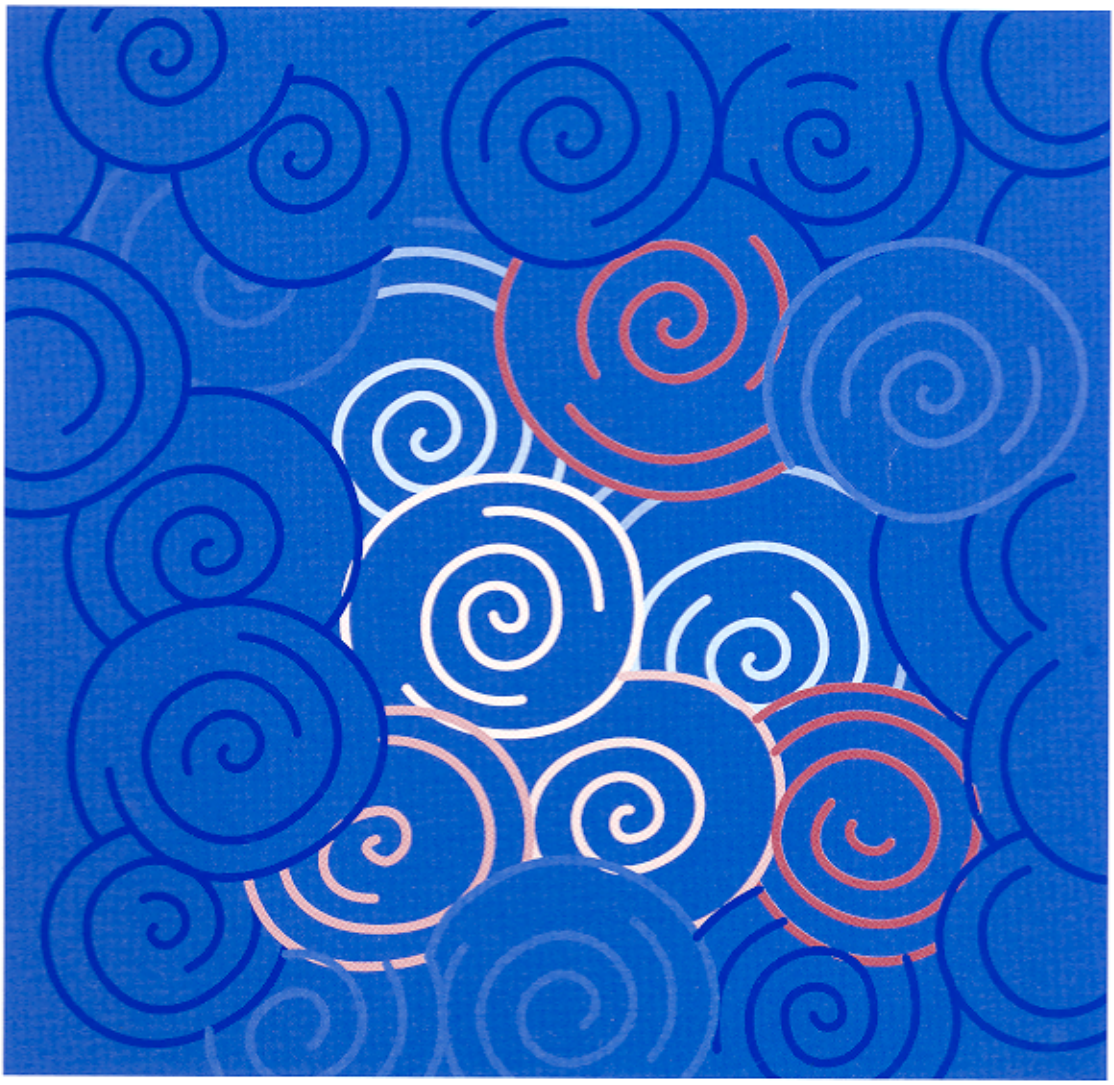
Economic & Social Affairs

Consolidated List of Products

Whose Consumption and/or Sale
Have Been Banned, Withdrawn, Severely Restricted
or Not Approved by Governments

Twelfth Issue

Pharmaceuticals



United Nations

DESA

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global and policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

Note

Symbols of United Nations documents are composed of the capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

UNITED NATIONS PUBLICATION

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INTRODUCTION

1. The Consolidated List of Products whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or Not Approved by Governments is part of a continuing effort in the United Nations system aimed at disseminating information widely on products harmful to health and the environment. It constitutes a tool which helps Governments to keep current with regulatory decisions taken by other Governments and assists them in considering the scope for their own eventual regulatory action. It enables government agencies, which review applications for product registration to ascertain easily restrictive regulatory decisions made in other countries. It complements and consolidates other information on the subject produced within the United Nations system, including data received from United Nations Environment Programme (UNEP) and Food and Agriculture Organization of the United Nations (FAO) on chemicals and from World Health Organization (WHO) on pharmaceuticals.

2. The main source of information on chemicals is the Prior Informed Consent (PIC) circulars issued by the Secretariat, which is maintained jointly by UNEP and FAO, of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, but the List also contains information previously received under the original PIC procedure as well as the Notification Scheme for Banned and Severely Restricted Chemicals. The source on pharmaceuticals is WHO Drug Information circulars and Pharmaceuticals Newsletters, which contain information received from Member States on the safety and efficacy of drugs including information gathered through drug monitoring programmes as well as certification scheme on the quality of pharmaceutical products moving in international commerce.

3. The question of the exchange of information on banned hazardous chemicals and unsafe pharmaceutical products was first considered by the General Assembly at its thirty-fourth session in 1979. By its resolution 37/137 (Annex I) of 17 December 1982, the General Assembly requested the Secretary-General to prepare the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely restricted or Not Approved by Governments on the basis of the work already being undertaken within the United Nations system.

4. By its resolution 39/229 (annex I) of 18 December 1984, the Assembly decided, inter alia, that an updated List should be issued annually, and that the data should be made available to Governments and other users through direct computer access to it. In accordance with the resolution, the format of the List has been kept under continued review in cooperation with the relevant organs, organizations and bodies of the United Nations system, with a view to its improvement, taking into account its complementary nature, the experience obtained and the views expressed by Governments. Also, in accordance with GA resolution 39/229, the Secretary-General informed the General Assembly at its forty-first session and every third year thereafter, through the Economic and Social Council (ECOSOC), on the implementation of the above resolutions.

5. The 1992 United Nations Conference on Environment and Development (UNCED) provided impetus to the ongoing work of the United Nations system in the area of chemical safety. In Chapter 19 of Agenda 21, entitled "Environmentally Sound Management of Toxic Chemicals", six programme areas were approved for action. One of them, "Information exchange on toxic chemicals and chemical risks", corresponds directly to the purposes for which the List was established. In this regard, decisions of intergovernmental bodies and the entry into force of the relevant Conventions have direct bearing on the composition and future direction of the List. Any developments in this area are carefully reviewed in order to make appropriate changes in the future issues of the List.

6. The Economic and Social Council in its resolution 2001/33, of 26 July 2001, requested the Secretary-General, within existing resources, to continue to disseminate the list as widely as possible and to look at the possibility of using online dissemination in collaboration with the World Trade Organization (WTO), FAO, WHO and UNEP. In its most recent resolution 2004/55 of 23 July 2004, the Council requested the Secretary-General to continue to update the electronic version of the Consolidated List, alternating between chemicals and pharmaceuticals every year, while printing only new data to complement previously printed issues for the benefit of those, particularly in developing countries, who may not have easy access to the electronic version.

BACKGROUND

7. In 1985, the United Nations Secretariat, in close cooperation with the World Health Organization (WHO) and the then United Nations Environment Programme (UNEP) - International Register of Potentially Toxic Chemicals (IRPTC) - now named UNEP Chemicals, met at their first inter-agency coordinating meeting, and carried out the first review of the List. The review focused on arrangements for the preparation of future issues, the need for criteria for determining the inclusion of products, the question of the legal and public health context of regulatory actions that had not been included in the first issue of the List, and the treatment of commercial data. As a result of the review, a memorandum of collaboration, outlining the division of responsibilities among WHO, UNEP Chemicals and the United Nations Secretariat was agreed upon. Since the first triennial review, the arrangements for the production of the List have remained essentially the same.

8. In 1995, at an inter-agency coordinating meeting, it was decided to divide the List into two separate issues, each to be

published in alternate years, one focusing on pharmaceuticals and the other on chemicals. The sixth issue of the List, the first under the new arrangement, was entirely devoted to pharmaceuticals and the seventh to chemicals, with subsequent issues following the same pattern. Dividing the List into two categories, pharmaceuticals and chemicals, has made it more accessible to a greater number of users, and has made the various databases more manageable.

Important recent Developments

9. Chapter 19 of Agenda 21 emanating from the United Nations Conference on Environment and Development (UNCED) reflects the preoccupation and the work of the organizations of the United Nations system in the area of environmentally sound management of toxic chemicals. The current work on the issue of products harmful to health and the environment is based on the principles indicated in Chapter 19, which encourage increased national and international efforts for intensive international work and improved coordination of international activities. Furthermore, chapter 19 states the need for increased coordination of United Nations bodies and other international organizations involved in chemical assessment and management.

10. As a result of continuous collaboration between FAO and UNEP on the principle of prior informed consent, the Conference of Plenipotentiaries in Rotterdam, Netherlands adopted the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade on 10 September 1998. It was signed by 72 States and one regional economic integration organization, and entered into force on 24 February 2004.

11. Another major development was the adoption of the Stockholm Convention on Persistent Organic Pollutants. The convention was adopted and opened for signature in Stockholm on 22-23 May 2001. 91 Countries and the European Union signed the treaty. The prompt entry into force of the Stockholm Convention on 17 May 2004 is an important step towards achieving progress in the implementation of the recommendations contained therein.

12. The World Trade Organization (WTO) addresses the issue of the export of domestically prohibited goods (DPGs). More specifically the WTO Committee on Trade and Environment (CTE) has been examining this issue since 1995 when the mandate of the General Agreement on Tariff and Trade (GATT) Working Group on Export of Domestically Prohibited Goods and other Hazardous Substances was incorporated in the work programme of the Committee. The CTE has identified a number of international instruments relevant to the export of DPGs, but much progress remains to be achieved. However, since 1997 there has been a positive exchange of information and experience on trade related issues between the Committee and the Secretariats of relevant multilateral environmental agreements (MEAs), including the Rotterdam and Stockholm Conventions.

Dissemination and utilization

13. The List continues to present, in a unified manner, information on restrictive regulatory decisions taken by Governments on a range of pharmaceutical products and agricultural and industrial chemicals. As such, it is a recognized source of valuable information for Governments in ensuring access to information that may be useful in taking appropriate regulatory measures on chemical and pharmaceutical products in the light of their particular national circumstances. Furthermore, the provision of information on trade names, under which these products are marketed, adds value to the Consolidated List and makes it easier for national authorities and others monitoring such activities, to identify a restricted product available in the local market. The identification of the chemical products with its manufacturers also provides access to safety data sheets and other information available from the manufacturers. Additionally, commercial data provides an easy method to cross-reference trade names with recognized common scientific names under which most regulatory information is available.

14. In addition to Governments, other users of the List include intergovernmental organizations, academic institutions, concerned non-governmental organizations, the media, and other members of civil society. The List has proved to be an important tool for public interest and consumer groups in bringing to the attention of Governments and manufacturers the need to remove hazardous products from the marketplace, and to raise awareness among public officials and non-governmental organizations on health-related effects of using certain products.

15. There is a continuous increase in the promotion of the dissemination and utilization of the List. In particular, a number of concerned non-governmental organizations make requests to have access to the List and also provide feedback on the positive use of the List. Starting with the second issue of the List, a questionnaire has been included in the List for purposes of assisting the Secretariat to determine the best way to disseminate the information in the List and the use to which it is being put. The List continues to play an important role in facilitating information on products, which are severely restricted or banned in some countries but are still available in others. The Secretariat considers feedback from users very valuable in exploring the possibility of making the List available online and if feasible to provide free of charge internet access to its databases. The Secretariat continues to make efforts to produce List data on diskettes/CDs with search facilities and to make them available as sales items in addition to the printed text.

Format, contents and scope

16. Continuous review of the format and content of the List have made it possible to expand its coverage and scope. While the List, in line with General Assembly resolution 37/137 has remained easy to read and understand, the number of products listed and the number of Governments reporting has regularly increased with each new issue of the Consolidated List. Thus, the first issue of the List covered less than 500

products regulated by 60 Governments, the fifth issue covering both pharmaceuticals and chemicals included more than 700 products with regulatory actions taken by 94 Governments. At present, the two most recently updated issues, eleventh containing chemicals and twelfth containing pharmaceuticals, both of which are available on the web, contain information on over 1100 products regulated by 115 states and non-state entities.

17. Information included in the List on pharmaceutical products is provided by WHO, which collects and disseminates it through various exchange mechanisms, among them: (i) the international drug monitoring programme, which collaborates in monitoring suspected adverse drug reactions with the aim of identifying, at the earliest possible moment, the liability of a drug to produce undesirable effects which were not detected during its clinical trials; (ii) the WHO certification scheme on the quality of pharmaceutical products moving in international commerce, through which the exporting country is required to certify, on request, the quality control standard of the drugs. In the case of products not authorized for sales or distribution in the exporting country, the reasons are explicitly stated and, when relevant, grounds for refusal are disclosed; (iii) WHO drug information circulars contain information received from Member States on the safety and efficacy of drugs, which include any decision to prohibit or limit the availability of a drug already in use, any decision to refuse the approval of a new drug and any approval when accompanied by restrictive provisions.

18. As with previous issues, the scope of information contained in the List will remain essentially the same. The List is divided in two parts. Part I, compiled by the United Nations and WHO, contains text of restrictive regulatory decisions taken by competent national authorities on pharmaceutical products. Part II of the List presents commercial information (trade/brand names) and is compiled by the United Nations Secretariat from publicly available sources. In addition, the List includes an alphabetical and classified listing of products and three indexes: scientific and common names, trade/brand names and Chemical Abstract Service (CAS) Registry numbers.

Part I

19. Part one, prepared jointly by the United Nations and WHO, presents in unified manner information on restrictive regulatory decisions taken by Governments on pharmaceutical products. While the information cannot be regarded as exhaustive, either in terms of products or regulatory measures, it covers regulatory actions taken by a total of 90 Governments on some 500 products. In this context it should be noted that decisions taken by a limited number of Governments on a specific product may not be representative of the position of other Governments, particularly in view of differing risk-benefit considerations. It is also important to realize that all pharmaceutical products are potentially harmful if not correctly used. In addition, the fact that a given product is not listed as regulated by a country does not necessarily mean that it is permitted in that country. Rather it could mean that the relevant regulatory decision has not been communicated to the United Nations or its agencies. It is also important to note that the issue of the efficacy of products in the regulatory text is not addressed, but is an aspect that may be crucial when a Government is considering a product for regulatory action of its own.

20. To ensure that the list focuses on products harmful to health and the environment, criteria for the inclusion of pharmaceutical and chemical products was developed in 1985 and transmitted to Governments for their comments. The criteria, revised in light of the comments received, is contained in annex II. The application of the criteria significantly facilitated the screening of information for the list. However, the interpretation by the Governments of the criterion "severely restricted", in particular, continues to vary widely, leading to considerable inconsistency in reporting on national restrictive regulatory measures. When necessary, additional information and/or clarifications are requested from Governments; products, which clearly do not meet the criteria, have been omitted after consultation with Governments. Information received from non-governmental organizations is also verified with Governments. When there is evidence that a listed product is no longer available or the safety issue has been resolved, the need for retaining the entry in subsequent issues of the list is routinely reviewed.

21. The List does not include information on widely used food additives, which fall outside the scope of the List. They are considered by the Codex Alimentarius Commission, which is jointly managed by FAO and WHO. Psychotropic and narcotic substances scheduled under one of the international conventions are included only where a Government is controlling a substance more rigorously than required under the relevant international convention.

22. WHO regularly provides explanatory comments regarding information on related national regulatory actions taken on most pharmaceutical products. These comments contain useful information reflecting the position of Governments on their regulatory actions in the light of different national priorities, thus providing a context for these actions. The regulatory information also includes references to the relevant legal and statutory documents in order to enable the user to ascertain the legal context and scope of the regulations. Such references cannot be given for some products since product licenses are often made or amended by an administrative decision, which is not published. There are also bibliographical references to scientific and technical studies by international organizations relating to some products.

23. Part one is further sub-divided into two sections, i.e. monocomponent products and Combination & group products. Products are listed alphabetically within each section. International Non-Proprietary Names (INN) have been used, whenever possible, to identify pharmaceuticals products. Each product entry includes, where available, the Chemical Abstracts Service Registry Number (CAS number); other scientific names, common names and synonyms; the effective date on which the regulation came into force; a summary of regulatory measures taken by Governments; brief explanatory comments where available and legal and bibliographical references. Entries within each product are listed by country,

and sorted by effective date. A listing of the references cited at the end of the regulatory text, and if available, the addresses where copies of the documents can be obtained, are given in annex III.

Part II

24. Part Two, compiled by the United Nations Secretariat, presents commercial information, including data on trade names, relating to a large proportion of the products covered in Part One. It provides an easy way to cross-reference commercial names with recognized common scientific names, under which the regulatory data is presented. Trade name data is included for most of the monocomponent and some group products. It should be noted that manufacturers and distributors might maintain a proprietary trade name while changing the ingredients or the formulation. Therefore it is important to check the contents of a specific product using an identified trade name in order to ensure the accuracy of the reference to the given product.

25. The first step in compiling the commercial data is to review various on-line databases and commercial directories for alternative nomenclature for the regulated products. Commercial names are then separated from alternate Scientific names. Trade names are collected irrespective of the manufacturer's form of ownership and include transnational and national enterprises from all regions.

26. The commercial information is organized under the same headings as the regulatory data in order to facilitate easy reference. Each product entry includes the product name and CAS number, and a listing of known trade names.

Users' Guide

If you are interested in finding out what restrictive regulatory action has been taken on a certain product or what commercial information is available - for example, on chloroform - you would look up the page reference in the alphabetical listing of products (pages 8 - 19). But if you only know one of the trade names, such as "Eludril", and not the product name Chloroform, you would consult index C for the page reference (pages 465 - 558). On the other hand if you are familiar with Chloroform by one of its scientific names, for example, "TRICHLOROMETHANE", you would consult index B for the appropriate page reference (pages 432 - 464). Also, if only a C.A.S. number of a product is known, you would look into index A (pages 415 - 431) for product name and the page reference. In addition to three indices described above, a classified listing of products (pages 20 - 29) is also included, grouping the products according to their usage. Furthermore, a list of codes, used throughout the publication to denote countries and territories, is provided on page 30.

Data verification was carried out to the best of our capabilities within the given time constraints. However, there may still be inaccuracies, which have not been identified and corrected when checking and proofreading the text. Comments on the contents and suggestions for the improvement of the Consolidated List are most welcome. They should be sent to: The Director, OESC/DESA, United Nations Secretariat, New York, NY 10017, U.S.A.

ALPHABETICAL LISTING OF PRODUCTS

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PHARMACEUTICALS (MONOCOMPONENT PRODUCTS)

ANALGESICS, ANTIPYRETICS, AND NONSTEROIDAL ANTIINFLAMMATORY DRUGS

ANESTHETICS

ANTIALLERGICS

CLASSIFIED LISTING OF PRODUCTS

NOT CLASSIFIED

OPTHALMOLOGICAL PREPARATIONS

OTHER PHARMACEUTICAL PRODUCTS

PHARMACEUTICALS (COMBINATION AND GROUP PRODUCTS)

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LIST OF CODES USED FOR COUNTRIES, TERRITORIES AND AREAS

@EC European Union
@WD World
ARE United Arab Emirates
ARG Argentina
ARM Armenia
AUS Australia
AUT Austria
BDS Brunei Darussalam
BEL Belgium
BGD Bangladesh
BGR Bulgaria
BHR Bahrain
BLZ Belize
BRA Brazil
BRB Barbados
CAN Canada
CHE Switzerland
CHL Chile
COE Council of Europe
COG Congo
COL Colombia
CRI Costa Rica
CUB Cuba
CYP Cyprus
DEU Germany
DNK Denmark
DOM Dominican Republic
EGY Egypt
EME European Agency
ESP Spain
ETH Ethiopia
FIN Finland
FRA France
GBR United Kingdom
GHA Ghana
GRC Greece
HKG Hong Kong
HND Honduras
HUN Hungary
IDN Indonesia
IND India
IRL Ireland
IRN Iran
IRQ Iraq
ISL Iceland
ISR Israel
ITA Italy
JAM Jamaica
JOR Jordan
JPN Japan
KOR Republic of Korea
KWT Kuwait
LBN Lebanon
LIY Libyan Arab Jamahiriya
LKA Sri Lanka
LTH Lithuania
MAR Morocco
MEX Mexico
MUS Mauritius
MYS Malaysia
NGA Nigeria
NLD Netherlands
NOR Norway
NPL Nepal
NZL New Zealand
OMN Oman
PAK Pakistan
PAN Panama
PER Peru
PHL Philippines
PRT Portugal
ROM Romania
RWA Rwanda
SAU Saudi Arabia
SDN Sudan
SGP Singapore
SLV Slovak Republic
SUN Union of Soviet Socialist Republics
SUR Suriname
SWE Sweden
SYR Syria
TCD Chad
THA Thailand
TUN Tunisia
TUR Turkey
URT United Republic of Tanzania
USA United States
VEN Venezuela
VTN Viet Nam
YEM Yemen
ZAF South Africa
ZMB Zambia
ZWE Zimbabwe

Product Name **Acarbose**

C.A.S. number **56180-94-0**

Scientific and common names, and synonyms

D-GLUCOSE, O-4,6-DIDEOXY-4-[[[1S-(1?,4?, 5?, 6?)]-4,5,6-TRIHYDROXY-3-(HYDROXYMETHYL)-2-CYCLOHEXEN-1-YL]-AMINO]-?-D-GLUCOPYRANOSYL-(1?4)-O-?-D-GLUCOPYRANOSYL-(1?4)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Dec 1994**	The product information has been rvised to state that acarbose drug may cause ileus-like symptoms and that the drug should be discontinued should such symptoms appear. Concomitant use of acarbose and oral hypo- glycaemics or insulin is contraindicated as this may lead to hypoglycaemia. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.129, , Dec 1994)
JPN	**Dec 1996**	The product information has been revised to state that hypoglycaemia and hypoglycaemic symptoms developed in elderly debilitated patients when no other antidiabetics were administered. [See also voglibose.]. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.140, , Dec 1996) **WHO Comment : Acarbose, ana-glucosidase inhibitor, is used as an adjunctive therapy in the control of postprandial hyperglycaemia in non-insulin-dependent diabetes mellitus. Use of two or more hypoglycaemic drugs is not recommended.**

Product Name **Acetanilide**

C.A.S. number **103-84-4**

Scientific and common names, and synonyms

ANTIFEBRIN

N-PHENYLACETAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1971**	This analgesic and antipyretic has been banned for use in over-the-counter preparations due to the risk of aplastic anaemia. It was subsequently voluntarily withdrawn from prescription products. **WHO Comment : Acetanilide, a para-aminophenol derivative with analgesic, antipyretic and weak antiinflammatory activity, was introduced into medicine in 1886. It subsequently proved to be excessively myelosuppressive and has been superseded by safer alternatives.**

Product Name **Acetarsol**

C.A.S. number **97-44-9**

Scientific and common names, and synonyms

ACETARSONE

N-ACETYL-4-HYDROXY-M-ARSANILIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction.

Product Name **Acetarsol**

C.A.S. number **97-44-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
		WHO Comment : Acetarsol, which has antiprotozoal and antitrichomonal activity, has largely been discarded for systemic use because of its potential to cause systemic poisoning. However, topical preparations for vaginal trichomoniasis are still available and it is included in low concentrations (equal to or less than 0.45%) in some medicated toothpastes.

Product Name **Acetylfuratrizine**

C.A.S. number **1789-26-0**

Scientific and common names, and synonyms

N-(6-(2-(5-NITRO-2-FURYL)VINYL)-1,2,4-TRIAZIN-3-YL) ACETAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Withdrawn from all marketed preparations on the grounds that it has been superseded by safer and more effective preparations.
SAU		The withdrawal of nitrofuran compounds is under consideration since they have been superseded by safer and more effective preparations.
VEN		Not approved for use and/or sale.
		WHO Comment : Acetylfuratrizine, a nitrofuran derivative, was formerly used as an antiinfective agent. It has, however, been superseded by safer compounds and WHO has no information to suggest that it remains commercially available.

Product Name **Acetylleucine**

C.A.S. number **149-80-6**

Scientific and common names, and synonyms

N-ACETYL-DL-LEUCINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**1995**	The Committee for the Evaluation of Medicines has decided that products containing acetylleucine may no longer be dispensed because the manufacturer has not provided any evidence of efficacy. (Reference: (NPHWB) Pharmaceutisch Weekblad, 28(5):128, , 1994)
		WHO Comment : The products were indicated for the treatment of vertigo and had been authorized for marketing under the "grandfather" clause, which waives full registration requirements for products marketed before 1963.

Product Name **Acetylsalicylic acid (paediatric)**

C.A.S. number **50-78-2**

Scientific and common names, and synonyms

ASPIRIN

Legislative or regulation action

Product Name **Acetylsalicylic acid (paediatric)**

C.A.S. number **50-78-2**

Scientific and common names, and synonyms

BENZOIC ACID, 2-(ACETYLOXY)-

SALICYLIC ACID ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**1986**	The Intercantonal Office for Drug Control has decided that products containing salicylates should bear on the package a warning against use by children under twelve years of age, except on medical advice. The package leaflets directed to both physicians and patients should additionally include warnings concerning Reye's syndrome in both the sections "Limitations of use" and "Undesirable effects". (Reference: (CHBCM) Bulletin Mensuel, 8, , 1986)
IRQ	**1986**	The National Board for the Selection of Drugs has decided to prohibit the sale of products containing acetylsalicylic acid without a medical prescription. The product information should contain a warning that acetylsalicylic acid should be avoided in children suffering from influenza or chickenpox and that children under 12 years of age should receive acetylsalicylic acid only on medical advice.
ISR	**Feb 1986**	The Ministry of Health has ordered that preparations of acetylsalicylic acid intended specifically for children be subjected to prescription control and that all preparations should contain a warning referring to the reported risk of Reye's syndrome in children and young adults with fever due to viral infections.
ITA	**Jun 1986**	The Italian Health Council has decided that all products containing acetylsalicylic acid should bear the following warning: "Consult your physician before administering this product to children and teenagers with viral diseases such as influenza or chicken pox. Discontinue use immediately if persistent vomiting or undue sleepiness occurs.".
IRL	**9 Jun 1986**	The National Drugs Advisory Board, in agreement with manufacturers, requires that all paediatric dosage forms be available on prescription only. All preparations should carry the warning "This product should not be given to children, particularly those under 12 years of age, without medical advice.".
GBR	**10 Jun 1986**	The Committee on Safety of Medicines has advised that acetylsalicylic acid should not be administered to children under 12 years of age except on medical advice. Leading manufacturers have declared their intention to stop supplying paediatric preparations.
AUS	**11 Jun 1986**	The Adverse Drug Reactions Advisory Committee has warned that acetylsalicylic acid should not be given to children and teenagers with fever. The warning does not relate to use for disorders in children and teenagers who do not have fever.
ESP	**7 Aug 1986**	The Director General for Pharmacy and Health Products of the Ministry of Health has issued guidelines for package inserts for preparations containing acetylsalicylic acid. A warning should be included stating that the preparation should be administered to children and adolescents with febrile conditions such as influenza or varicella only on medical advice.
HKG	**1 Sep 1986**	The Medical and Health Department requires that the product information for all preparations containing acetylsalicylic acid must warn against its use in children under 12 years of age, except on medical advice. Manufacturers are urged to withdraw all paediatric preparations.
DEU	**Oct 1986**	The Federal Health Office requires pharmaceutical preparations containing acetylsalicylic acid to bear a warning against use for feverish conditions in children and young people unless on medical advice and only if other measures have failed.
OMN	**Dec 1986**	The Central Drug Committee has informed doctors and pharmacists that no products containing acetylsalicylic acid (aspirin) should be given to children under 12 years of age who have chicken pox, influenza or any other febrile illness. Paediatric aspirin preparations will be available only from pharmacies. Products for export containing acetylsalicylic acid should bear the following statutory warning on new packs:"This product should not be given to children, particularly those under 12 years of age, without

Product Name **Acetylsalicylic acid (paediatric)**

C.A.S. number **50-78-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		medical advice."
EGY	**1987**	The Technical Committee for Drug Control has decided that the product information of all paediatric pharmaceutical products containing acetylsalicylic acid should bear the following warning: "Consult a physician before giving aspirin to children aged less than 12 years, especially in cases of influenza and chickenpox, to avoid risk of Reye's Syndrome." (Reference: (EGYDC) Decision of the Egyptian Technical Committee for Drug control, Vol.5(2), 1, 1987)
NGA	**Jan 1987**	Because of the suspected link between the use of acetylsalicylic acid in children below the age of 12 years and Reye's syndrome, importation, manufacture, sale and distribution of paediatric products containing acetylsalicylic acid or other salicylates have been prohibited. The labels of non-paediatric products must bear the warning: "Not for use in children below 12 years of age". (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988)
CHL	**2 Feb 1987**	The Institute of Public Health of Chile has decided that all pharmaceutical products containing acetylsalicylic acid should carry a warning on the label that the drug should not be given to children under 12 years of age with febrile viral diseases without consulting a doctor. (Reference: (CHLRS) Resolution of the Minister of Health, No.01042, , Feb 1987)
DNK	**1 Jul 1987**	The National Board of Health has decided that pharmaceutical preparations containing acetylsalicylic acid in paediatric dosages (less than 200mg/tablet) should bear the following warning: "Not to be given to feverish children without consulting a doctor.".
SGP	**1 Dec 1987**	The Ministry of Health has made it mandatory for all aspirin products to bear the cautionary label: "Caution: not to be given to persons below the age of 16 years except under the direction of a doctor" before the products can be sold in the market. The public is advised not to give their children any medicine containing aspirin unless otherwise advised by the doctor. (Reference: (SGPMA) Medicines Act (Chapter 176), No.S 230/87, 1078, Aug 1987)
SWE	**1988**	The National Board of Health and Welfare has revised the product information for preparations containing acetylsalicylic acid to recommend that they should not be taken by febrile children under 18 years of age and to indicate that paracetamol is the drug of choice in these circumstances. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, Vol.12(6), 145, 1987)
BEL	**1 Jan 1988**	The Ministry of Public Health and the Environment requires pharmaceutical products containing acetylsalicylic acid to bear the following warning: "This medicine contains acetylsalicylic acid. Do not use in feverish children without medical advice.". (Reference: (BELMD) Ministerial Decree, , , June 1987)
USA	**Jun 1988**	The United States Food and Drug Administration has revised the labelling of products containing acetylsalicylic acid to read: "Children and teenagers should not use this medicine for chickenpox or flu symptoms before a doctor is consulted about Reye's syndrome, a rare but serious illness, reported to be associated with aspirin." (Reference: (FEREAC) Federal Register, 53(111), 21633, 1988)
USA	**Apr 1994**	The FDA proposed to revise the labelling of products containing acetylsalicylic acid (including buffered acetylsalicylic) alone or in combination with an antacid to include the following statement: ?IMPORTANT: See your doctor before taking this product for your heart or for other new uses of aspirin [acetylsalicylic acid], because serious side effects could occur with self- treatment?. [See also Combinations] (Reference: (FEREAC) Federal Register, 58(201) , p. 54224, 1993)
USA	**Apr 1994**	The Food and Drug Administration proposed to extend to products containing bismuth subsalicylate and all oral and rectal over-the- counter products that contain acetylsalicylic

Product Name **Acetylsalicylic acid (paediatric)**

C.A.S. number **50-78-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		acid (aspirin) or other salicylates the following warning: "Children and teenagers who have or are recovering from chicken pox, flu symptoms or flu should not use this product. If nausea or fever occur, consult a doctor because these symptoms could be an early sign of Reye syndrome, a rare but serious illness." [See also Bismuth subsalicylate] (Reference: (FEREAC) Federal Register, 58(201) , p. 54228, 1993)
LKA	**9 Jul 1996**	Registration of a particular product was rejected because the picture of children on the label was considered inappropriate. (Reference: (LKADES) Drug Evaluation Sub-Committee, , ,)
FRA	**May 1997**	A special form of 100 mg tablets to chew or suck was withdrawn because of risk of aspiration in small children. The manufacturer stopped marketing of this medicinal product. (Reference: (FRAAMP) Press Release, , , 14 May 1997)
BRA	**Jun 2001**	The National Health Surveillance Agency requires all pharmaceutical products containing acetylsalicylic acid to bear a warning against using such products in children with chicken pox or flu symptoms without consulting a physician about Reye's syndrome. (Reference: (BRARES) Resolucao n., 529/ANVISA, , 06 Aug 2001)
GBR	**Oct 2002**	The Medicines Control Agency (MCA) has restricted the use of acetylsalicylic acid products in 16 year old and younger children since the risk of aspirin associated Reye's syndrome exists in all children up to this age group. All acetylsalicylic acid containing products are required to include this restriction in the product monograph. (Reference: (GBRSTE) Statement, 2002/0436, , 22 Oct 2002)
ESP	**20 Jun 2003**	All paediatric OTC medicinal preparations containing salicylates/acetylsalicylic acid (Aspirin) are being withdrawn from the market. This measure has been undertaken to prevent the use of these products in children with viral fever and thereby reduce the risk of Reye's syndrome in these children. For non-paediatric OTC products containing salicylates/acetylsalicylic acid the Summary of Product Characteristics (SPC) will have to be modified to include that OTC products for adult use are contraindicated in children below the age of 16 years and prescription products are contraindicated for the treatment of fever, chickenpox and viral fevers in patients below 16 years of age. (Reference: (ESPSPS) Communication to WHO, , , 08 July 2003)
NLD		The Board for the Evaluation of Medicines requires information for patients on products containing acetylsalicylic acid to contain the statement: "To be used in children with chickenpox or influenza only on the advice of a doctor.". **WHO Comment : Acetylsalicylic acid, a nonsteroidal anti-inflammatory, analgesic and antipyretic agent, was introduced into medicine in 1899 and has since been widely available in over-the-counter preparations. Recent studies carried out in the USA have shown an association between acetylsalicylic acid consumption in children and the development of Reye's syndrome (a rare condition characterized by a combination of encephalopathy and liver disorder and usually preceded by an acute viral illness, such as influenza, diarrhoea, or chickenpox). Many drug regulatory authorities have acted to caution against the use of the drug in children and young adults with febrile conditions. Even within this group the risk of exposure is remote and has been estimated to be of the order of 1.5 per million. This warning also concerns products containing other salicylates. The new indication of acetylsalicylic acid - prophylaxis of myocardial infarction due to its antithrombotic effect - requires long-term use and may lead to serious adverse reactions, including cerebral haemorrhage. Acetylsalicylic acid retains a valuable place in medicine and remains in the WHO Model List of Essential Drugs.** **(Reference: (WHODI) WHO Drug Information, 1:5, , 1985)**

Product Name **Acitretin**

Legislative or regulation action

C.A.S. number **55079-83-9**

Scientific and common names, and synonyms

2,4,6,8-NONATRAENOIC ACID, 9-(4-METHOXY-2,3,6-TRIMETHYLPHENYL)-3,7-DIMETHYL-2,4,6,8-NONATETRAENOIC ACID, (ALL-E)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@EC	**14 Dec 1990**	The Committee for Proprietary Medicinal Products recommended that the product information for preparations containing acitretin should state that contraception should be maintained for 2 years after cessation of treatment and that patients should not donate blood for 1 year after the end of therapy. (Reference: (CPMPPO) Pharmacovigilance Opinion, 9, , 14 Dec 1990)
FRA	**Jun 1991**	The marketing authorization for products containing acitretin was suspended, on the grounds that the analysis of blood samples from patients receiving the drug had indicated etretinate to be a possible metabolite. Acitretin was reintroduced in April 1991 with an amended product information stating that contraceptive measures must be taken for a minimum of one year after discontinuation of treatment and preferably for two years and that patients should not donate blood either during treatment or for one year thereafter. (Reference: (FRAMS) Ministry of Social Affairs and Integration, , , June 1991) (Reference: (FRAMHS) Ministry of Health and Social Affairs, , , 27 Oct 1990) **WHO Comment : Acitretin, a retinol derivative, was introduced in 1989 for the treatment of severe psoriasis. By the end of 1990, acitretin was confirmed to be metabolized in part to etretinate. Marketing authorization was suspended temporarily in France while the product information was modified to conform to the recommendations issued by the Committee for Proprietary Medicinal Products of the European Communities. Acitretin remains registered in several countries. See also WHO comment for etretinate.**

Product Name **Acridine derivatives**

C.A.S. number **260-94-6**

Scientific and common names, and synonyms

AMINACRINE

ACRIFLAVINE

EUFLAVINE

ETHACRIDINE

PROFLAVINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**1973**	These products are only available as topical disinfectants in concentrations not higher than 1%.
DNK	**Sep 1979**	Proflavine was withdrawn from all dental-care products in May 1978, following demonstration of mutagenic activity in vitro. Euflavine was similarly withdrawn as of September 1979. No direct evidence exists of any risk to man and the extent to which these substances penetrate mammalian cells is uncertain. Nevertheless, the Registration Board has recommended that the restriction should apply to all acridine disinfectants "that many regard as obsolete and whose safety is questionable".
VEN		Not approved for use and/or sale. **WHO Comment : Acridine derivatives with antiseptic and disinfectant activity, including acriflavine, proflavine and euflavine, were formerly used in the treatment of infected wounds and burns. Such use has largely been discontinued on the grounds that safer and more effective alternatives are now available. Following demonstration of the mutagenic activity of proflavine in 1978 it was withdrawn from**

Product Name **Acridine derivatives**

C.A.S. number **260-94-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		dental products in Denmark. Subsequently, euflavine was similarly withdrawn.

Product Name **Alatrofloxacin mesilate**

C.A.S. number **157605-25-9**

Scientific and common names, and synonyms

7-{(1R,5S,6S)-6-[(S)-2-AMINOPROPIONAMIDO)PROPIONAMIDO]-3-AZABICYCLO[3.1.0]HEX-3-YL}-1-(2,4-DIFLUOROPHENYL)-6-FLUORO-1,4-DIHYDRO-4-OXO-1,8-NAPHTHYRIDINE-3-CARBOXYLIC ACID MONOMETHANESULPHONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARM	**Jul 2000**	The Drug and Medical Technology Agency have rejected registration of alatrofloxacin because recent studies have shown serious and unpredictable liver injuries after administration of the drug. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
SGP		The National Pharmaceutical Administration in the Ministry of Health has not approved alatrofloxacin since it is associated with hepatic adverse reactions. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Albumin**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**5 Dec 1993**	The Ministry of Health decided that all blood and every placenta used for the manufacture of albumin must be shown to be derived from a donor who has never received an extract of human growth hormone and has no family history of neurodegenerative disease. (Reference: (FRAAMC) Communiqué de Presse, , , 01 Dec 1993)
DEU	**Nov 1994**	Following plans of the Federal Health Office to suspend marketing authorization of a product containing albumin manufactured from human placenta, the manufacturer has voluntarily withdrawn the licence. (Reference: (DAZ) Deutsche Apotheker Zeitung, 134(2), , 1994)
GBR	**Nov 1997**	Acting on advice from the Medicines Control Agency, the UK supplier has recalled 3 batches of human serum albumin (Amerscan Pulmonate II Technetium Lung Agent®: Nycomed Amersham), as a precautionary measure after post-donation information revealed that a blood donor was subsequently diagnosed with New Variant Creutzfeldt-Jakob disease. (Reference: (GBRNBA) Communication, , , 20 Nov 1997) (Reference: (GBRDPR) EU/EEA Rapid Alert - Defective Product Recall, , , 17 Nov 1997) **WHO Comment : Although there is no proven or even probable instance of transmission of Creutzfeldt-Jakob Disease (CJD), also known as Trans- missible Spongiform Encephalopathy, by blood, blood components or plasma derivatives, increased awareness has raised concern about such a possibility. While published epidemiological studies give some reassurances that transmission of CJD has not occurred through blood, they are limited in scope, and improved surveillance for CJD is essential. In addition to routine internationally recognized donor selection**

Product Name **Albumin**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		criteria the following donors should be excluded: donors who have been treated with extracts from human pituitary glands, donors who have familial history of CJD, Gerstmann- Sträussler-Scheinker syndrome (GSS) or Fatal Familial Insomnia (FFI), and donors who have received a human dura mater graft. (Report of a WHO Consultation on Medicinal and other Products in Relation to Human and Animal Transmissible Spongiform Encephalopathies. (WHO/EMC/ZOO/97.3; WHO/BLG/97.2, WHO, Geneva, 24-26 March 1997.)) **(Reference: (WHOCON) See also Placental tissue derived medication in full edition, , ,)**

Product Name **Alclofenac**

C.A.S. number **22131-79-9**

Scientific and common names, and synonyms

BENZENEACETIC ACID, 3-CHLRO-4-(2-PROPENYLOXY)-

(4-ALLYLOXY-3-CHLOROPHENYL) ACETIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1977**	Products containing alclofenac were rejected following evidence of metabolite mutagenicity.
CYP	**1979**	Withdrawn following reports that an epoxide urinary metabolite has mutagenic activity.
DEU	**1979**	Registration has been suspended following the voluntary withdrawal of alclofenac in the United Kingdom.
GBR	**1979**	Alclofenac was voluntarily withdrawn by the manufacturer following reports of skin rashes associated with its use.
ITA	**1979**	Withdrawn following reports that an epoxide urinary metabolite has mutagenic activity.
NZL	**1979**	Voluntarily withdrawn from the market.
EGY	**Mar 1984**	Pharmaceutical preparations containing this antiinflammatory agent no longer qualify for registration to avoid the potential risk associated with a urinary metabolite having mutagenic activity.
GRC	**1985**	Withdrawn from the market.
DNK		Voluntarily withdrawn by the manufacturer.
IDN		Registration has been refused following reports that an epoxide urinary metabolite has mutagenic activity.
IND		Not approved for marketing following reports that an epoxide urinary metabolite has mutagenic activity.
JOR		Registration has been refused following reports that an epoxide urinary metabolite has mutagenic activity.
MAR		Registration has been refused following reports that an epoxide urinary metabolite has mutagenic activity.
		WHO Comment : Alclofenac, a phenylacetic acid derivative with analgesic, antipyretic and antiinflammatory activity, was introduced in 1972 for the treatment of rheumatic disorders. In the late 1970s its use was associated with a high incidence of adverse effects, mainly skin rashes, and a urinary metabolite was

Product Name **Alclofenac**

C.A.S. number **22131-79-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		reported to have mutagenic activity (positive Ames test). This resulted in the withdrawal of the drug, in some cases voluntarily, from several countries. In others registration has been refused. The reported mutagenic potential has been questioned by some investigators and the drug remains on the market in at least three countries with highly evolved regulatory authorities.

Product Name **Aldesleukin**

Scientific and common names, and synonyms

EPIDERMAL THYMOCYTE ACTIVATING FACTOR

INTERLEUKIN-2

T-CELL GROWTH FACTOR

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		The National Pharmaceutical Administration in the Ministry of Health has restricted the use of aldesleukin to medical oncologists in view of life-threatening toxicities, which have been reported with the drug. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Allergen extracts**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Apr 1986**	The National Board of Health and Welfare required producers of all marketed allergen extracts to file registration applications before 1 April 1986. Extracts currently available were allowed to remain on the market pending a final decision. However, having regard to recently reported adverse reactions, existing preparations derived from mites, moulds and certain domestic animals were withdrawn with immediate effect. Provision was, however, made for further clinical trial of such formulations.

Product Name **Almitrine**

C.A.S. number **27469-53-0**

Scientific and common names, and synonyms

2,4-BIS(ALLYLAMINO)-6-(4-(BIS-(P-FLUOROPHENYL)METHYL)-1-PIPERAZINYL)-S- TRIAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU		The indications for use of almitrine have been restricted to chronic obstructive pulmonary disease with respiratory insufficiency. **WHO Comment : Peripheral neuropathy has been reported in a few patients receiving almitrine for long periods. The indications for treatment have**

Product Name **Almitrine**

C.A.S. number **27469-53-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		consequently been restricted in the Federal Republic of Germany. Some other countries have advised doctors to maintain patients under close supervision throughout treatment and to restrict dosage to two out of every three months.

Product Name **Aloxiprin**

C.A.S. number **9014-67-9**

Scientific and common names, and synonyms

POLYMERIC CONDENSATION PRODUCT OF ALUMINIUM OXIDE AND 0- ACETYLSALICYLIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Dec 1986**	The Committee on Safety of Medicines has advised that preparations containing the acetylsalicylic acid pro-drug aloxiprin should not be administered to children under 12 years of age except on medical advice. (Reference: (GBMIL) Medicines Act Information Letter, No.48, , Oct 1986) **WHO Comment : Aloxiprin is a pro-drug of acetylsalicylic acid. See WHO comment for acetylsalicylic acid.**

Product Name **Alpidem**

C.A.S. number **82626-01-5**

Scientific and common names, and synonyms

IMIDAZOL[1,2-?]PYRIDINE-3-ACETAMIDE, 6-CHLORO-2-(4-CHLOROPHENYL)-N,N-DIPROPYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jan 1994**	The marketing authorization of the anxiolytic agent alpidem has been withdrawn because of several reports of hepatotoxicity, some of them fatal. (Reference: (FRAAMC) Communiqué de Presse, , , 06 Jan 1994)

Product Name **Alprostadil**

C.A.S. number **745-65-3**

Scientific and common names, and synonyms

PROST-13-EN-1-OIC ACID, 11,15,-DIGYDROXY-9-OXO, (11ALPHA, 13E, 15S)-

PGE1, PROSTAGLANDIN E1

(1R,2R,3R)-3-HYDROXY-2-[(E)-(3S)-HYDROXY-1-OCTENYL]-5-OXOCYCLOPENTANEHEPTANOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1991**	Products for intravenous administration containing alprostadil were contraindicated in patients with cardiac disease, including inadequately treated coronary atherosclerosis, cardiac insufficiency and arrhythmia, cardiac infarction within the last six months, clinical or radiological suspicion of pulmonary oedema or infiltration, severe chronic airway obstruction, acute liver damage with elevation of transaminases or gamma-GT and an

Product Name **Alprostadil**

C.A.S. number **745-65-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		increased bleeding tendency. (Reference: (BGHBL) Bundesgesundheitsblatt, 3/91, 139, 1991) **WHO Comment : Alprostadil, a prostaglandin with vasodilating and platelet anti-aggregatory activity, was introduced in 1984 for the treatment of chronic arterial obstruction. Intravenous administration of the drug has been associated with adverse effects that have sometimes been severe. These include allergic reactions, pulmonary oedema and cardiac insufficiency. Interactions with antihypertensive agents, vasodilators, anticoagulants and inhibitors of platelet aggregation have also occurred. This has led the German agency to modify the approved product information of alprostadil preparations to warn against these adverse effects.**

Product Name **Amaranth**

C.A.S. number **915-67-3**

Scientific and common names, and synonyms

BORDEAUX-S

COLOUR INDEX NO.16185

CI FOOD RED 9

CI ACID RED 27

E123

FD&C RED NO.2

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1976**	The provisional approval for use of amaranth as a colour additive has been withdrawn since no study is available to resolve the uncertainty over its safety.
EGY	**1981**	Having regard to the potential carcinogenicity of amaranth, no new preparations containing this substance will henceforth be considered for registration and manufacturers are to replace amaranth with alternative substances within a period of three years. (Reference: (EGYDC) Decision of the Egyptian Technical Committee for Drug control, , , 1981)
KWT	**Apr 1984**	Amaranth is no longer approved for use in pharmaceutical preparations and food products. (Reference: (KTMD) Ministerial Decree, 156/84, , 1984)
OMN	**1 Apr 1986**	Import of pharmaceutical products containing the colouring agent amaranth is prohibited.
LKA		The Drug Evaluation Sub-Committee (Ministry of Health and Highways and Social Affairs) decided not to accept new applications for registration of pharmaceutical products containing the colouring agent, amaranth, because of its potential carcinogenicity. (Reference: (LKADES) Drug Evaluation Sub-Committee, , ,) **WHO Comment : Approval of amaranth as a permitted colouring agent in foods and pharmaceutical products was withdrawn by the United States FDA in 1976, on the basis of positive findings in carcinogenicity tests which were later disputed on technical grounds and which have not been confirmed in subsequent tests. It has since been withdrawn by some other national regulatory authorities because of uncertainty regarding its safety, but elsewhere it remains widely used.**

Product Name **Amfepramone**

C.A.S. number **90-84-6**

Scientific and common names, and synonyms

DIETHYLPROPION

1-PROPANONE, 2-(DIETHYLAMINO)-1-PHENYL-,

2-(DIETHYLAMINO)PROPIOPHENONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**1975**	Amfepramone is prohibited for import, export, production, sale and distribution for reasons of harmful health effects; the lack of evidence of value in the long-term management of obesity; and the risk of dependency.
SWE	**Jan 1981**	Amfepramone containing appetite suppressants have been withdrawn from the market. There is a lack of evidence of their value in long-term management of obesity, they have the potential for abuse and despite warnings they are frequently used over unacceptably prolonged periods.
OMN	**11 Jan 1987**	Import and marketing of products containing amfepramone were prohibited. (Reference: (OMNCR) Circular, 2/87, , Jan 1987)
ARE		Pharmaceutical preparations containing amfepramone are banned.
NOR		As a centrally acting appetite-reducing preparation, amfepramone is considered harmful and is not approved in Norway.
VEN		Amfepramone is not approved for use and/or sale.
		WHO Comment : Amfepramone, a phenethylamine derivative introduced in 1957, is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. It remains available in many other countries with highly evolved drug regulatory authorities as an aid to weight reduction. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Amfepramone hydrochloride**

C.A.S. number **134-80-5**

Scientific and common names, and synonyms

DETHYLPROPION HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Apr 2000**	The Medicines Control Agency has banned the anorectic agent, amfepramone hydrochloride on the basis of a European Commission decision stating that risks outweigh the benefits. (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)

Product Name **Amfetamine**

C.A.S. number **300-62-9**

Scientific and common names, and synonyms

AMPHETAMINE

BENZENEETHANAMINE, ALPHA-METHYL-, (+/-)

(+/-)-ALPHA-METHYLPHENETHYLAMINE

Legislative or regulative action

Legislative or regulation action

Product Name **Amfetamine**

C.A.S. number **300-62-9**

Country	Effective Date	Description of action taken Grounds for decision
USA	**1973**	Anorectic drugs containing amfetamine were withdrawn from the market by the Food and Drug Administration due to evidence of abuse and a high risk of dependence.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing amfetamine are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
OMN	**10 May 1982**	Import and marketing of products containing amfetamine were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
MYS	**Jul 1987**	All products containing amfetamine or derivatives indicated as appetite suppressants have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.10, , Apr 1987)
NGA	**1988**	All products containing amfetamine have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988)
SAU		Centrally-acting appetite suppressants are severely restricted since they have been found to be ineffective in the management of obesity and they are subject to misuse. **WHO Comment : Amfetamine and its derivatives are potent central stimulants. Use of amfetamines has widely been discouraged due to abuse of their euphoric effect and their limited field of usefulness. Amfetamines have a place in the treatment of narcolepsy and in hyperkinetic syndrome in children. However, they are no longer recommended for use in obesity or depressive illness. Amfetamine is controlled under Schedule II of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Amineptine**

C.A.S. number **57574-09-1**

Scientific and common names, and synonyms

7-[(10,11-DIHYDRO-5H-DIBENZO{A,D}CYCLOHEPTEN-5-YL)AMINO]HEPATANOIC ACID HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jan 1999**	The Medicines Agency has announced that the marketing authorization for the antidepressant, amineptine (SurvectorR: Servier) has been suspended and withdrawn in France. These actions have been taken after an evaluation of amineptine revealed a potential for abuse and risk of dependence. (Reference: (FRAAMI) Infofax - Pharmacovigilance, , , 22 Jan 1999)
THA	**Jan 1999**	The Ministry of Health has withdrawn preparations of amineptine following action taken in France. (Reference: (THAFDA) Communication to WHO, , , 28 Jan 1999)
ARE	**12 Jan 1999**	The Ministry of Health has banned the sale of amineptine on account of a potential for abuse and risk of dependence. (Reference: (UAECW) Communication to WHO, , , 10 July 2000)
BDS	**Jun 1999**	The Medical Health Services Headquarters in the Ministry of Health has withdrawn all tablets of amineptine (Survector) from the market with effect from 30 June 1999. (Reference: (BDSOL) Official letter to Regulatory Agencies, , , Feb 1999)
MAR	**Jun 1999**	The National Advisory Commission for Pharmacovigilance has decided to suspend the marketing authorization for amineptine. This action is based on international data

Product Name **Amineptine**

C.A.S. number **57574-09-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		concerning the potential abuse and risk of dependence associated with the intake of this product. (Reference: (MARDMP) Letter to WHO, , , 24 Aug 1999)
VTN	**Aug 1999**	The Drug Administration of Viet Nam in the Ministry of Health has withdrawn approval for the antidepressant, amineptine (Survector). This follows the decision taken by France to suspend amineptine on the basis of abuse and dependency potential. (Reference: (VTNMHD) Directive, 41(1999), QD-QLD, 05 Aug 1999)
OMN	**Apr 2000**	The Directorate General of Pharmaceutical Affairs & Drug Control has rescheduled amineptine as a non-psychotropic restricted controlled item because of international data concerning its potential abuse and risk of dependence. (Reference: (OMNCR) Circular, No. 25/2000, , 25 Apr 2000)

Product Name **Aminoglutethimide**

C.A.S. number **125-84-8**

Scientific and common names, and synonyms

2,6-PIPERIDINEDIONE, 3-(4-AMINOPHENYL)-3-ETHYL-

2-(4-AMINOPHENYL)-2-ETHYLGLUTARIMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1966**	Withdrawn from the market following demonstration of serious toxic effects to thyroids, ovaries, adrenals and uteri of female rats, as well as atrophy and mottling of the adrenals of some male rats. Clinical experience showed that in some children it caused sexual precocity, masculinization of young females and other untoward effects including goitre with thyroid hypofunction.
SAU		Withdrawn from the market due to reported serious side effects. **WHO Comment : Aminoglutethimide, a weak anticonvulsant, was introduced in 1960 for use in the treatment of epilepsy. However, its adrenocortical suppressant activity gave rise to serious adverse effects. The FDA decision in 1966 was taken in respect of a preparation indicated in epilepsy. In 1980 preparations containing aminoglutethimide were reintroduced in the USA exclusively for the treatment of Cushing's disease. In 1986 they were also registered in Saudi Arabia for use in Cushing's syndrome and for the treatment of breast cancer. In some other countries these preparations are additionally approved for carcinoma of the prostate.**

Product Name **Aminophenazone**

C.A.S. number **58-15-1**

Scientific and common names, and synonyms

ANTIPYRINE

AMINOPYRINE

AMIDOPYRINE-PYRAMIDON

AMIDOPYRINE

AMIDAZOFEN

DIMETHYLAMINOPHENAZONE

DIMETHYLAMINOANTIPYRINE

Legislative or regulation action

Product Name **Aminophenazone**

C.A.S. number **58-15-1**

Scientific and common names, and synonyms

4-DIMETHYLAMINO-2,3-DIMETHYL-1-PHENYL-3-PYRAZOLIN-5-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**1965**	Importation has been prohibited because of the potential hazard of bone marrow depression and fatal agranulocytosis. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, No. 90, ,)
FIN	**1976**	This ingredient was removed from non-prescription drugs owing to the potential hazard of bone marrow depression and agranulocytosis.
CHE	**1977**	Because of the potential to produce carcinogenic nitrosamines, this substance has been withdrawn from all analgesic/antipyretic preparations. Two major international manufacturers of such preparations voluntarily decided to remove this substance from their products.
DEU	**1977**	Because of the potential to produce carcinogenic nitrosamines, this substance has been withdrawn from all analgesic/antipyretic preparations. Two major international manufacturers of such preparations voluntarily decided to remove this substance from their products.
USA	**Nov 1977**	The regulation providing for marketing of aminophenazone was revoked. However this drug is not known to have been marketed in the United States. (Reference: (FEREAC) Federal Register, 42, 53954, Oct 1977)
JPN	**Dec 1977**	Because of the potential to produce carcinogenic nitrosamines, this substance has been withdrawn from all oral preparations and subsequently from all other preparations.
ITA	**1978**	Products for oral use were withdrawn from the market due to the risk of formation of carcinogenic nitrosocompounds. Injectable products require warnings about the risk of hypersensitivity reactions.
KOR	**1978**	In view of its propensity to form a potentially carcinogenic n-nitroso compound, this product has been withdrawn from use.
AUT	**Mar 1978**	In view of its propensity to form a potentially carcinogenic n-nitroso compound, pharmaceutical products containing aminophenazone and intended for oral use have been withdrawn.
THA	**Nov 1978**	Registration permit has been revoked for pharmaceutical preparations containing this ingredient.
IRL	**1979**	Products containing aminophenazone have been withdrawn.
DNK	**Apr 1979**	At the recommendation of the Registration Board in Denmark, preparations containing aminophenazone and noramidopyrine for systemic use were withdrawn. This decision was based on the potential danger of bone-marrow depression and fatal agranulocytosis, suspected carcinogenic hazards and the availability of alternative products. (Reference: (UGLAAD) Ugeskrift for Laeger, 141, 873, Mar 1979)
KWT	**Dec 1979**	Banned for use and/or sale because of its dangerous side effects, mainly agranulocytosis. (Reference: (KTMD) Ministerial Decree, 556, , 1978)
YEM	**Jan 1980**	The Supreme Board of Drugs has called for the withdrawal of all preparations containing aminophenazone.
GRC	**Oct 1980**	The Ministry of Health and Welfare has withdrawn this product from domestic use. (Reference: (GRAGA) Ministry of Health Decision, 12946, , Dec 1980)
ARE	**9 Jun 1981**	Pharmaceutical preparations containing aminophenazone are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
ROM	**1982**	The Minister of Health has recommended the gradual reduction in the use of this product until it has been phased out of use completely.

Product Name **Aminophenazone**

C.A.S. number **58-15-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SDN	1982	The Ministry of Health no longer allows registration of preparations containing aminophenazone.
FRA	25 Jan 1982	The Committee for Registration of Medicines has recommended that all preparations containing aminophenazone be withdrawn from the market by 1 January 1982.
TUR	Feb 1982	After review of published information about this product, the Ministry of Health has decided on its withdrawal and recommends changing the composition of all products containing aminophenazone for systemic use, due to the potential danger of bone marrow depression and fatal agranulocytosis and the availability of alternative products. Export of this product is prohibited.
MUS	9 Mar 1982	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
IND	1983	Prohibited for manufacture, sale and import due to questionable therapeutic value; evidence of adverse effects on bone marrow as well as suspected carcinogenic hazards; and the availability of safer analgesic drugs. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
NPL	1983	All preparations containing aminophenazone have been banned from use.
PHL	Oct 1983	Preparations containing aminophenazone are no longer allowed for use/sale due to serious side effects such as bone marrow depression and agranulocytosis.
RWA	1 Oct 1983	Preparations containing aminophenazone have been banned following established evidence of the adverse effects of these preparations.
CHL	1984	Products containing aminophenazone have been withdrawn from the market in view of its carcinogenic potential.
ETH	1984	Withdrawn due to the potential to produce carcinogenic nitrosamines.
HKG	1 Jan 1984	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing aminophenazone.
BRA	23 May 1986	Registration of pharmaceutical products containing aminophenazone has been withdrawn and further production prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, 9, , May 1986)
MYS	Nov 1986	All products containing aminophenazone have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.4, , Nov 1986)
OMN	Mar 1987	Import and marketing of products containing aminophenasone were prohibited. (Reference: (OMNCR) Circular, 11/87, , Mar 1987)
BEL	1 Jan 1988	Preparations containing aminophenazone have been placed in List IV of the Arr^t, du R,gent of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and cross-bones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
GHA	01 Sep 1989	Products containing aminophenazone or its derivatives have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
BHR		Preparations containing aminophenazone have been withdrawn.
GBR		Products containing aminophenazone have been withdrawn from the market due to the risk of agranulocytosis.

Product Name **Aminophenazone**

C.A.S. number **58-15-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		Aminophenazone and related salts have been banned for importation.
SWE		Products containing aminophenazone have been withdrawn from the market due to the risk of agranulocytosis.
VEN		Withdrawn from the market due to its carcinogenic potential.
		WHO Comment : Aminophenazone, a pyrazolone derivative, has been used as an antiinflammatory and analgesic agent for over a century. Its use has been associated with cases of bone marrow depression and agranulocytosis and more recently it has been claimed to have a carcinogenic potential. Products containing aminophenazone have been formally withdrawn in many countries and marketing has been voluntarily suspended in others. Elsewhere, however, proprietary preparations containing this ingredient may remain available. **(Reference: (WHODI) WHO Drug Information, 3, 9, 1977)**

Product Name **Aminophylline**

C.A.S. number **317-34-0**

Scientific and common names, and synonyms

AMINOPHYLLINUM

EUPHYLLINUM

ETHYLENEDIAMINE

METAPHYLLIN

THEOPHYLLINE

THEOPHYLLAMINUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**May 1992**	The Medicines Evaluation Board in The Netherlands has decided that tablet and suppository formulations ofpharmaceutical products containing aminophylline should no longer be marketed. Absorption rate from these formulations is slow and unpredictable, bioavailability of the suppository varies widely and the therapeutic range is narrow. (Reference: (GENMB) Geneesmiddelenbulletin, 25(5), 27, May 1992)
		WHO Comment : Aminophylline, the ethylenediamine salt of theophylline, was introduced many years ago as a treatment for asthma and is listed in the 8th WHO Model List of Essential Drugs. It has been recognized for some 10 years that aminophylline preparations are not interchangeable because bioavailability can vary considerably. The resulting variability in drug absorption can lead to adverse effects including irritation of the mucosa. Allergic reation can also be an adverse effect of aminophylline. Theophylline functions similarly but is considered less of an irritant.

Product Name **Aminorex**

C.A.S. number **2207-50-3**

Scientific and common names, and synonyms

AMINOXAPHEN

2-OXAZOLAMINE, 4,5-DIHYDRO-5-PHENYL-

2-AMINO-5-PHENYL-2-OXAZOLINE

Legislative or regulation action

Product Name **Aminorex**

C.A.S. number **2207-50-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1967**	The Ministry of Health withdrew preparations containing aminorex, cloforex and chlorphentermine as a precautionary measure pending scientific evidence of a relationship between their use and the development of pulmonary hypertension.
VEN		Banned for use and/or sale.
		WHO Comment : Aminorex, an anorexic agent, was introduced over twenty years ago for the treatment of obesity. Between 1967 and 1971 its use was associated with cases of pulmonary hypertension which led to its withdrawal in the Federal Republic of Germany. WHO has no information to suggest that this drug remains commercially available.

Product Name **Amiprilose**

C.A.S. number **56824-20-5**

Scientific and common names, and synonyms

?-D-GLUCOFURANOSE, 3-0-[3-(DIMETHYLAMINO)PROPYL]-1,2-0-(1-METHYLETHYLIDENE)-, HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**27 Jan 1994**	The Arthritis Advisory Committee of the FDA has recommended against approval of the anti-inflammatory agent, amiprilose, for the treatment of rheumatoid arthritis because adequate evidence of effectiveness and safety had not been provided. (Reference: (FDATP) Food and Drug Administration Talk Paper, T94-7, , 27 Jan 1994)

Product Name **Amitriptyline**

C.A.S. number **50-48-6**

Scientific and common names, and synonyms

3-(10,11-DIHYDRO-5H-DIBENZO[A,D]CYCLOHEPTEN-5-YLIDENE)PROPYLDIMETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1992**	The Medicines Control Authority has decided that the 50 mg tablet formulation of amitriptyline may be prescribed only in hospitals and specialized clinics because of the toxic potential of these products and the risk of overdosage and suicide with the high dose formula. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 9, 1992)
		WHO Comment : Amitriptyline, a tricyclic antidepressant was introduced in 1961 for the management of endogenous depression and is listed in the 8th WHO Model List of Essential Drugs. Much of the adverse effects are caused by its antimuscarinic actions. These include dry mouth, cardiac arrhythmias, central nervous system disturbances, blood disorders and risk of suicide. The risk of suicide and dangers related to overdosage led the Norwegian Medicines Control Authority to put the higher strength formulation under prescribing restriction in 1992. The risk of death following overdosage is apparently higher for products containing tricyclic compounds as compared with nontricyclic products.

Product Name **Amobarbital**

Legislative or regulation action

C.A.S. number **57-43-2**

Scientific and common names, and synonyms

5-ETHYL-5-ISOPENTYLBARBITURIC ACID

AMYLBARBITONE

2,4,6(1H,3H,5H)-PYRIMIDINETRIONE, 5-ETHYL-5-(3-METHYL-BUTYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1985**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing amobarbital.
NZL	**1990**	In agreement with the Department of Health, products containing amobarbital and amobarbital sodium have been withdrawn by the manufacturer. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 258, , 16 July 1990) **WHO Comment : Amobarbital is an intermediate-acting barbiturate which is controlled under Schedule III of the 1971 Convention on Psychotropic Substances. See WHO comment for barbiturates.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Amodiaquine**

C.A.S. number **86-42-0**

Scientific and common names, and synonyms

PHENOL, 4-((7-CHLORO-4-QUINOLINYL)AMINO)-2-((DIETHYLAMINO)METHYL)-

4-((7-CHLORO-4-QUINOLYL)AMINO)-ALPHA-(DIETHYLAMINO)-O-CRESOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Jul 1986**	Having regard to cases of agranulocytosis associated with prophylactic use of amodiaquine, the major manufacturer has removed malaria prophylaxis from the data sheet worldwide. **WHO Comment : Amodiaquine, an antimalarial agent related to chloroquine, was introduced over 40 years ago for the treatment and prophylaxis of malaria. The drug was voluntarily withdrawn in the United Kingdom in 1975 for commercial reasons but was subsequently reintroduced in 1985 to meet the medical demand for an antimalarial drug to deal with the rapid spread of chloroquine-resistant falciparum malaria in Asia and Africa. By 1986 a significant number of cases of agranulocytosis associated with prophylactic use, some of which were fatal, had been reported there and it has been estimated that the frequency of this risk is of the order of 1:2,000. Although most cases occurred when amodiaquine had been used in combination with other antimalarials, the major manufacturer decided to withdraw the prophylactic indication worldwide following discussions with experts. Preparations remain available for the treatment of acute attacks of malaria which involves only a short period of exposure to the drug.** **(Reference: (WHODI) WHO Drug Information, 1, 5, 1987)**

Product Name **Amyl nitrite**

Scientific and common names, and synonyms

MIXTURE OF NITROUS ACID, 2-METHYLBUTYL ESTER AND NITROUS ACID, 3-METHYLBUTYL ESTER

Legislative or regulative action

Legislative or regulation action

Product Name **Amyl nitrite**

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Aug 1996**	The Medicines Control Agency has proposed that amyl nitrite should become a prescription-only medicine in view of its misuse as a stimulant. (Reference: (GBRPHJ) The Pharmaceutical Journal, Vol.257, p.785, 10 Aug 1996)

Product Name **Anabolic steroids**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Oct 1989**	Products containing anabolic steroids indicated for increasing appetite in children have been withdrawn, due to the risks of undesirable androgenic effects. All products containing anabolic steroids have been subjected to prescription control. (Reference: (THAMH) Ministry of Public Health, , , 15 Apr 1991)
CAN	**26 Jun 1992**	Products containing androgenic-anabolic steroids are claffified in Schedule G of the Food and Drugs Act and the Schedule to the Food and Drugs Regulations with regard to the high prevalence of their abuse by athletes and high school children. They are now subject to import/export permits, licensing and prescription control. (Reference: (CANHW) Canada Health and Welfare, , , 13 Oct 1992) **WHO Comment : Anabolic steroids were formerly used to increase weight in patients suffering from emaciation or debilitating diseases but have not proved totally successful. They are also used in the treatment of certain aplastic anaemias, breast cancer and in the prevention of osteoporosis. They have been subject to much abuse in athletes and malnourished children to increase body weight. Misuse in prepubertal children has been associated with undesirable effects, including precocious sexual development in males and virilization in females, which have led the Thai agency to withdraw products containing anabolic steroids indicated for increasing appetite in children.**

Product Name **Anagestone acetate**

C.A.S. number **3137-73-3**

Scientific and common names, and synonyms

PREGN-4-EN-20-ONE, 17-(ACETYLOXY)-6-METHYL-, (6ALPHA)

17-HYDROXY-6ALPHA-METHYL-PREGN-4EN-20-ONE-ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1969**	Following reports of breast tumours in dogs receiving anagestone acetate in combination with mestranol, the manufacturer withdrew preparations containing these drugs.
AUT	**23 May 1969**	Following reports of breast tumours in dogs receiving anagestone acetate in combination with mestranol, the manufacturer withdrew preparations containing these drugs.
KWT	**1 Apr 1970**	Importation and marketing of preparations containing anagestone acetate is prohibited. **WHO Comment : Anagestone acetate, a synthetic progestogen, was introduced in 1968 as a component in oral contraceptive preparations. In 1969, it was shown to be associated with an increased risk of mammary tumours in dogs which led the United States Food and Drug Administration to order the termination of its use in all clinical trials. Subsequently the manufacturer withdrew preparations containing anagestone acetate, ultimately on a worldwide basis.**

Product Name **Anagestone acetate**

C.A.S. number **3137-73-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Androgens**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1989**	Products containing androgens may no longer be indicated for suppression of lactation and prevention of breast engorgement in mothers who elect not to breastfeed. (Reference: (FDATP) Food and Drug Administration Talk Paper, T89-56, , 27 Sep 1989) **WHO Comment : Androgens have been used for the prevention of postpartum breast pain and engorgement. However, because of the risk of rebound effect and since only 10% of women benefit therapeutically from such intervention, the United States Food and Drug Administration has requested manufacturers to stop labeling preparations containing androgens for this indication. The World Health Organization is not aware of similar action having been taken elsewhere.**

Product Name **Antihistamine (topical)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	**Nov 1986**	Antihistamines intended for local use were not approved. (Reference: (MYSDC) Malaysian Drug Control Authority, 1985-1987, ,)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale cream formulations of antihistamines. It considers that antihistamine cream is of no value in hypersensitive skin rashes and that the preparations can themselves induce such rashes. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992) **WHO Comment : Antihistamines have been used for many years as a treatment for hypersensitive reactions. The topical application of antihistamines is, however, associated with an unacceptable incidence of skin irritation and hypersensitivity reactions.**

Product Name **Aphrodisiac drugs**

Scientific and common names, and synonyms

CANTHARIDES

ESTROGENS

METHYLTESTOSTERONE

NUX VOMICA

STRYCHNINE

TESTOSTERONE

YOHIMBINE

Legislative or regulation action

Product Name **Aphrodisiac drugs**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**8 Jan 1990**	All nonprescription products claiming to have aphrodisiac effects have been banned, on the grounds that they are unsafe and of doubtful effectiveness. Among the ingredients contained in these products are: cantharides, estrogens, methyltestosterone, nux vomica, strychnine, testosterone and yohimbine. (Reference: (FEREAC) Federal Register, 54(129), 28780, 1989) (Reference: (FDATP) Food and Drug Administration Talk Paper, T89-42, , 07 July 1989)

Product Name **Aprobarbital**

C.A.S. number **77-02-1**

Scientific and common names, and synonyms

5-ALLYL-5-ISOPROPYLBARBITURIC ACID

APROBARBITONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1985**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing aprobarbital. **WHO Comment : Aprobarbital is an intermediate-acting barbiturate. See WHO comment for barbiturates.**

Product Name **Aristolochia**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Jul 1999**	The Medicines Control Agency has banned the import, sale and supply of medicinal products containing the Chinese herbal medicine Aristolochia. This was on account of end-stage renal failure associated with the use of this product. (Reference: (GBRSIN) Statutory Instrument, The Medicines (Aristolochia) (Temporary Prohibition) Order 1999, , , 28 Oct 1999)

Product Name **Aristolochic acid**

C.A.S. number **313-67-7**

Scientific and common names, and synonyms

8-METHOXY-6-NITROPHENANTHRO(3,4-D)-1,3-DIOXOLE-5-CARBOXYLIC ACID

ARISTOLOCHINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1981**	The Federal Health Office withdrew all preparations containing aristolochic acid from the national market following demonstration of a carcinogenic potential in a three-month toxicity study in rats. The Federal Health Office considers that aristolochic acid is a

Product Name **Aristolochic acid**

C.A.S. number **313-67-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		particularly potent carcinogen having regard to the unusually short period of exposure required for induction; the variety of tissues involved; the marked dose-effect relationship and the rapid progression of malignant changes after suspension of dosage. The regulatory decision relates not only to branded drugs containing aristolochic acid but to the sale of herbal preparations or extracts prepared from plants of the aristolochiaceae family. Only homeopathic preparations prepared to a dilution of at least 1:100,000,000,000 were exempted.
AUT	**Aug 1981**	The Federal Ministry of Health and Environmental Protection has instructed pharmacists that, having regard to their apparent risks, preparations containing aristolochic acid have no justifiable use.
EGY	**1982**	Products containing aristolochic acid were withdrawn following demonstration of carcinogenicity in rats.
USA	**Apr 2001**	The FDA has cautioned consumers against consuming any dietary supplement or traditional medicine containing aristolochic acid. (Reference: (USAMDR) Media Release, , , 11 Apr 2001)
FRA	**Jul 2001**	All homeopathic preparations containing Aristolochia brasiliensis and homeopathic preparations containing products belonging to Aristolochiaceae or related plant families have been withdrawn due to risks of nephrotoxicity and carcinogenicity associated with aristolochic acid. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)
OMN	**Jul 2001**	Prohibition of import and marketing in view of kidney toxicity and urinary tract cancer associated with aristolochic acid. (Reference: (OMNCR) Circular, 25/2001, , 02 Oct 2001)
CAN	**Oct 2001**	Health Canada has issued a Customs Alert to prevent the sale and import of products containing aristolochic acid. Manufacturers, retailers and importers have been requested to withdraw from the market all existing products containing aristolochia and aristolochic acid. (Reference: (CANWHC) Warnings/Advisories, 20011005, 20020516, 24 Aug 2001)
AUS	**Dec 2001**	A traditional product named Longdan Qiegan Wan (Wetness Heat Pill) has been removed from the Australian Register of Therapeutic Goods since it contains aristolochic known to cause kidney damage and urinary tract cancer. (Reference: (AUSMDR) Media Release, , , 07 Dec 2001)
VEN		Not approved for use and/or sale.
		WHO Comment : Extracts of aristolochiaceae have traditionally been used as a bitter for which a broad range of therapeutic effects has been claimed. Aristolochic acid is claimed to promote phagocytosis and to have immunostimulant activity. However, in 1981, a three-month toxicity study in rats revealed the carcinogenic potential of aristolochic acid and preparations containing this substance have since been withdrawn in several countries.

Product Name **Arsenic-based compounds**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	**Oct 1969**	All tonics, parenteral preparations, oral asthma remedies and vaginal tablets containing arsenic have been withdrawn in the light of the carcinogenic potential of arsenic-

Product Name **Arsenic-based compounds**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		containing compounds.
PHL	**Mar 1976**	Banned in any form for use in pharmaceuticals.
ESP	**1 Oct 1983**	Preparations containing inorganic arsenicals have been withdrawn. (Reference: (ESPMC) Programa Selectivo de Revisión de Medicamentos, (1), , Sep 1983)
ITA		These substances in tonics and reconstituents have been removed from the market owing to an unfavourable risk/benefit ratio. **WHO Comment : Arsenic-based compounds, which were used over 2000 years ago as both therapeutic agents and poisons, became the mainstay of chemotherapy earlier this century. Although such compounds have been largely superseded by safer and more effective alternatives, they remain important in the treatment of certain tropical diseases.**

Product Name **Astemizole**

C.A.S. number **68844-77-9**

Scientific and common names, and synonyms

1H-BENZIMIDAZOL-2-AMINE, 1[(4-FLUOROPHENYL)METHYL]-N-[1-[2-(4-METHOXYPHENYL)ETHYL]-4-PIPERIDINYL]-

1[(4-FLUOROPHENYL)METHYL]-N-[1-[2-(4-METHOXYPHENYL)ETHYL]- 4-PIPERIDINYL]-1H-BENZIMIDAZOL-2-AMINE

1-(P-FLUOROBENZYL)-2-[[1-(P-METHOXYPHENETHYL)-4-PIPERIDYL]AMINO]BENZIMIDAZOLE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1987**	The medicines control authority has refused registration of astemizole because its prolonged half-life renders appropriate dosage difficult and the possibility of hepatic toxicity and adverse immunologically-mediated effects have not been adequately excluded. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 4, 4, 1987)
NZL	**Oct 1996**	Astemizole has been reclassified to Restricted Medicine (an OTC classification, but may only be sold personally by a pharmacist). (Reference: (NZLPU) Prescriber Update, No.13, , Oct 1996)
ARG	**1997**	Product information and labelling of pharmaceutical products containing the histamine H-antagonists astemizole and terfenadine have to include a warning1 concerning prolongation of the QT interval and ventricular arrhythmias. (Reference: (ARGBO) Boletín oficial, No.28.616, 1535/97,)
GBR	**1998**	Astemizole has been reclassified to Prescription only Medicine as a result of new data on interactions from postmarketing surveillance studies. These data highlight an increased risk of QT prolongation with concomitant administration of oral or parenteral formulations of azole antifungals, macrolide antibiotics except azithromycin, selective serotonin reuptake inhibitors, HIV protease inhibitors and mibefradil (now withdrawn worldwide). In addition, astemizole is contraindicated for use in patients with hepatic dysfunction. (Reference: (GBRPHJ) The Pharmaceutical Journal, 261, p.9, 04 July 1998)
PHL	**1998**	The Department of Health Bureau of Food and Drugs have noted the voluntary withdrawal by the sponsoring company of the antihistamine, astemizole due to its association with severe cardiac adverse events when used inappropriately with contraindicated drugs. (Reference: (PHLCTW) Communication to WHO, , , 15 Aug 2000)

Product Name **Astemizole**

C.A.S. number **68844-77-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1999**	Janssen, the manufacturer of the histamine H1-receptor antagonist, astemizole, (HismanalR) has announced that it is voluntarily withdrawing the 10-mg formulation from the market. Since the drug's approval in 1988, new adverse reaction data has necessitated a series of labelling changes and warnings. In the light of the choices of other prescription antihistamines now available and the overall risk benefit profile of this drug, the Food and Drug Administration supports the decision of the company to withdraw the product. (Reference: (FDATP) Food and Drug Administration Talk Paper, T99-29, , 21 June 1999)
ZAF	**1999**	The South African Medicines Control Council has withdrawn products containing astemizole because of the potential for serious drug interactions. (Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,)
ARE	**Jun 1999**	The Ministry of Health has banned the sale of astemizole with effect from 23 June 1999 on account of increased risk of QT prolongation with concomitant administration of oral or parenteral formulations of azole antifungals, macrolide antibiotics except azithromycin, selective serotonin reuptake inhibitors and HIV protease inhibitors. (Reference: (UAECW) Communication to WHO, , , 10 July 2000)
MUS	**Jun 1999**	Astemizole was withdrawn from the market following reports of adverse drug reactions published by the FDA and the decision of Janssen Pharmaceutica to remove the drug in the USA. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)
BDS	**Jul 1999**	The manufacturer withdrew astemizole worldwide because of serious adverse cardiovascular reactions. (Reference: (BDSOL) Official letter to Regulatory Agencies, , , 01 July 1999)
URT	**2 Jul 1999**	The Pharmacy Board of the Ministry of Health, in the United Republic of Tanzania has withdrawn astemizole from the market. (Reference: (URTMH) Communication to WHO, , , 20 Nov 2000)
ARM	**Jul 2000**	Astemizole has been voluntarily withdrawn on the basis of prolongation of the QT-interval and ventricular arrhythmias. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
BRA	**Jun 2001**	Registration cancelled due to several adverse reactions. (Reference: (BRARES) Resolucao n., 526/ANVISA, , 06 Aug 2001)
ESP	**08 Apr 2003**	The Spanish Medicines Agency has withdrawn the marketing authorization for 10 medicinal products containing astemizole due to the potential of these products to produce life-threatening ventricular ar-rhythmias. (Reference: (ESPSMA) Communication to WHO, , , 08 Apr 2003)
ARG	**19 Aug 2003**	The Food, Drug and Medical Devices agency in Argentina, ANMAT, has withdrawn all medicinal products containing astemizole since these products have the potential to cause life-threatening ventricular arrhythmias. (Reference: (ARGFDM) Communication from ANMAT, , , 19 Aug 2003)
SGP		The National Pharmaceutical Administration in the Ministry of Health has banned astemizole since it has been associated with adverse drug reactions including irregular heart rhythms and severe allergic reactions if taken at higher than recommended doses or in conjunction with some other drugs including antihypertensives and anti-asthmatics. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)
		WHO Comment : The first clinically interesting histamine H-antagonists were1 introduced in the late forties and early fifties. Several histamine H-antagonists1 have a similar cardiac effect to that seen with astemizole and terfenadine. Serious cardiovascular adverse reactions have been reported when used concomitantly with imidazole antifungals and macrolide antibiotics. See also under terfenadine.

Product Name **Astemizole**

C.A.S. number **68844-77-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Azapropazone**

C.A.S. number **13539-59-8**

Scientific and common names, and synonyms

5-DIMETHYLAMINO-9-METHYL-2-PROPYL-1H-PYRAZOLO(1,2-A)(1,2,4)BENZOTRIAZINE-1, 3(2H)-DIONE

APAZONE

1H-PYRAZOLO(1,2-A)(1,2,4)BENZOTRIAZINE-1,3(2H)-DIONE, 5-(DIMETHYLAMINO) -9-METHYL-2-PROPYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1985**	Indications are restricted to exacerbations of inflammatory degenerative rheumatism, soft tissue rheumatism and pain, post-traumatic swelling or inflammation. Preparations are contraindicated in children under six years of age.
OMN	**Sep 1986**	The Ministry of Health has prohibited the import of preparations containing azapropazone except those intended for topical use.
BEL	**1 Jan 1988**	Preparations containing azapropazone have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and cross-bones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
AUT		Indications restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984) **WHO Comment : Azapropazone, which has anti-inflammatory, analgesic and antipyretic activity, was introduced in 1970 for the treatment of rheumatic disorders. Although sometimes classified as a pyrazolone derivative, the relationship with this group of compounds has been disputed and classification as a benzotriazine derivative might be preferable. Although, to date, it has not been associated with blood dyscrasias, some regulatory authorities have applied the same rigorous restrictions to its indications as they have applied to pyrazolone derivatives. The World Health Organization was informed that as of December 1987 azapropazone was available in some 27 countries.**

Product Name **Azaribine**

C.A.S. number **2169-64-6**

Scientific and common names, and synonyms

AS-TRIAZINE-3,5-(2H,4H)-DIONE, 2-(2',3',5'-TRIACETYL-BETA-D- RIBOFURANOSYL)-

TRIACETYL AZAURIDINE

1,2,4-TRIAZINE-3,5(2H,4H)-DIONE, 2-(2,3,5-TRI-O-ACETYL-BETA- RIBOFURANOSYL)-

2-BETA-D-RIBOFURANOSYL-AS-TRIAZINE-3, -5(2H,4H)-DIONE 2',3',5',- TRIACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Aug 1976**	This antineoplastic agent, which was indicated only for severe, recalcitrant, disabling arthritis, was withdrawn from the market following reports of several serious

Product Name **Azaribine**

C.A.S. number **2169-64-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		thromboembolic and thrombotic reactions. Several of these lesions occurred in relatively unusual arterial sites (including the radial, ulnar, femoral and popliteal arteries) and one death resulted from pulmonary embolism.
THA	**Feb 1977**	Products containing this ingredient have been banned.
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
SAU		Withdrawn from the market following reports of adverse effects.
VEN		Not approved for use and/or sale.
		WHO Comment : Azaribine, an antineoplastic agent, was introduced in 1975 for the treatment of severe, recalcitrant, disabling arthritis. Following reports of thromboembolic and thrombotic reactions, the drug was withdrawn in the USA in 1976. The causal relationship between azaribine and these events has been questioned and the drug remains available in the USA for investigational purposes.

Product Name **Barbital**

C.A.S. number **57-44-3**

Scientific and common names, and synonyms

5,5-DIETHYLBARBITURIC ACID

BARBITONE

DIETHYLMALONYLUREA

DIEMALUM

MALONAL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA		This substance for use as a sedative has been removed from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy.
		WHO Comment : Barbital is a long-acting barbiturate which is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. See WHO comment for barbiturates. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Beclobrate**

C.A.S. number **55937-99-0**

Scientific and common names, and synonyms

ETHYL(+)-2-[[ALPHA-(P-CHLOROPHENYL)-P-TOLYL]OXY]-2-METHYLBUTYRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Beclobrate**

C.A.S. number **55937-99-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**1990**	Having regard to two reports of fatal hepatitis, the marketing authorization of products containing beclobrate has been withdrawn. (Reference: (CHBCM) Bulletin Mensuel, 8, , 24 Sep 1990) **WHO Comment : Beclobrate, an antihyperlipidaemic agent, was introduced into medicine in 1985. Although a causal relationship between the use of the drug and hepatic toxicity has not been established, the Intercantonal Office for the Control of Medicines has withdrawn marketing authorization since safer therapeutic alternatives are available. Beclobrate is not registered elsewhere.**

Product Name **Bencyclane**

C.A.S. number **2179-37-5**

Scientific and common names, and synonyms

3-[(1/BENZYLCYCLOHEPTYL)OXY]-N,N-DIMETHYLPROPYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Feb 1991**	In collaboration with the Federal Health Office, the manufacturer amended the approved product information of preparations containing bencyclane to contraindicate their use in epileptic patients; in patients who had sustained head injury within the previous 12 months; and in patients receiving treatment with pentoxifylline, naftidrofuryl, flunarizine or buflomedil. (Reference: (DEUFHO) Communication from Federal Health Office, , , 29 June 1992) **WHO Comment : Bencyclane, a vasodilator, was introduced in 1970 for the treatment of peripheral and cerebral vascular disorders. In 1991, its use was contraindicated by the German authorities in patients at risk of epilepsy following reports of convulsions in patients under treatment. Bencyclane is widely registered and the World Health Organization is not aware of restrictive action having been taken elsewhere.**

Product Name **Benorilate**

C.A.S. number **5003-48-5**

Scientific and common names, and synonyms

BENORYLATE

4-ACETAMIDOPHENYL SALICYLATE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Dec 1986**	The Committee on Safety of Medicines has advised that preparations containing benorilate should not be administered to children under 12 years of age except on medical advice. (Reference: (GBMIL) Medicines Act Information Letter, No.48, , Oct 1986) **WHO Comment : Benorilate is the acetylsalicylic ester of paracetamol. See WHO comment for acetylsalicylic acid.**

Product Name **Benoxaprofen**

Legislative or regulation action

C.A.S. number **51234-28-7**

Scientific and common names, and synonyms

5-BENZOXAZOLEACETIC ACID, 2-(4-CHLOROPHENYL)-ALPHA-METHYL, (+/-)

(+/-)-2-(P-CHLOROPHENYL)-ALPHA-METHYL-5-BENZOXAZOLEACETIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Aug 1982**	Following action in Denmark and reports from other countries, in particular of hepatic reactions in elderly patients from the United Kingdom, the drug was withdrawn worldwide by the manufacturer. Benoxaprofen had previously been withdrawn in several countries because of serious toxic effects on various organ systems, particularly the gastro-intestinal tract, the liver and bone marrow, in addition to previously known effects on the skin, eyes and nails. Subsequent to this decision, limited clinical trials were abandoned following demonstration of positive findings in carcinogenicity studies in mice. **WHO Comment : Benoxaprofen, a nonsteroidal antiinflammatory agent, was introduced in 1980 for the treatment of rheumatic disorders. Following reports of serious adverse effects, some of which were fatal, it was withdrawn in several countries prior to worldwide withdrawal by the manufacturer in 1982.**

Product Name **Benzarone**

C.A.S. number **1477-19-6**

Scientific and common names, and synonyms

2-ETHYLBENZOFURAN-3-YL 4-HYDROXYPHENYL KETONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**19 Oct 1992**	The Federal Health Office suspended the marketing authorization for pharmaceutical products containing benzarone. (Reference: (DEUPD) BGA Pressedienst, , , 20 Oct 1992) (Reference: (DEUFHO) Communication from Federal Health Office, , , 19 Oct 1992) **WHO Comment : Benzarone is given by mouth and applied topically for treatment of various vascular peripheral disorders.The decision to suspend the marketing authorization results from several reports of toxic hepatitis, including one fatal case from within Germany. The product remains registered in Italy and France.**

Product Name **Benzbromarone**

C.A.S. number **2004-0-0001**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PRT	**Apr 2003**	Suspended due to unfavourable benefit-risk evaluation. (Reference: (PRTRAC) Communication to WHO, , , Apr 2003)
FRA	**22 Apr 2003**	The hyperuricaemic product benzbromarone (Desuric) has been withdrawn following reports of serious liver damage associated with the product's use. (Reference: (FRAAMP) Press Release, , , 22 Apr 2003)

Product Name **Benzoylperoxide**

C.A.S. number **94-36-0**

Scientific and common names, and synonyms

BENZOYL PEROXIDE

Legislative or regulation action

Product Name **Benzoylperoxide**

C.A.S. number **94-36-0**

Scientific and common names, and synonyms

BENZOIC ACID, PEROXIDE

DIBENZOYL PEROXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Aug 1995**	The FDA has proposed additional labelling (warning and directions) for topically applied acne treatment drug products containing benzoyl peroxide. It advises consumers to avoid unnecessary exposure to the sun and to apply a sunscreen when using benzoyl peroxide to treat acne. (Reference: (FEREAC) Federal Register, 60(33) , p. 9545, 1995) **WHO Comment : Benzoyl peroxide slowly releases oxygen and hence is bactericidal. It is also keratolytic, antiseborrheic and irritant. It is used in the treatment of acne. Benzoyl peroxide is listed in the WHO Model List of Essential Drugs.**

Bibliographical references

IARC MONOGRAPH, 36, 267, 1985

Product Name **Benzyl alcohol**

C.A.S. number **100-51-6**

Scientific and common names, and synonyms

ALPHA-TOLUENOL

ALPHA-HYDROXYTOLUENE

BENZENEMETHANOL

BENZENECARBINOL

PHENYLMETHYL ALCOHOL

PHENYLMETHANOL

PHENYLCARBINOL

(HYDROXYMETHYL)BENZENE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISR	**1982**	The Ministry of Health has ordered that this preservative be excluded from solutions intended for parenteral infusions (in large volumes). In other parenteral preparations containing this preservative, the following warning should be added to the label: "Caution - not to be used in newly-born or premature infants".
OMN	**1982**	Prohibited for import or sale as a preservative in water and normal saline intended for injection.
USA	**1982**	The Food and Drug Administration has advised that benzyl alcohol should not be used as a preservative in drugs or fluids intended for parenteral administration in neonates, following reports of 16 deaths in neonates attributed to the use of 0.9% benzyl alcohol in water and saline used to clear intravascular catheters and to reconstitute drugs. Death followed signs of metabolic acidosis and convulsions. Both blood and urine contained high concentrations of benzoic and hippuric acid.
ITA	**1983**	The label for products containing this compound advises "Owing to benzyl alcohol presence, do not administer to children less than two years old".
GRC	**1984**	All preparations containing benzyl alcohol must carry the warning "Its use should be avoided in children under two years of age. Not to be used at all in neonates.".

Product Name **Benzyl alcohol**

C.A.S. number **100-51-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU		The contraindications have been extended to include "Not to be used in neonates, particularly in the premature". (Reference: (AFS) Arbetarskyddsstyrelsens Foerfattningssamling, 32, 3, 4332)
THA		The use of pharmaceutical preparations containing benzyl alcohol is severely restricted.
VEN		Subject to restricted use and/or sale. **WHO Comment : Benzyl alcohol has been used as an antimicrobial agent in pharmaceutical preparations for many years. Parenteral administration of preparations containing 0.9% benzyl alcohol resulted in the death of 16 neonates in the USA in the early 1980s. Many countries subsequently warned against using such preparations in neonates. This decision is not applicable to the use of benzyl alcohol as a preservative in other circumstances or to its use in topical preparations and no country has placed a total ban on the compound.**

Product Name **Benzylpenicillin sodium (topical preparations)**

C.A.S. number **69-57-8**

Scientific and common names, and synonyms

BENZYLPENICILLIN

CRYSTALLINE PENICILLIN G SODIUM

MONOSODIUM (2S,5R,6R)-3,3-DIMETHYL-7-OXO-6-(2-PHENYLACETAMIDO)-4-THIA- 1-AZABICYCLO(3.2.0)HEPTANE-2-CARBOXYLATE

PENICILLIN G

PENICILLIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Feb 1972**	Topical preparations have been withdrawn from the market and are prohibited for export by the Food and Drug Administration due to the lack of effectiveness of these products and an unfavourable benefit-to-risk ratio. (Reference: (FEREAC) Federal Register, 37, 438, Feb 1972)
ITA	**1976**	Preparations for rectal and topical use, including those intended for use in the mouth, have been withdrawn from the market owing to the risk of sensitization.
PHL	**1976**	Penicillin ointment and other penicillin-containing products for topical application have been banned for use/sale due to the risk of sensitization. (Reference: (PHADO) Administrative Order, 238, , 1976)
ETH	**1978**	Preparations for topical use have been withdrawn following reports of hypersensitivity.
BGD	**Jun 1982**	Use of all topical preparations was discontinued due to lack of effectiveness and risk of hypersensitivity reactions.
IND	**1983**	Skin and eye ointments have been prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
CHL		Pharmaceutical preparations intended for topical use containing penicillin and its derivatives were prohibited. (Reference: (CHLRS) Resolution of the Minister of Health, No. 10154, , Oct 1986)
CYP		All products containing penicillin intended for topical use were withdrawn following a review of published information on hypersensitivity in treated patients.

Product Name **Benzylpenicillin sodium (topical preparations)**

C.A.S. number **69-57-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP		Combination products containing penicillin for topical or rectal use will no longer be considered for registration since topically applied penicillin may evoke serious dermatitis and rectal absorption is insecure, irregular and inadequate.
THA		Ointment containing benzylpenicillin is not approved for use.
VEN		Not approved for use and/or sale.
		WHO Comment : Benzylpenicillin sodium, one of the first penicillin derivatives to be used in medicine, was introduced in the early 1940s. Topical preparations intended for use on the skin have been associated with allergic rashes and are in general no longer acceptable. However, topical preparations for specialized use, in particular in the eye and on open wounds, are available in many countries. Injectable preparations of benzylpenicillin are included in the WHO Model List of Essential Drugs.
		(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)

Bibliographical references

WHO FOOD ADD., 27, 105, 1991

Product Name **Berberine**

C.A.S. number **2086-83-1**

Scientific and common names, and synonyms

5,6-DIHYDRO-9,10-DIMETHOXY-BENZO(G)-1,3-BENZODIOXOLO(5,6-A) QUINOLIZINIUM

7,8,13,13A-TETRAHYDRO-9,10-DIMETHOXY-2,3-METHYLENEDIOXY-BERBINIUM

BERBERIN

BERBERICINE

UMBELLATIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP	**Oct 1978**	The Ministry of Health announced a prohibition on the importation and sale of preparations containing berberine following reports of jaundice, haemolytic anemia and kernicterus with brain damage in infants with glucose 6-phosphate dehydrogenase deficiency who were exposed either in utero or post-natally.
VEN		Not approved for use and/or sale.
		WHO Comment : Berberine, an alkaloid contained in many plants including Berberis species, remains available in many tropical countries. Both traditional herbal remedies and tablet formulations containing this substance have been used in the treatment of gastrointestinal disease, and injectable preparations have been claimed to be of value in the treatment of cutaneous leishmaniasis. The action taken in Singapore relates to reports of jaundice, haemolytic anaemia and kernicterus with brain damage in infants with G6PD deficiency who were exposed either in utero or post-natally. Preparations for topical application are also available in some countries. These have not been associated with reports of systemic toxicity.

Product Name **Beta ethoxylacetanilide**

C.A.S. number **539-08-2**

Legislative or regulation action

Product Name **Beta ethoxylacetanilide**

C.A.S. number **539-08-2**

Scientific and common names, and synonyms

LACTYLPHENETIDINE

LACTIC ACID-P-PHENETIDINE

N-(PARA-ETHOXYPHENYL) LACTAMIDE

N-(4-ETHOXYPHENYL)-2-HYDROXYPROPANAMIDE

P-LACTOPHENETIDINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Mar 1986**	Preparations containing beta-ethoxylacetanilide have been withdrawn and will no longer be considered for registration. **WHO Comment : Beta-ethoxylacetanilide is an analogue of phenacetin. See WHO comment for phenacetin.**

Product Name **Bicalutamide**

C.A.S. number **2004-0-0002**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CAN	**18 Aug 2003**	Withdrawn due to reports of accelerated deaths of patients with localized prostate cancer. (Reference: (CANWHC) Warnings/Advisories, , , 18 Aug 2003)
GBR	**28 Oct 2003**	Withdrawn due to reports of accelerated deaths of patients with localized prostate cancer. (Reference: (GBRCW) Communication, , , 28 Oct 2003)

Product Name **Bismuth salts**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
EGY	**1975**	Products containing bismuth subgallate were withdrawn due to a possible association with encephalopathy.
JPN	**Jun 1975**	Bismuth was banned in over-the-counter drugs due to psychoneurotic disorders found with use. In 1981 the indication for bismuth in preparations available only on prescription was restricted to diarrhoea.
GRC	**1976**	Bismuth subgallate was withdrawn in 1976 and bismuth subnitrate was withdrawn in 1980.
FRA	**Sep 1978**	All oral proprietary medicinal products containing insoluble bismuth salts were removed provisionally from the market for a period of one year and have subsequently remained suspended on grounds of apparent neuropsychiatric toxicity. Relevant entries have not, however, been deleted from the French Pharmacopoeia and pharmacists remain entitled to compound prescriptions on the order of a doctor.
AUT	**31 Dec 1980**	Pharmaceutical preparations containing salts or esters of bismuth were withdrawn following reports of encephalopathy associated with their use. Some eye ointments were exempted from this decision.
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, products with bismuth have been banned. This substance is cited as a cause of encephalopathy. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)

Product Name **Bismuth salts**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**1982**	After review of published information about this product, the Ministry of Health required manufacturers to remove insoluble bismuth salts from pharmaceutical products intended for oral use, with the exception of colloidal bismuth potassium citrate complex. Export of these products is prohibited.
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
SWE	**Sep 1983**	Preparations containing bismuth salts are now available on prescription only.
OMN	**Apr 1989**	Import and marketing of antidiarrhoeal preparations intended for paediatric use containing bismuth salts were prohibited. (Reference: (OMNCR) Circular, 9/89, , Apr 1989)
CUB		The use of bismuth subnitrate in paediatric preparations is prohibited on the recommendation of the National Paediatricians Group.
IND		Prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
ITA		Insoluble bismuth salts for oral administration carry a label with a warning concerning the advisability of avoiding prolonged use and high dosages. Products with other chemotherapeutic activity (other than anti-luetics) have been withdrawn from the market.
SAU		Bismuth subgallate remains available only for use in suppositories.
		WHO Comment : Bismuth salts were first introduced into medicine over two centuries ago and have since been used in over-the-counter preparations for the treatment of dyspepsia. In 1972 prolonged intake of high doses of bismuth subgallate was associated with cases of encephalopathy in Australia. Subsequently a similar association involving the subnitrate salt became evident in France. Preparations containing bismuth salts have since either been withdrawn or subjected to restrictive regulatory action in many countries. However, in some countries preparations containing bismuth subsalicylate, which retains a place in the management of dyspepsia, have been exempted from this restriction. Additionally, colloidal bismuth subcitrate is widely used in the treatment of gastritis and peptic ulcer disease. **(Reference: (WHODI) WHO Drug Information, 2, 8, 1977)**

Product Name **Bismuth subsalicylate**

C.A.S. number **14882-27-4**

Scientific and common names, and synonyms

(2-HYDROXY-BENZOATO-O)-OXOBISMUTH

2-HYDROXYBENZOIC ACID BISMUTH (3+) SALT1

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Apr 1994**	The Food and Drug Administration proposed to extend to products containing bismuth subsalicylate and all oral and rectal over-the-counter products that contain acetylsalicylic acid (aspirin) or other salicylates the following warning: "Children and teenagers who have or are recovering from chicken pox, flu symptoms or flu should not use this

Product Name **Bismuth subsalicylate**

C.A.S. number **14882-27-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		product. If nausea or fever occur, consult a doctor because these symptoms could be an early sign of Reye's syndrome, a rare but serious illness." (Reference: (FEREAC) Federal Register, 58(201) , p. 54228, 1993) **WHO Comment : See under Acetylsalicylic acid.**

Product Name **Bithionol**

C.A.S. number **97-18-7**

Scientific and common names, and synonyms

BIS(2-HYDROXY-3,5-DICHLOROPHENYL)SULFIDE

2,2'-THIOBIS(4,6-DICHLOROPHENOL)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Oct 1967**	Withdrawn from the market and prohibited for export by the Food and Drug Administration due to photosensitivity and cross-photosensitivity with other chemicals.
JPN	**Jul 1971**	Banned as an ingredient in cosmetics due to photosensitivity reactions. **WHO Comment : Bithionol, which has bactericidal and anthelminthic activity, was formerly available in soaps. By the late 1960s use of such preparations had been associated with a risk of photosensitivity reactions and cross-sensitivity with other halogenated disinfectants. This resulted in their withdrawal in the USA. Oral preparations of bithionol remain available for the treatment of paragonimiasis and fascioliasis.**

Product Name **Boric acid and borates**

C.A.S. number **10043-35-3**

Scientific and common names, and synonyms

BORIC ACID (H3BO3)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
KWT	**30 Mar 1970**	Any drug preparation intended for external use and containing boric acid should be labelled with the following warnings: "Only for external use." and "Do not apply to extensive areas of abraded or damaged skin.".
ISR	**1973**	Use of boric acid is prohibited except as a preservative in eyedrops and in dermal preparations in concentrations not higher than 1%.
KOR	**1973**	The Ministry of Health and Social Affairs has prohibited the manufacture of any baby powder which contains boric acid and sodium borate.
PHL	**1973**	By Administrative Order No. 195, all products for oral use and products for use in infants and children under three years of age have been prohibited. Products for external use must carry a special warning. These products have been reported to cause certain toxic reactions (disturbances in circulation, profound shock, convulsion) and fatalities with systemic absorption. (Reference: (PHADO) Administrative Order, 195, , 1973)
THA	**Oct 1973**	Boric acid and borax are prohibited for use in baby powders.

Product Name **Boric acid and borates**

C.A.S. number **10043-35-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1981**	The Drugs Advisory Board has withdrawn all oral preparations. Some preparations for topical administration remain available but must bear a warning that they should not be administered to infants. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, 12, , 1981)
DNK	**1983**	Subject to maximum concentration limits of 0.5% for peroral use, 1% for vaginal use and 3% for use in ear, eye or nose.
DEU	**Jul 1983**	The Federal Health Office has withdrawn the registration of the last remaining preparations containing either boric acid or its salts and esters. Exceptions to this order are made for ophthalmic preparations, mineral waters in which the boron content does not surpass that of ordinary drinking water, and some previously registered products containing phenylmercury dihydrogen borate.
JPN	**Jul 1985**	The Ministry of Health and Welfare banned boric acid and its salts except for eye application because of the toxicity of boric acid.
MYS	**31 Dec 1990**	Products containing boric acid or borax for use in the oral cavity, rectum, vagina or on the skin and wounds have been withdrawn, having regard to reports of fatalities among infants and young children following accidental ingestion of these products or as a result of absorption from abraided skin. (Reference: (MYSPR) Ministry of Health Press Release, 15, , 28 Feb 1990)
CRI		The Ministry of Public Health has prohibited the production, importation and sale of all products containing sodium borate (borax, sodium tetraborate) and boric acid in their composition, as well as their use as separate ingredients.
GBR		Following evidence that boric acid absorbed from topical preparations was responsible for the death of many healthy infants, the use of boric acid in topical preparations intended for use in infants has been prohibited. (Reference: (CFRUS) Code of Federal Regulations, 21-369.20, 204, 1985)
IND		Preparations for children under three years of age prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value.
ITA		Products for topical use are marketed with the following concentration limitations: not higher than 0.5% for stomatological use and not higher than 3% for any other use.
PER		Prohibited from use in cosmetic powders, due to their serious effects on the liver and kidney; and on the cardiovascular, digestive and nervous systems. Some fatalities have been connected to the use of these substances.
SAU		Use is restricted to ophthalmic preparations only.
USA		Following evidence that boric acid absorbed from topical preparations was responsible for the death of many healthy infants, the use of boric acid in topical preparations intended for use in infants has been prohibited. (Reference: (CFRUS) Code of Federal Regulations, 21-369.20, 204, 1985)
VEN		Subject to restricted use and/or sale.
		WHO Comment : Boric acid and some borates were formerly extensively used as disinfectants and antiinflammatory agents. By the late 1960s an association between the death of many infants and application of high concentrations of boric acid contained in topical preparations used in the treatment of napkin rash had been established. This led to the restriction of the use of boric acid in pharmaceutical preparations by many regulatory authorities. In some countries it is now permitted only as an ingredient in ophthalmological preparations.

Product Name **Bovine tissue derived medicines**

Legislative or regulation action

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1989**	The National Drugs Advisory Board has decided that products containing bovine-derived components will notbe approved for marketing unless adequate evidence is provided that there is no potential for infectivity. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, 1989, 28, Dec 1990)
CHE	**26 Mar 1991**	The Intercantonal Office for the Control of Medicines has prohibited as a part of the precautionary measures, the use of tissue from the high risk organs from cattle for the manufacture of medicines unless the tissues are derived from animals that are younger that six months, come from a country were no cases of bovine spongiform encephalopathy (BSE) have been reported and have not been fed animal material such meat, bone flour or fat. In addition, the manufacturing process should be capable of removing or reducing any potential for infection with BSE. Products containing only lactose of those that have the bovine material largely removed during manufacture procedure and those that cannot be withdrawn at short notice due to therapeutic importance are excluded from these measures, the latter only for a limited time. (Reference: (CHBCM) Bulletin Mensuel, , , 26 Mar 1991)
FRA	**23 Jul 1992**	The Directorate of Pharmacy and Medicines of the Ministry of Health and Humanitarian Action has suspendedthe marketing authorization for medicinal products derived from bovine tissues. (Reference: (FRAMHH) Ministry of Health and Humanitarian Action, , , 23 July 1992) **WHO Comment : Bovine tissues are used to make important medicinal products such as heparin, glucagon, insulin and bloodfactors. In, 1986, bovine spongiform encephalopathy (transmitted from scrapie) was diagnosed in the United Kingdom. Restrictions on use of bovine material took into consideration the fact that the prion (sub-viral agent) causing the spongiform encephalopathy appears to be transmissible orally between species. As yet, there is no evidence of any direct causal relationship between scrapie and creutzfeld-jacob disease or any other spongiform encephalopathy of man. Nonetheless, a substantial array of research projects have been funded and in the interim precautionary measures were taken by the regulatory agencies.**

Product Name **Bromfenac**

C.A.S. number **91714-94-2**

Scientific and common names, and synonyms

AHR-10282

SODIUM[2-AMINO-3-(P-BROMOBENZOYL)PHELYL]ACETATE SESQUIHYDRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Jun 1998**	Wyeth Ayerst Laboratories have voluntarily withdrawn from the market capsules of bromfenac sodium, a nonsteroidal anti- inflammatory analgesic indicated for the short-term management of acute pain. This action was taken on the basis of reports of severe hepatic failure resulting in four deaths and 8 liver transplants. (Reference: (FEREAC) Federal Register, 64 (44) , p. 10944, 1999)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market products containing bromfenac because of reports of liver failure, sometimes fatal. (Reference: (SAUCW) Notification, , , 20 June 1999)

Product Name **Bromisoval**

C.A.S. number **496-67-3**

Legislative or regulation action

Product Name **Bromisoval**

C.A.S. number **496-67-3**

Scientific and common names, and synonyms

BROMYLUM

BROMVALETONE

BROMVALERYLUREA

BROMISOVALERYLUREA

2-BROMO-3-METHYLBUTYRYLUREA

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**Jan 1987**	On request of the Board for the Evaluation of Medicines the manufacturers have withdrawn all products containing bromisoval having regard to their dependence potential and the risk of subsequent chronic intoxication. **WHO Comment : Bromisoval is a monureide sedative of long standing. It remains available in several countries. However, it releases the bromide ion and prolonged usage can result in chronic bromide accumulation and intoxication.**

Product Name **Bromocriptine**

C.A.S. number **25614-03-3**

Scientific and common names, and synonyms

ERGOTAMAN-3',6',18-TRIONE,2-BROMO-12'-HYDROXY-2'-(1-METHYLETHYL)-5-(2-METHYLPROPYL)-,(5'ALPHA)-

2-BROMO-ALPHA-ERGOCRYPTINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1989**	Products containing bromocriptine may no longer be indicated for suppression of breast engorgement in mothers who elect not to breastfeed. (Reference: (FDATP) Food and Drug Administration Talk Paper, T89-56, , 27 Sep 1989) **WHO Comment : Bromocriptine, a semisynthetic ergot alkaloid derivative and prolactin inhibitor was introduced into medicine in 1976. It is used in the prevention of lactation, but because of the risk of rebound effect and since only 10% of women benefit therapeutically from such intervention, the United States Food and Drug Administration has requested manufacturers to no longer indicate preparations containing bromocriptine for this purpose. The World Health Organization is not aware of similar action having been taken elsewhere.**

Product Name **Broxyquinoline (see also halogenated hydroxyquinoline derivatives)**

C.A.S. number **521-74-4**

Scientific and common names, and synonyms

5,7-DIBROMO-8-QUINOLINOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Sep 1970**	The Ministry of Health and Welfare has prohibited the sale of clioquinol and broxyquinoline, and preparations containing them. These decisions were taken following reports that clioquinol might be one of the causes of subacute myelo-optic neuropathy (SMON).

Product Name **Broxyquinoline (see also halogenated hydroxyquinoline derivatives)**

C.A.S. number **521-74-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARE	**9 Jun 1981**	Pharmaceutical preparations containing broxyquinoline are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
SAU		Import of this product is prohibited.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Broxyquinoline is a halogenated hydroxyquinoline. See entry for halogenated hydroxyquinoline derivatives and WHO comment for clioquinol.

Product Name **Bucetin**

C.A.S. number **1083-57-4**

Scientific and common names, and synonyms

3-HYDROXY-P-BUTYROPHENETIDIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1986**	Preparations containing bucetin have been withdrawn from the market and will no longer be considered for registration.
		WHO Comment : Bucetin is an analogue of phenacetin. See WHO comment for phenacetin.

Product Name **Bufexamac**

C.A.S. number **2438-72-4**

Scientific and common names, and synonyms

2-(P-BUTOXYPHEYL)ACETOHYDROXAMIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Dec 1990**	Because of reports of eczematous reactions, the indications for preparations containing bufexamac intended for topical application were restricted to the relief of pruritus in inflammatory dermatological conditions. These preparations could no longer be used for the treatment of eczema. (Reference: (FRARP) La Revue Prescrire, 11(106), 182, 1991)
DEU	**Aug 1991**	The approved product information for preparations containing bufexamac was amended to warn against hypersensitivity reactions, including allergic contact dermatitis, generalized skin sensitization, urticaria, and contact eczema. (Reference: (DAZ) Deutsche Apotheker Zeitung, 131(31), VI, 1991) **WHO Comment : Bufexamac, an analgesic and anti-inflammatory agent, was introduced in 1974 for the topical treatment of a wide range of dermatoses. The drug is widely marketed and the World Health Organization is not aware of restrictive action having been taken elsewhere.**

Product Name **Buformin**

C.A.S. number **692-13-7**

Product Name **Buformin**

C.A.S. number **692-13-7**

Scientific and common names, and synonyms

BUTYLFORMIN
BUTYLDIGUANIDE
BUTYLBIGUANIDE
BUTFORMIN
BUFORMINE
GLYBIGIDUM
N-BUTYL-IMIDODICARBONIMIDIC DIAMIDE
N-BUTYLDIGUANIDE
1-BUTYLBIGUANIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**1978**	Warnings and contraindications have been added to currently marketed products with this ingredient. It has been recommended that dosages lower than 100 mg/day be followed due to the risk of lactic acidosis.
DEU	**Mar 1978**	Withdrawn from the market because of occurrence of lactic acidosis.
AUT	**Sep 1978**	In conformity with decisions taken in several other countries, and following reports of occasional fatal cases of lactic acidosis, all products containing phenformin and buformin will be withdrawn. Metformin will remain available for use for limited indications.
BEL	**1979**	Voluntarily withdrawn from the market by the manufacturer.
IRL	**1979**	The biguanide hypoglycaemics, phenformin and buformin, were withdrawn from the market in Ireland in 1979 as a result of concern regarding lactic acidosis. Metformin will remain available but doctors are urged to ensure that patients receiving it are kept under regular surveillance. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, 14, , 1979)
VEN		Subject to restricted use and/or sale.
		WHO Comment : Buformin is an analogue of phenformin. See WHO comment for phenformin. **(Reference: (WHODI) WHO Drug Information, 2, 4, 1977)**

Product Name **Bumadizone**

C.A.S. number **3583-64-0**

Scientific and common names, and synonyms

BUTYLMALONIC ACID MONO(1,2-DIPHENYLHYDRAZIDE)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1985**	Indications restricted to severe exacerbations of rheumatism and acute gout. Duration of oral treatment should not exceed one week. Parenteral preparations are indicated exclusively for initiating therapy. A single injection only is recommended because local tissue damage may occur. Preparations are contraindicated in children under 14 years of age.
OMN	**Sep 1986**	The Ministry of Health has prohibited the import of preparations containing bumadizone except those intended for topical use.
AUT		Indications restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to

Product Name **Bumadizone**

C.A.S. number **3583-64-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984)
		WHO Comment : Bumadizone, a pyrazolone derivative with antiinflammatory, analgesic and antipyretic activity, was introduced in 1972 for the treatment of rheumatic disorders. As it is structurally related to phenylbutazone it is subjected to rigorously restricted indications by some national regulatory authorities. See WHO comment for phenylbutazone.

Product Name **Bunamiodyl**

C.A.S. number **1233-53-0**

Scientific and common names, and synonyms

CINNAMIC ACID, 3-BUTYRAMIDO-ALPHA-ETHYL-2,4,6-TRIIODO-,

2-(3-BUTYRAMIDO-3,4,6-TRIIODOPHENYL-METHYLENE)-BUTYRIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1964**	The National Board of Health refused the approval of bunamiodyl on the grounds that its use is associated with adverse reactions.
USA	**1964**	The Food and Drug Administration withdrew bunamiodyl for oral cholecystography since repeat doses may be associated with oliguria, renal tubular necrosis, and death; the use of other cholecystographic agents within one week after bunamiodyl ingestion may be dangerous. It is contraindicated in patients with a history of renal disease. Evaluation of renal function should be performed before use of the drug. (Reference: (FEREAC) Federal Register, 36, 14493, Aug 1971)
VEN		Not approved for use and/or sale.
		WHO Comment : Bunamiodyl, an orally administered radio-opaque medium, was introduced in 1958 for use in the examination of the biliary tract. By 1964 its use had been associated with cases of renal failure, in some cases fatal, which resulted in its withdrawal by the United States Food and Drug Administration. Buniamiodyl was withdrawn worldwide by the manufacturer in 1984.

Product Name **Buprenorphine**

C.A.S. number **52485-79-7**

Scientific and common names, and synonyms

6,14-ETHENOMORPHINAN-7-METHANOL, 17-(CYCLOPROPYLMETHYL)-ALPHA-(1,1- DIMETHYLETHYL)-4,5-EPOXY-18,19-DIHYDRO-3-HYDROXY-6-METHOXY-ALPHA-METHYL-,[5ALPHA, 7ALPHA, (S)]-

21-CYCLOPROPYL-7ALPHA-((S)-1-HYDROXY-1,2,2-TRIMETHYLPROPYL))-6,14-ENDO-ETHANO-6,7,8,14-TETRAHYDRO-ORIPAVINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**22 Sep 1983**	Buprenorphine was included in Part IV of the Third Schedule of the Misuse of Drugs Act 1975. This implies that this substance is now subjected to the same controls as amobarbital, butobarbital and cyclobarbital. These include a requirement that prescriptions be written in triplicate on forms provided by the Department of Health.

Product Name **Buprenorphine**

C.A.S. number **52485-79-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	**1 Jun 1984**	Subjected to control at national level analogous to that provided by Schedule I of the 1961 Single Convention on Narcotic Drugs.
DEU	**1 Sep 1984**	Subjected to control at national level analogous to that applied to substances included in the 1961 Single Convention on Narcotic Drugs.
EGY	**26 Nov 1986**	Withdrawn from the market.
MUS	**2000**	The Ministry of Health and Quality of Life has listed buprenorphine as a Schedule II medicine under the new Dangerous Drugs Act 2000. This is because abuse of the drug by intravenous as opposed to oral use has been reported to cause a number of deaths. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000) **WHO Comment : Buprenorphine, an opioid analgesic with both morphine agonist and antagonist activity, was introduced in 1978. It was originally considered to possess low dependence potential. However, it has latterly been identified as causing a socially significant abuse problem in several countries which have consequently subjected it to control in 1989 under Schedule III of the 1971 Convention of Psychotropic Substances.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Buspirone hydrochloride**

C.A.S. number **33386-08-2**

Scientific and common names, and synonyms

8-[4-(4-PYRIMIDIN-2-YLPIPERAZIN-L-YL)BUTYL]-8-AZASPIRO[4,5]DECANE-7,9-DIONE HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS	**May 2000**	The Ministry of Health and Quality of Life has rescheduled the antipsychotic agent buspirone into Schedule III of the consolidated Dangerous Drugs Act 2000 following observations of irrational use and emerging abuse. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)

Product Name **Cadralazine**

C.A.S. number **64241-34-5**

Scientific and common names, and synonyms

ETHYL 6-[(2-HYDROXYPROPYL)AMINO]-3-PYRIDAZINYL]HYDRAZINECARBOXYLIC ACID ETHYL ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1992**	The Medicines Control Authority refused an application for registration of the peripheral vasodilator, cadralazine on the grounds that the pharmacological and clinical documentation was inadequate. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 25, 1992) **WHO Comment : Cadralazine, a peripheral vasodilator, was introduced in 1989 for the treatment of arterial hypertension.In 1992, its association with serious side effects led to the refusal of registration in Norway. Animal experiments have demonstrated drug-related impairment of thyroid function as well as potential**

Product Name **Cadralazine**

C.A.S. number **64241-34-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		carcinogenicity and genotoxicity. It remains available for treatment of hypertension in Italy.

Product Name **Calamus**

C.A.S. number **8015-79-0**

Scientific and common names, and synonyms

OIL OF CALAMUS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Nov 1968**	Withdrawn from the market and prohibited for export by the Food and Drug Administration on the basis of findings of animal carcinogenicity. (Reference: (FEREAC) Federal Register, 33, 17204, Nov 1968) **WHO Comment : Calamus, the dried rhizome of acorus calamus, has been used as a bitter and carminative. The World Health Organization has no information further to the above regarding preparations containing calamus or to indicate that they are still commercially manufactured.**

Product Name **Camelia sinensis**

C.A.S. number **2004-0-0003**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA		The French and Spanish Advisory Board have suspended the marketing authorization of a green tea (camelia sinensis) product (exolise), prepared from the ethanolic extract of green tea, due to several reports of hepatic disorders.
ESP	**11 Apr 2003**	The French and Spanish Advisory Board have suspended the marketing authorization of a green tea (camelia sinensis) product (exolise), prepared for the ethanolic extract of green tea, due to several reports of hepatic disorders. (Reference: (ESPSPS) Communication to WHO, , , 11 Apr 2003)

Product Name **Camphor**

C.A.S. number **76-22-2**

Scientific and common names, and synonyms

ALCANFOR

CAMPHORA

ROOT BARK OIL

1,7,7-TRIMETHYLBICYCLO(2,2,1)HEPTANE-2-ONE

2-CAMPHANONE

2-BORNANONE

Legislative or regulative action

Legislative or regulation action

Product Name **Camphor**

C.A.S. number **76-22-2**

Country	Effective Date	Description of action taken Grounds for decision
FRA	**17 Nov 1983**	The National Commission of Pharmacovigilance has recommended that preparations containing camphor be contraindicated in infants under 30 months and that they be used with caution in older children. This action results from reports of convulsions associated with topical application or inhalation.
ZAF	**1999**	The South African Medicines Control Council has removed camphor from all medicines unless efficacy data is submitted. (Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,)
EGY		The Technical Committee for Drug Control has published a warning that products containing camphor be contraindicated in infants under 30 months and that they be used with caution in older children. This action results from reports of convulsions associated with topical application or inhalation.
ITA		All pharmaceutical products containing camphor must bear the following warning: "This product is contraindicated in children under two years of age with a history of laryngospasm or convulsions. Caution must be exercised when older children are treated.". (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, (12), , 1984) **WHO Comment : Camphor, an aromatic crystalline substance with mild local anaesthetic activity, is available in preparations for both external application and inhalation. The use of such preparations has precipitated convulsions in susceptible infants. This has led several regulatory authorities to require the inclusion of appropriate warnings on labelling.**

Product Name **Canrenone**

C.A.S. number **976-71-6**

Scientific and common names, and synonyms

ALDADIENE

PREGNA-4,6-DIENE-21-CARBOXYLIC ACID, 17-HYDROXY-3-OXO-, GAMMA-LACTONE (17ALPHA)-

17-HYDROXY-3-OXO-17ALPHA-PREGNA-4,6-DIENE-21-CARBOXYLIC ACID GAMMA- LACTONE

17ALPHA-(2-CARBOXYETHYL)-17BETA-HYDROXYANDROSTA-4,6-DIEN-3-ONE LACTONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1986**	Preparations containing canrenone have been withdrawn having regard to the possible carcinogenic risk associated with long-term use. **WHO Comment : Canrenone, which has aldosterone antagonist activity, is a major metabolite of spironolactone and the major metabolite of potassium canrenoate. See WHO comments for potassium canrenoate and spironolactone.**

Product Name **Canthaxanthin**

C.A.S. number **514-78-3**

Scientific and common names, and synonyms

BETA,BETA-CAROTENE-4,4'-DIONE

COLOUR INDEX NO.40850

CI FOOD ORANGE 8

E.161.G

Legislative or regulative action

Legislative or regulation action

Product Name **Canthaxanthin**

C.A.S. number **514-78-3**

Country	Effective Date	Description of action taken Grounds for decision
DEU	**May 1985**	The Federal Health Office has prohibited the use of canthaxanthin which is used in the treatment of certain photodermatoses and is contained in orally administered bronzing agents following reports of crystalline deposits in the retina.
AUT	**31 Dec 1985**	The Federal Ministry of Health and Environmental Protection has agreed with the manufacturer to withdraw pharmaceutical preparations containing canthaxanthin following reports of crystalline deposits in the retina.
IRL	**1986**	Having regard to reported ocular toxicity associated with long-term use of the tanning agent canthaxanthin, the National Drugs Advisory Board has informed manufacturers that it will no longer be permitted as a constituent of medicinal products. In 1989 the Board was additionally advised that the compound be excluded from tanning preparations. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , , 1986)
EGY	**1987**	The Technical Committee for Drug Control has decided that canthaxanthin will no longer be accepted as a bronzing agent to avoid ophthalmic problems. (Reference: (EGYDI) Drug Information, 5(2), 1, 1987)
OMN	**Sep 1987**	Import and marketing of products containing canthaxanthin were prohibited. (Reference: (OMNDI) Drug Information, 5(2):1, , 1987)
		WHO Comment : Canthaxanthin, a naturally-occurring carotenoid with a deep red-orange colour, is widely used as a food colouring agent. Since the mid-1970s it has been included in oral 'artificial suntan' preparations. It is also available in preparations used in the treatment of certain photodermatoses. By the mid-1980s its use in such preparations had been associated with the accumulation of crystalline deposits in the retina. Reported functional changes relating to dark adaptation have been of marginal clinical significance and largely reversible. Nevertheless, this has led to the withdrawal of artificial suntan preparations containing canthaxanthin by several regulatory authorities. Preparations for treatment of photodermatoses remain available in some but not all of these countries.

Product Name **Cartilage extract**

Scientific and common names, and synonyms

AQUEOUS CALF CARTILAGE & BONE MARROW EXTRACT

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jun 1992**	The marketing authorization of injectable preparations containing calf cartilage and bone marrow extract was suspended, in the first instance, until 31 December 1992. The decision resulted from an apparent association with serious adverse effects including local intolerance and anaphylactoid reactions, renal insufficiency, pulmonary fibrosis and autoimmune diseases of the skin and muscles. (Reference: (DEUPD) BGA Pressedienst, 24, , 1992)
		WHO Comment : A preparation containing calf cartilage and bone marrow extract was introduced in 1960 for the treatment of degenerative joint disease, and it is currently registered in several countries. In 1987, a risk-benefit assessment of the product was commissioned in Germany. This resulted initially in its use being contraindicated in patients with altered immune responses. Subsequently, the marketing authorization was suspended in Germany in 1992 when the product was associated with serious adverse effects.

Product Name **Cathine**

C.A.S. number **492-39-7**

Scientific and common names, and synonyms

(+)-THREO-2-AMINO-1-HYDROXY-1-PHENYLPROPYLPROPANE

(+)-NORPSEUDOEPHEDRINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jul 1981**	Administration of centrally active appetite inhibiting preparations containing cathine has been restricted to four weeks. A warning concerning the risk of dependence has been included in the package leaflet.
PHL	**Oct 1983**	Disapproved for use in appetite control due to the risk of drug dependency and other adverse effects such as apathy, depression, chronic gastroduodenitis, dyspeptic disorders and dreamy euphoria with loquacity.
GRC	**1985**	Not accepted as an appetite suppressant having regard to its low benefit-to-risk ratio (systemic side-effects). **WHO Comment : Cathine, a sympathomimetic amine, was formerly widely available in proprietary anorexic preparations. As dependence can occur and abuse has been reported, cathine has recently (1986) been subjected to control under Schedule III of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Cefaloridine**

C.A.S. number **50-59-9**

Scientific and common names, and synonyms

CEPHALORIDINE

PYRIDIUM,1-[[2-CARBOXY-8-OXO-7-[(2-THIENYLACETYL)AMINO]-5-THIA-1-AZABICYCLO[4.2.0]-OCT-2-EN-3-YL]METHYL]-,HYDROXIDE, INNER SALT, (6R-TRANS)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**1989**	The marketing authorization of products containing cefaloridine has been withdrawn, having regard to their nephrotoxicity. (Reference: (ESPINS) Información Terapéutica de la Seguridad Social, 13(1), 7, 1989) **WHO Comment : Cefaloridine, a semi-synthetic cephalosporin antibiotic, was introduced into medicine in 1964 for the treatment of bacterial infections. It is considered to be the most toxic of the cephalosporins, and for this reason is now seldom used. Nevertheless, it still remains available in certain countries and the World Health Organization is not aware of restrictive actions taken elsewhere.**

Product Name **Cefalosporins (topical preparations)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHL		Pharmaceutical preparations for topical use containing cefalosporin and its derivatives are prohibited. (Reference: (CHLRS) Resolution of the Minister of Health, No.10154, , Oct 1986)

Product Name **Cell preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	**Aug 1987**	Deep-frozen cell preparations used in the practice of cell therapy have been banned, on the grounds that fatalities associated with these products have been reported in the Federal Republic of Germany and that marketing authorization has been suspended in this country. (Reference: (DAZ) Deutsche Apotheker Zeitung, 127(34), 1720, 1987)
DEU	**30 Jun 1988**	The marketing authorization for injectable preparations used in the practice of cell therapy has been withdrawn, having regard to the serious and sometimes fatal reactions associated with these products, which have not been demonstrated to possess any therapeutic effect. (Reference: (DEUPD) BGA Pressedienst, 22, , 1988)
CHE	**Jul 1988**	All products prepared from fresh animal cells have been banned, on the grounds that fatalities associated with their use had been reported in the Federal Republic of Germany and that efficacy had not been demonstrated. (Reference: (CHBCM) Bulletin Mensuel, , , 31 Aug 1988) **WHO Comment : Injectable preparations used in the practice of cell therapy were introduced into medicine many years ago.They contain cells from organs or tissues of fetal or juvenile animals of species such as sheep, cattle, swine and rabbits. A variety of indications were claimed by the manufacturers of these products, including adjuvant tumour therapy, Down's syndrome, ageing, immune defects, endocrine disturbances, diseases of the motor system, the central nervous system, the heart and vascular system and chronic liver disease. Whilst proof of efficacy in these indications has never been established, the use of cell preparations has been associated with severe, sometimes fatal adverse immunological reactions, particularly with anaphylactic shock and serum sickness. This has led to their withdrawal by regulatory authorities in the countries listed above.**

Product Name **Cerivastatin**

C.A.S. number **145599-86-6**

Scientific and common names, and synonyms

(3R,5S,6E)-7-[4-(4-FLUOROPHENYL)-2,6-DIISOPROPYL-5-(METHOXYMETHYL)-3-PYRIDYL]-3,5-DIHYDROXY-6-HEPTENOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Nov 1999**	Prescribing information was changed to include a contraindication for the combined use of cerivastatin and gemfibrozil.
AUS	**Feb 2001**	Prescribing information was changed to include a contraindication for the combined use of cerivastatin and gemfibrozil and warning issued to alert prescribers to the possibility of rhabdomyolysis with all statins. (Reference: (AUSADR) Australian Adverse Drug Reactions Bulletin, Vol. 20(1), , Feb 2001)
CAN	**Mar 2001**	Prescribing information was changed to include a contraindication for the combined use of cerivastatin and gemfibrozil.
USA	**May 2001**	The Dosage and Administration section was revised to highlight that 0.4 mg is the starting dose for cerivastatin. (Reference: (USADHP) "Dear Healthcare Professional " letter, , ,)
@EC	**Jun 2001**	Europe-wide regulatory action was taken to reduce the risk of rhabdomyolysis, when the concomitant use of cerivastatin and gemfibrozil was contraindicated and the maximum

Product Name **Cerivastatin**

C.A.S. number **145599-86-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		daily dose of cerivastatin was reduced to 0.4 mg. (Reference: (GBRDSI) Drug Safety Information, , , 08 Aug 2001)
CAN	**Jul 2001**	The prescribing information was revised to recommend a starting dose of 0.2 mg. (Reference: (CANDHP) "Dear Healthcare Professional" letter, , ,)
@WD	**Aug 2001**	Cerivastatin was voluntarily withdrawn from the world market by the parent company (Bayer) on account of the increased risk of rhabdomyolysis associated with its use, particularly when used in combination with gemfibrozil. (Reference: (FDATP) Food and Drug Administration Talk Paper, TOI-34, , 08 Aug 2001)

Product Name **Chenodeoxycholic acid**

C.A.S. number **474-25-9**

Scientific and common names, and synonyms

CHOLAN-24-OIC ACID, 3,7-DIHYDROXY-, (3ALPHA,5BETA,7ALPHA)-

CHENODIOL

3ALPHA,7ALPHA-DIHYDROXY-5BETA-CHOLAN-24-OIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1987**	Chenodeoxycholic acid is not approved for registration on grounds of animal studies indicating a carcinogenic effect and because the risk of a cancer-promoting effect in man is considered significant. **WHO Comment : Chenodeoxycholic acid was introduced in 1975 for the treatment of cholelithiasis. It is available in several countries and the World Health Organization is not aware that registration has been refused in any other country.**

Product Name **Chloramphenicol**

C.A.S. number **56-75-7**

Scientific and common names, and synonyms

ACETAMIDE, 2,2-DICHLORO-N-(2-HYDROXY-1-(HYDROXYMETHYL)-2-(4- NITROPHENYL)ETHYL)-, (R-(R*,R*))

D-THREO-(-)-2,2-DICHLORO-N-(BETA-HYDROXY-ALPHA-(HYDROXYMETHYL)-P-NITROPHENETHYL)ACETAMIDE

LAEVOMYCETINUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1975**	Use should be limited to treatment of acute attacks of typhoid and paratyphoid fever, purulent meningitis and life-threatening infections caused by sensitive organisms in which less dangerous antibiotics are ineffective or contraindicated.
JPN	**Oct 1975**	Indications have been restricted.
DNK	**1978**	Doctors have been advised that systemic chloramphenicol should be used only in patients requiring admission to hospital. It is contraindicated in uncomplicated urinary tract infections. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 1165, 1978)
FRA	**22 Sep 1978**	Products for topical application containing chloramphenicol have been withdrawn from

Product Name **Chloramphenicol**

C.A.S. number **56-75-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		the market, with the exception of eyedrops and ophthalmic ointments. Indications for products intended for internal use are restricted to serious infections caused by organisms sensitive to chloramphenicol when other potentially less dangerous products are ineffective.
PHL	**Jul 1982**	Severely restricted in use due to the risk of developing agranulocytosis. Limited to indications of typhoid fever, meningitis and brain abcess.
EGY	**Jul 1983**	All pharmaceutical preparations containing chloramphenicol should bear the following warning: "Not to be used for long periods or repeatedly, even in small doses, to avoid the risk of toxic effects such as bone marrow aplasia and acute leukaemia. Use should be restricted to cases not responding to other antibiotics".
NLD	**1984**	Doctors have been reminded that, even when applied topically in the eye, chloramphenicol may induce blood dyscrasias. When chloramphenicol appears to be the drug of choice, the susceptibility of the pathogenic organism should always be confirmed bacteriologically.
CAN	**1985**	Prohibited for administration to animals that may be consumed as food due to persistent residues in food products.
ESP	**1 Mar 1985**	Registration of combination products containing chloramphenicol will no longer be considered because of the propensity of this drug to cause aplastic anaemia.
HUN	**1987**	Chloramphenicol has been banned for therapeutic purposes in milk- and egg-producing animals, having regard to its potential to induce aplastic anaemia in man, and the prolonged period during which residues remain demonstrable after withdrawal. (Reference: (HUNIH) National Institute of Occupational Health Notification, , , 25 May 1988)
IRL	**Oct 1989**	The administration of chloramphenicol to all food-bearing animals (including horses) has been prohibited, on the grounds that the drug enters the food chain and may therefore cause adverse effects and transferable drug resistance in man. (Reference: (IRDAP) Animal Pharm, 187, 4, Sep 1989) (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , 312, 1987) **WHO Comment : Chloramphenicol, an antibiotic isolated from Streptomyces venezuelae in 1947, first became available for general clinical use in 1948. By 1950 it was evident that its use could cause serious, sometimes fatal, blood dyscrasias. However, it remains one of the most effective antibiotics for treating invasive typhoid fever and salmonellosis, some rickettsioses and serious infections caused by Haemophilus influenzae or anaerobic organisms. This is considered to justify its retention in the WHO Model List of Essential Drugs.** **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Chlormadinone acetate**

C.A.S. number **302-22-7**

Scientific and common names, and synonyms

6-CHLORO-17-HYDROXYPREGNA-4,6-DIENE-3,20-DIONE ACETATE

PREGNA-4,6-DIENE-3,20-DIONE, 17-(ACETYLOXY)-6-CHLORO

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Mar 1972**	Application for approval of oral contraceptives containing chlormadinone acetate

Product Name **Chlormadinone acetate**

C.A.S. number **302-22-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		withdrawn by the manufacturer on recommendation by the Food and Drug Administration after findings in beagle bitches showing an increased incidence of mammary tumours resulting from this component. (Reference: (FEREAC) Federal Register, 37(52), 5516, 1972)
GBR	**1977**	The product licence for an oral contraceptive containing this substance has been cancelled due to the risk of carcinogenicity.
ITA	**1979**	Withdrawn from the market because of an increased incidence of breast tumours in beagle dogs during the course of long-term toxicity tests.
EGY	**1980**	Chlormadinone was not approved having regard to its potential to cause breast tumours in dogs.
VEN		Not approved for use and/or sale.
		WHO Comment : Chlormadinone acetate, a synthetic progestogen, was introduced in 1965 as a component in oral contraceptive preparations. In 1967, as a result of new regulations required by the United States Food and Drug Administration, chlormadinone acetate was submitted to long-term toxicity studies and by the early 1970s it was shown to be associated with an increased incidence of mammary tumours in beagle bitches which led to its withdrawal by several regulatory authorities. Subsequently the validity of the beagle bitch model as a predictor of carcinogenicity of steroid contraceptives has been contested by many national regulatory authorities and chlormadinone remains available in some countries for contraceptive purposes. In some instances it is indicated for treatment of progesterone deficiency and endometriosis, and of irregular uterine bleeding due to fibroids. **(Reference: (WHODI) WHO Drug Information, 84.1, 5, 1984)**

Product Name **Chlormezanone**

C.A.S. number **80-77-3**

Scientific and common names, and synonyms

CHLORMETHAZANONE

2-(P-CHLOROPHENYL)-TETRAHYDRO-3-METHYL-4H-1,3-THIAZIN-4-ONE 1,1-DIOXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**15 Nov 1996**	Because of severe cutaneous reactions including life-threatening toxic epidermal necrolysis, Stevens-Johnson syndrome, and fixed drug eruptions, the manufacturer of chlormezanone withdrew the drug worldwide. This coincided with local action undertaken in several countries. The withdrawal concerns chlormezanone used alone or in combination. (Reference: (SANOFI) Letter to Regulatory Agencies, Sanofi, , , 09 Oct 1996)
ARE	**1997**	The Ministry of Health has withdrawn marketing approval for pharmaceutical products containing chlormezanone because it has been associated with an unacceptable incidence of Stevens-Johnson syndrome. (Reference: (UAEDIB) Drug Information Bulletin, No. 3, p.2, 1997)
ZAF	**1998**	The South African Medicines Control Council has withdrawn products containing chlormezanone because of the unacceptable risk-benefit profile which is not in the interest of public health. (Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,)

Product Name **Chlormezanone**

C.A.S. number **80-77-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ZWE	**1998**	The Medicines Control Authority has cancelled the registration of all chlormezanone-containing products in the light of international actions taken on the basis of a safety evaluation of chlormezanone. This drug has been associated with an unacceptable incidence of Stevens-Johnson syndrome. (Reference: (ZWEDIB) Drug Information Bulletin, Vol.2 No.1, , Mar 1998)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market products containing chlormezanone because of an unacceptable incidence of Stevens-Johnson syndrome. (Reference: (SAUCW) Notification, , , 20 June 1999)
SGP		The National Pharmaceutical Administration in the Ministry of Health has banned chlormezanone since it has been associated with reports of life-threatening toxic epidermal necrolysis and borderline major bullous forms. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000) **WHO Comment : Chlormezanone is a sedative with antianxiety properties and a central skeletal muscle relaxant effect. It had already been falling into obsolescence for several years.**

Product Name **Chlornaphazine**

C.A.S. number **494-03-1**

Scientific and common names, and synonyms

BETA-NAPHTHYLBIS(BETA-CHLOROETHYL)AMINE

NAPHTHYLAMINE MUSTARD

N,N-BIS(2-CHLOROETHYL)- 2-NAPHTHYLAMINE

2-NAPHTHALENAMINE, N,N-BIS(2-CHLOROETHYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DNK	**1964**	The National Health Service withdrew chlornaphazine, a drug used against lympho-granulomatosis, polycythaemia and chronic leukaemia, as it appeared to be carcinogenic especially in the bladder.
VEN		Not approved for use and/or sale. **WHO Comment : The World Health Organization has no information further to the above regarding preparations containing chlornaphazine or to indicate that they are still commercially manufactured.**

Product Name **Chloroform**

C.A.S. number **67-66-3**

Scientific and common names, and synonyms

METHANE, TRICHLORO-

TRICHLOROMETHANE

TRICHLOROFORM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Legislative or regulation action

Product Name **Chloroform**

C.A.S. number **67-66-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1976**	Not accepted in pharmaceuticals or cosmetics.
TUR	**1976**	Removed from all cough syrups after a decision by the Ministry of Health based on a review of published information regarding carcinogenicity in rats. Export of this product is prohibited.
JPN	**May 1976**	Banned by the Pharmaceutical Affairs Bureau in Drugs and Cosmetics for reasons of carcinogenicity.
USA	**Jul 1976**	Withdrawn from the market and prohibited for export in drugs and cosmetics by the Food and Drug Administration on the basis of findings of liver cancer in experimental mice and rats by the National Cancer Institute. (Reference: (FEREAC) Federal Register, 41, 26842, July 1976)
PAN	**30 Nov 1976**	The Ministry of Health has banned the sale of pharmaceuticals containing chloroform. (Reference: (PANMR) Ministry of Health Resolution, 1843, , Aug 1976)
SAU	**1977**	Sale or supply of any medicinal product containing chloroform has been prohibited by the Drug Committee.
BRA	**25 May 1977**	Products containing chloroform are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.15, , May 1977)
ITA	**1978**	Withdrawn from the market owing to suspected carcinogenicity.
CAN	**Jan 1978**	National legislation has provided that no manufacturer or importer shall sell a drug for human use that contains chloroform as an ingredient. The Health Protection Branch has reviewed evidence from the National Cancer Institute in the US which suggests that chloroform may be carcinogenic in rats and mice when administered in high doses over prolonged periods. Export of this product is allowed with no requirement of foreign notification regarding domestic restrictions on its use. (Reference: (CANGZ) Canada Gazette, , , Nov 1977)
NOR	**Apr 1978**	Prohibited for use in pure form or as an additive to pharmaceutical preparations.
PHL	**Apr 1978**	Prohibited for use as an ingredient in human drugs and cosmetics on the grounds of results of a study by the National Cancer Institute in the United States, suggesting that the substance may be carcinogenic in rats and mice when administered over prolonged periods. (Reference: (PHADO) Administrative Order, 341S, , 1978)
GBR	**1979**	The Chloroform Prohibition Order has prohibited the sale or supply of any medicinal product containing chloroform. Certain exemptions apply. (Reference: (GBCHL) Chloroform Prohibition Order, , , 1979)
NZL	**1980**	Toothpaste formulations containing chloroform have been voluntarily withdrawn from the market.
DNK	**1981**	Registered for veterinary use only. (Reference: (DENBH) Danish National Board of Health, Circular Letter, , , Sep 1981)
ETH	**1981**	Prohibited because of its carcinogenic effects.
ZWE	**May 1981**	Medicinal products containing more than 0.5% chloroform are prohibited because of the toxicity of the drug. Certain exemptions apply. (Reference: (ZWDCC) Drugs Control Council, News Bulletin, 1, , 1983)
DEU	**1982**	Prohibited for use and/or sale.
BGD	**Jun 1982**	Use of chloroform as an excipient in pharmaceutical preparations has been banned due to reported adverse effects.
DOM	**1983**	Domestic manufacturers and importers have been requested to eliminate this ingredient

Product Name **Chloroform**

C.A.S. number **67-66-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		from their marketed products since pharmacological studies have shown it to be toxic to the liver and the heart, and to be carcinogenic.
BEL	**12 Feb 1983**	Prohibited for sale. (Reference: (BELAR) Arrêté Royal, , , Feb 1983)
NGA	**1 Feb 1985**	Chloroform is not allowed in cosmetic and drug products since 1 Feb. 1985. From that date, import, export and sale of products containing chloroform became illegal. The decision was based on reports from literature of the carcinogenic effects of chloroform on animals and possible hepatotoxic and nephrotoxic effects after prolonged use by humans. (Reference: (AARNO) Administrative Action, MH.1856/S.3T, 112, 15 Sep 1983)
IRL	**1989**	Having regard to their toxicity, approval for marketing of all preparations containing chloroform was withdrawn. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , 29, 1989)
OMN	**27 Jul 1992**	Sale and marketing of products containing chloroform were prohibited, having regard to reported adverse effects and toxicity. (Reference: (OMNCR) Circular, 27/92, , July 1992)
CUB		Following the action taken by the US Food and Drug Administration, the National Formulary Commission requested removal of chloroform from pharmaceutical preparations.
THA		The use of pharmaceutical preparations containing chloroform is severely restricted.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Chloroform was formerly widely used in pharmaceutical preparations as a solvent and preservative as well as for its anaesthetic and flavouring properties. By the late 1970s reservations concerning its safety, including positive results in a carcinogenicity screening programme sponsored by the National Cancer Institute in the USA, had led to considerable restrictions in its use in pharmaceutical preparations. While many pharmaceutical products containing chloroform have been withdrawn or reformulated to exclude this substance, it may still be incorporated in toothpastes and other specified products in some countries, subject to statutorily-imposed concentration limits. **(Reference: (IARCCD) Chloroform: IARC Monograph, 20(20), 401-427, 1979)**

Product Name **Chloroquine**

C.A.S. number **54-05-7**

Scientific and common names, and synonyms

7-CHLORO-4-((4-(DIETHYLAMINO)-1-METHYLBUTYL)AMINO)-QUINOLINE

1,4-PENTANEDIAMINE, N4-(7-CHLORO-4-QUINOLINYL)-N1,N1-DIETHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**1975**	Chloroquine was voluntarily withdrawn from production and sale by the manufacturer due to the risk of retinopathy associated with its use at high doses in the treatment of rheumatoid arthritis and related diseases.
		WHO Comment : Chloroquine, a 4-aminoquinoline derivative, was introduced in the 1940s for the treatment and prophylaxis of malaria. It was subsequently found to be effective in higher and prolonged dosage in the treatment of lupus erythematosus, rheumatoid arthritis and nephritis. In the early 1970s its use in these latter

Product Name **Chloroquine**

C.A.S. number **54-05-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		conditions was largely discontinued when it was found that prolonged daily administration at high dosage was associated with cases of retinopathy resulting from local deposition of the compound. Chloroquine however remains a valuable drug. It can be used continuously at the dosages required for malaria prophylaxis for as long as five years without risk of undue accumulation and it is included in the WHO Model List of Essential Drugs for both its antimalarial and antiamoebic activity. **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Chlorphentermine**

C.A.S. number **461-78-9**

Scientific and common names, and synonyms

P-CHLORO-ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE

1-(P-CHLOROPHENYL)-2-METHYL-2-AMINOPROPANE

4-CHLORO-ALPHA,ALPHA-DIMETHYL-BENZENEETHANAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1969**	The Ministry of Health withdrew preparations containing aminorex, cloforex and chlorphentermine as a precautionary measure pending scientific evidence of a relationship between their use and the development of pulmonary hypertension.
BEL	**1 Jan 1988**	Preparations containing chlorphentermine have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and cross-bones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
VEN		Banned for use and/or sale. **WHO Comment : Chlorphentermine, a sympathomimetic phenethylamine derivative, was introduced over twenty years ago for the treatment of obesity. Concern that its use was associated with cases of pulmonary hypertension led to its withdrawal in several countries. However, it remains available in some other countries.**

Product Name **Cianidanol**

C.A.S. number **154-23-4**

Scientific and common names, and synonyms

CIANIDOL

(+)-CATECHOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**5 Sep 1985**	Provisionally withdrawn by the Pharmaceutical Division of the Ministry of Health.
@WD	**6 Sep 1985**	Marketing of cianidanol was temporarily suspended worldwide by the manufacturer.
EGY	**22 Oct 1985**	Cianidanol has been withdrawn from the market and importation temporarily prohibited.

Product Name **Cianidanol**

C.A.S. number **154-23-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**26 Jun 1987**	Subsequent to its decision to suspend the marketing authorization of products containing cianidanol, the Federal Health Office has definitively withdrawn registration of these products. (Reference: (FRGGH) Bundesgesundheitsamt Pressedienst, , , June 1987)
CHE	**Jun 1988**	The Intercantonal Office for Drug Control has withdrawn the marketing license for cianidanol.
@WD	**Jun 1988**	Cianidanol was definitively withdrawn worldwide by the manufacturer.
AUT		Use of preparations containing cianidanol has been prohibited until further notice.
		WHO Comment : Cianidanol, which is extracted from the tropical plant Uncaria gambir, was introduced in 1976 as an adjunct in the treatment of liver disorders. Following a cluster of cases of haemolytic anaemia reported in 1985 from Naples, Italy, four of which were fatal, the company suspended sales worldwide. Although subsequently reintroduced in Switzerland and France for the treatment of acute and chronic hepatitis-B, it was later definitively withdrawn in Switzerland on detailed reassessment and the manufacturer has now withdrawn the product worldwide.

Product Name **Cinchophen**

C.A.S. number **132-60-5**

Scientific and common names, and synonyms

CINCHONINIC ACID, 2-PHENYL-

2-PHENYLQUINOLINE-4-CARBOXYLIC ACID.

2-PHENYLCINCHONINIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jun 1991**	Products containing cinchophen were withdrawn, because of the associated risks of hepatic toxicity, including jaundice, hepatitis and cirrhosis and a greater incidence of gastric ulceration than is associated with other nonsteroidal antiinflammatory agents. (Reference: (FRGGH) Bundesgesundheitsamt Pressedienst, , , June 1991)
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy.
		WHO Comment : Cinchophen, an analgesic and antipyretic, was formerly available in preparations for the treatment of gout. Its use was associated with adverse effects including hepatitis, cirrhosis, skin lesions and angioneurotic oedema. WHO has no information to suggest that preparations containing cinchophen remains commercially available.

Product Name **Cinepazide**

C.A.S. number **23887-46-9**

Scientific and common names, and synonyms

1-[(1-PYRROLIDINYLCARBONYL)METHYL]-4-(3,4,5-TRIMETHOXYCINNAMOYL) PIPERAZINE

Legislative or regulative action

Legislative or regulation action

Product Name **Cinepazide**

C.A.S. number **23887-46-9**

Country	Effective Date	Description of action taken Grounds for decision
EGY	**1988**	Registration of products containing cinepazide was refused, having regard to international reports of blood dyscrasias associated with their use. (Reference: (EGYDI) Drug Information, 6(4), 1, 1988)
ESP	**1988**	In agreement with the Ministry of Health, products containing cinepazide have been withdrawn by the manufacturers. (Reference: (ESPOR) Ministerio de Sanidad y Consumo, , , 13 Feb 1991) **WHO Comment : Cinepazide, a vasodilating agent, was first introduced into medicine in 1974. It is used in the treatment of peripheral and cerebral vascular disorders. Following reports of blood dyscrasias, including agranulocytosis and thrombocytopenia, associated with the use of the drug, the Spanish Committee on Drug Surveillance has recommended its withdrawal. In other countries, the approved product information of preparations containing cinepazide has been amended to include a relevant warning on these adverse effects.**

Product Name **Cinnarizine**

C.A.S. number **298-57-7**

Scientific and common names, and synonyms

PIPERAZINE,1-(DIPHENYLMETHYL)-4-(3-PHENYL-2-PROPENYL)

1-CINNAMYL-4-(DIPHENYLMETHYL) PIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**Aug 1989**	Having regard to their potential to induce extrapyramidal symptoms, products containing cinnarizine may no longer be indicated for cerebral and peripheral arterial insufficiency, including loss of memory, insomnia, intermittent claudication, rest pain or vasospastic disturbances. The approved indications are restricted to vestibular disturbances, vertigo, prophylaxis of vascular headache and prevention of motion sickness. (Reference: (ESPINS) Información Terapéutica de la Seguridad Social, 13(8), 176, 1989) **WHO Comment : Cinnarizine, an antihistaminic and vasodilator agent, was introduced into medicine in 1962. It is indicated for the treatment of labyrinthine disturbances and vascular disorders, although its effectiveness in the latter indication has not been convincingly demonstrated.**

Product Name **Ciprofibrate**

C.A.S. number **52214-84-3**

Scientific and common names, and synonyms

PROPANOIC ACID, 2-[4-(2,2-DICHLOROCYCLOPROPYL)PHENOXYL]-2-METHYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jun 1995**	The use of ciprofibrate has been restricted because of dose-dependent rhabdomyolysis. The distribution of the 200 mg dose formulation has been stopped. (Reference: (FRAAMC) Communiqué de Presse, , , 14 June 1995) **WHO Comment : The safety profile of ciprofibrate is similar to that of clofibrate. See also under clofibrate in full edition.**

Product Name **Cisapride**

C.A.S. number **810968-60-4**

Scientific and common names, and synonyms

CISAPRIDUM

CIS-4-AMINO-5-CHLORO-N-[1-[3-(P-FLUOROPHENOXY)PROPYL]-3-METHOXY-4-PIPERIDYL]-O-ANISAMIDE;

R-51619

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**Sep 1999**	The Irish Medicines Board has restricted the indications for cisapirde following reports of cardiac arrhythmia, cardiac arrest and sudden death. (Reference: (IRDDS) Drug Safety Newsletter, , , Sep 1999)
PHL	**2000**	The Department of Health Bureau of Food and Drugs has banned the use of cisapride because of documented reports on adverse events including deaths associated with its use. (Reference: (PHADO) Administrative Order, (97) s. 2000, , 09 Aug 2000)
OMN	**Apr 2000**	The Directorate General of Pharmaceutical Affairs & Drug Control has suspended the marketing of cisapride because of the possibility of rare but serious heart complications including arrhythmias and sudden death. (Reference: (OMNCR) Circular, No. 28/2000, , 30 Apr 2000)
USA	**Apr 2000**	Cisapride has been voluntarily withdrawn from the market because of the risk of rare but serious cardiac events associated with the drug. These include heart rhythm disorders associated with the drug. These include heart rhythm disorders and deaths associated mostly with the use of the drug in people who are either taking certain other medications or who have certain underlying conditions that are known risk factors. (Reference: (FDAWWW) www.fda.gov/medwatch/safety/2000/propull.htm, , ,)
ARE	**15 Apr 2000**	Indications for use of cisapride have been severely restricted because of the risk of rare but serious cardiac events associated with the drug. (Reference: (UAECW) Communication to WHO, , , 10 July 2000)
COL	**May 2000**	The Instituto Nacional de Vigilancia de Medicamentos y Alimentos (INVIMA) in Colombia, Colombian Ministry of Health has restricted the use of cisapride. It should be made available only if other therapeutic management is insufficient. (Reference: (COLVMA) Letter from INVIMA to WHO, , , 21 Aug 2000)
DEU	**Jun 2000**	The Federal Institute for Drugs and Medical Devices has suspended the marketing authorization of cisapride because of the association with cardiac arrhythmias and a number of deaths. (Reference: (DEUCFI) Communication, , , 03 July 2000)
GBR	**Jul 2000**	The Medicines Control Agency has withdrawn cisapride from the market because of rare but serious cardiac adverse effects. (Reference: (GBRMCA) Communication to WHO, , , 21 July 2000)
MUS	**Jul 2000**	Cisapride was withdrawn from the market following reports of adverse cardiac events published by the FDA. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)
CAN	**7 Aug 2000**	Health Canada has withdrawn cisapride because of the possibility of rare but serious heart complications including arrhythmias and sudden death. (Reference: (CANWHC) Warnings/Advisories, , , 31 May 2000)
BDS	**Sep 2000**	The Drug Advisory Committee of the Ministry of Health has withdrawn cisapride (Prepulsid) from the market because of reports of serious cardiovascular adverse effects. (Reference: (BDSMHS) Official letter to WHO, , , 30 Sep 2000)
TUR	**May 2000**	General Directorate of Pharmaceuticals and Pharmacy of the Ministry of Health has withdrawn cisapride from the market because of serious cardiovascular adverse effects seen in the world. (Reference: (TURCW) Communication to WHO, , , 20 Sep 2001)

Product Name **Cisapride**

C.A.S. number **810968-60-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IDN	**30 Jun 2000**	The Directorate General of Drug and Food Control has suspended the marketing authorization for cisapride and has withdrawn it from the market until the risk/benefit ratio is further reviewed because of the possibility of rare but serious heart complications including arrhythmias and sudden death. (Reference: (IDNCW) Communication to WHO, , , 13 Sep 2001)
SGP	**Sep 2000**	The product licences for all cisapride containing preparations were suspended by the National Pharmaceutical Administration, Ministry of Health, Singapore in September 2000 following reports of increased risk of serious cardiac arrhythmia. Cisapride may still be made available on an individual basis.
IDN	**Oct 2000**	The Directorate General of Drug and Food Control has allowed the marketing authorization for 5 mg cisapride with restrictions on indication, dosage, access and distribution. Availability has been restricted to only a few hospitals, with close monitoring for adverse reactions. (Reference: (SGPCW) Communication to WHO, , , 19 Sep 2001) (Reference: (IDNCW) Communication to WHO, , , 13 Sep 2001)
JPN	**Oct 2000**	The Ministry of Health and Welfare, Tokyo has decided to suspend marketing authorization of cisapride until its risk/benefit ratio is further reviewed. (Reference: (JPNMHC) Communication to WHO, , , 18 Oct 2000)
CUB	**Jan 2001**	The Centre for State Control of Drug Quality in Cuba (CECMED) has banned the use of cisapride until its risk/benefit ratio is further reviewed. (Reference: (CUBCDQ) CECMED Resolution, No. 1/2001, , 08 Jan 2001)
BRA	**Apr 2001**	The National Health Surveillance Agency severely restricted the use of cisapride through prescription and suspended the marketing authorization with the exception of manufacturers with their own Pharmacovigilance System. (Reference: (BRARES) Resolucao n., 530/ANVISA, , 18 Apr 2001)
BHR	**May 2001**	Cisapride was withdrawn from the local market in May 2001. The action was based on reports of serious cardiac events. (Reference: (BHRCW) Communication with WHO, , , 20 Aug 2001)
THA	**Jun 2001**	Severely restricted for prescription use by gastrointestinal physicians and limited use in gastro-esophageal-reflux-disease patients only. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)
CHL	**Jul 2001**	The Public Health Institute of Chile has restricted the indications for cisapride because of the risk of serious cardiac adverse effects. The use in children is contraindicated. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)
AUS	**Dec 2002**	Highest strength tablets of cisapride have been withdrawn and product information has been revised. All patients now require measurements of renal function and ECGs before and during treatment. Follow up measures should be undertaken every three months. Concerns about cardiac arrhythmias led to restrictions being placed on the prescription of cisapride. (Reference: (AUSPRE) Australian Prescriber, 25, No.6, Dec 2002)
ARM		Cisapride has been voluntarily withdrawn because of the increased risk of cardiac arrhythmias in patients taking other medications or suffering from underlying conditions known to increase risk of cardiac arrhythmias. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
NZL		The Therapeutics section of the Ministry of Health, Wellington has severely restricted the use of cisapride in view of reports of cardiac arrhythmias associated with its use particularly in conjunction with erythromycin, clarithromycin, fluconazole, itraconazole or miconazole. (Reference: (NZLPU) Prescriber Update, No.14, , Feb 1997)

Product Name **Cisapride**

C.A.S. number **810968-60-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Clemastine**

C.A.S. number **15686-51-8**

Scientific and common names, and synonyms

PYRROLIDINE, 2-[[1-(4-CHLOROPHENYL)-1-PHENYLETHOXY]ETHYL]-1-METHYL-,[R-(R*,R*)]-

(+)-(2R)-2-[-[[(R)-P-CHLORO-ALPHA-METHYL-ALPHA-PHENYLBENZYL]OXY]ETHYL]-1-METHYLPYRROL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**1991**	Products containing clemastine were disallowed in children under one year of age, because of their possible association with sleep apnoea. (Reference: (GBRPHJ) The Pharmaceutical Journal, , , 24 Aug 1991) **WHO Comment : See WHO comment for H1-antihistamines.**

Product Name **Clioquinol (see also halogenated hydroxyquinoline derivatives)**

C.A.S. number **130-26-7**

Scientific and common names, and synonyms

5-CHLORO-7-IODOQUINOLINOL

5-CHLORO-7-IODO-8-QUINOLINOL

CHLOROIODOQUIN

CHINOFORM

IODOCHLORHYDROXYQUINOLINE

IODOCHLORHYDROXYQUIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Sep 1970**	The Ministry of Heath and Welfare prohibited the sale of clioquinol and broxyquinoline, and preparations containing them, following reports that clioquinol might be one of the causes of subacute myelo-optic neuropathy (SMON).
NOR	**Jan 1974**	Withdrawn from the market.
SWE	**Jun 1975**	Withdrawn by the manufacturer after mutual discussions due to neurological adverse reactions. It remains on the market for external use.
BEL	**1976**	Following cases of subacute myelo-optic neuropathy (SMON) in Japan, manufacturers of clioquinol in Belgium have limited the indications for use and duration of treatment. Since 1975 clioquinol has been available only on prescription.
DEU	**1 Jan 1977**	Preparations containing clioquinol intended for internal use have been placed under prescription control because of a propensity to cause neurological disorders.
DNK	**1978**	Products have been withdrawn from the market. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 1181, 1978)
FRA	**3 Nov 1978**	Clioquinol has been placed under Schedule A of the Poisonous Substances Regulations.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing clioquinol are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)

Product Name **Clioquinol (see also halogenated hydroxyquinoline derivatives)**

C.A.S. number **130-26-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NGA	**1982**	Importation, sale and manufacture of clioquinol and clioquinol-containing products for oral administration have been prohibited, because of evidence of neurological disorders, including SMON, associated with their use. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988)
BGD	**Jun 1982**	Banned as a single ingredient or in combination due to its implication in subacute myelo-optic neuropathy.
PHL	**Aug 1982**	This drug, used to treat infectious diarrhea, has been withdrawn from the domestic market due to reports of neurological disorders (SMON) associated with its use in Japan.
ITA	**1983**	Withdrawn from the market.
NPL	**1983**	All preparations containing this substance have been banned.
DOM	**Feb 1983**	Prohibited for use and/or sale after authorities were informed of the manufacturer's intent to gradually replace this ingredient in all preparations currently marketed worldwide.
ZWE	**Feb 1983**	Use of clioquinol is prohibited because of its propensity to cause neurological disorders. (Reference: (ZWDCC) Drugs Control Council, News Bulletin, 1, , 1983)
ESP	**29 Jul 1983**	The Ministry of Health and Consumer Protection has withdrawn approval for clioquinol. (Reference: (ESPMC) Programa Selectivo de Revisión de Medicamentos, (I), , Sep 1983)
ZMB	**7 Dec 1983**	Preparations of clioquinol for internal use may only be imported or exported on a licence issued by the Director of Medical Services. (Reference: (ZMBSI) Statutory Instrument, 166-167, , Dec 1983)
HKG	**1 Jan 1984**	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing clioquinol.
ETH	**7 Sep 1984**	Prohibited due to its association with sub-acute myelo-optic neuropathy.
HND	**24 Oct 1985**	The importation, manufacture and sale of products containing clioquinol have been prohibited having regard to the drug's potential to cause SMON. (Reference: (HNDSP) Circular, 10-85, , 1985)
OMN	**Mar 1987**	Import and marketing of oral and parenteral preparations containing clioquinol and related substances intended for the treatment of diarrhoea in children were prohibited. Topical preparations remain on the market. (Reference: (OMNCR) Circular, 11/87, , Mar 1987)
PAK	**1988**	Oral preparations containing clioquinol were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
GHA	**1 Sep 1989**	Products containing clioquinol have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
LIY	**21 May 1990**	The General People's Health Committee banned the use of clioquinol in children. (Reference: (LIYRL) Resolution of the General People's Health Committee, 141, , May 1990)
BHR		Preparations containing clioquinol have been withdrawn.
CHE		Oral preparations of clioquinol have been subjected to prescription control and the approved indications restricted to intestinal amoebiasis and diarrhoea caused by sensitive organisms following cases of subacute myelo-optic neuropathy (SMON) in Switzerland.

Product Name **Clioquinol (see also halogenated hydroxyquinoline derivatives)**

C.A.S. number **130-26-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CUB		Use restricted to treatment of parasitic infections.
NLD		Preparations containing clioquinol have been withdrawn from the market.
SAU		Following reports of subacute myelo-optic neuropathy (SMON) in patients treated with this drug, the Drug Committee has prohibited its import.
THA		The use of pharmaceutical preparations containing clioquinol is severely restricted.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Clioquinol, a halogenated hydroxyquinoline derivative, was introduced into medicine around 1900 as a topical antiseptic and in 1934 oral preparations for the treatment of amoebic dysentery and simple diarrhoea became available. By 1964 its use in Japan had been associated with cases of sub-acute myelo-optic neuropathy (SMON) which reached epidemic proportions resulting in its withdrawal there in 1970. Although relatively few cases of SMON were documented elsewhere, clioquinol was subsequently withdrawn from use in many countries and placed under prescription control in others. It was phased out worldwide by the major manufacturer between 1983 and 1985 on grounds of obsolescence. No adequately controlled evidence was ever generated to demonstrate that clioquinol is effective in bacterial or viral diarrhoea. However, products containing clioquinol and related halogenated hydroxyquinolines continue to be used in some tropical and subtropical countries where amoebiasis remains endemic. Other amoebocides are preferred in the WHO Model List of Essential Drugs. **(Reference: (WHODI) WHO Drug Information, 77.1, 9, 1977)**

Product Name **Clobenzorex**

C.A.S. number **13364-32-4**

Scientific and common names, and synonyms

(+)-N-(O-CHLOROBENZYL)-ALPHA-METHYLPHENETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS	**Aug 2000**	Removed from the market following a similar decision of the Agence Francaise de Securite Sanitaire des Produits de Sante in respect of appetite suppressants in September 1999. (Reference: (MUSCW) Communication to WHO, , , 27 Aug 2001)

Product Name **Clofenotane**

C.A.S. number **50-29-3A**

Scientific and common names, and synonyms

ALPHA,ALPHA-BIS(P-CHLOROPHENYL)-BETA,BETA,BETA-TRICHLORETHANE

CHLOROPHENOTHANE

DICHLORODIPHENYLTRICHLOROETHANE (USA)

DDT

ETHANE, 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL)

P,P'-DICHLORODIPHENYLTRICHLOROETHANE

TRICHLOROBIS(4-CHLOROPHENYL)ETHANE

Legislative or regulation action

Product Name **Clofenotane**

C.A.S. number **50-29-3A**

Scientific and common names, and synonyms

1,1,1-TRICLORO-2,2-BIS(4-CLORO-FENIL)-ETANO (ITA)
1,1,1-TRICHLORO-2,2-DI(4-CHLOROPHENYL)-ETHANE
1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHANE
1,1,1-TRICHLORO-2,2-BIS(4-CHLOROPHENYL)ETHANE
1,1,1-TRICHLOR-2,2-BIS(4-CHLOR-PHENYL)-AETHAN (DEU)
1,1,1-TRICHLOOR-2,2-BIS(4-CHLOOR FENYL)-ETHAAN (NLD)
2,2-BIS(P-CHLOROPHENYL)-1,1,1-TRICHLOROETHANE
4,4'-DICHLORODIPHENYLTRICHLOROETHANE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Jul 1972**	The Environmental Protection Agency has cancelled all DDT products, except the following list of uses: the U.S. Public Health Service and other health service officials for control of vector diseases; the USDA or military for health quarantine; in drugs, for controlling body lice. (To be dispensed only by a physician). These compounds have been found to pose carcinogenic risk to humans and to be toxic to the ecosystem. (Reference: (FEREAC) Federal Register, 37, 13369, 1972)
LKA	**1 Jan 1976**	DDT is banned for use as a pesticide. It was prohibited for crop use prior to 1970. It was phased out of vector control in 1976. No remaining uses allowed. The substance was banned on grounds of long persistant residues and bioaccumulation. (Reference: (LKAPFC) Meeting of the Pesticide Formulary Committee, , , 1988)
BLZ	**28 Dec 1985**	Severely restricted. Vector control for use only by public health officials. Residue persistency and bio-accumulation. (Reference: (EP1) UNEP/FAO - PIC Circular X - 12/1999, , ,)

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Product Name **Clofibrate**

C.A.S. number **637-07-0**

Scientific and common names, and synonyms

ETHYL CLOFIBRATE
ETHYL ALPHA-(4-CHLOROPHENOXY)-ALPHA-METHYLPROPIONATE
ETHYL 2-(P-CHLOROPHENOXY)ISOBUTYRATE
ETHYL 2-(PARA-CHLOROPHENOXY)-2-METHYLPROPIONATE
PROPANOIC ACID, 2-(P-CHLOROPHENOXY)-2-METHYL, ETHYL ESTER
PROPANOIC ACID, 2-(4-CHLOROPHENOXY)-2-METHYL, ETHYL ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1978**	Although withdrawn following reports of increased mortality associated with its use, clofibrate was subsequently reinstated for treatment of high-risk patients in whom diet, weight reduction, exercise and control of diabetes had failed to elicit adequate control.
DNK	**1979**	Indications for use have been restricted.

Product Name **Clofibrate**

C.A.S. number **637-07-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISR	**1979**	Withdrawn from the market following reports of increased mortality associated with use.
NOR	**1979**	Withdrawn from the market following reports of increased mortality associated with use.
FRA	**2 Feb 1979**	The indications have been restricted, as for every hypolipidaemic drug, to the treatment of endogenous hypercholesterolaemia and hypertriglyceridaemia a) when a suitable and assiduously followed diet has proved inadequate; and b) when cholesterolaemia is still raised after dieting and/or there are associated risk factors present. (Reference: (FRAPC) Press Communiqué, , , Feb 1979)
USA	**Aug 1979**	Indications are restricted to treatment of patients with hyperlipidaemia refractory to dietary measures. (Reference: (FDADB) FDA Drug Bulletin, 9(3), 14, 1979)
PHL	**1980**	Severely restricted in use to certain patients only. This compound has been shown to cause hepatic tumours in rodents. There is an increased risk of malignancy and cholelithiasis with use in humans. A warning statement is required to be placed on the labels of all products.
ITA	**1981**	Currently marketed in Italy with limited therapeutic indications (certain hyperproteinaemias with ascertained diagnoses; diabetic exudative retinopathy; xanthomes).
SWE	**Jan 1981**	Used only in cases of severe hyperlipoproteinaemia due to increased mortality connected with long-term treatment.
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this drug has been banned since it increases the incidence of gallstones and cholecystitis, drug-induced cardiac arrhythmias, cardiomegaly, angina, claudication and thromboembolic phenomena. It also enhances the effects and toxicity of other acidic drugs and it is implicated in the incidence of various tumours. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
CHL	**16 Dec 1982**	Indications are restricted to treatment of patients with high plasma lipid levels, resistant to dietary control. (Reference: (CHLRS) Resolution of the Minister of Health, 3261, , Dec 1982)
CHE		Indications are restricted to treatment of patients with hyperlipidaemia refractory to dietary measures. (Reference: (FDADB) FDA Drug Bulletin, 9(3), 14, 1979)
CUB		Indications are restricted to treatment of patients with hyperlipidaemia.
GBR		Indications are restricted to treatment of patients with hyperlipidaemia refractory to dietary measures. (Reference: (FDADB) FDA Drug Bulletin, 9(3), 14, 1979)
GRC		Indications are restricted to treatment of patients with severe hyperlipidaemia.
IND		Currently available on the market. Precautionary information is required to be given with this drug.
SAU		Severely restricted for use and/or sale.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Clofibrate, an antihyperlipidaemic agent, was introduced in 1967 and was subsequently extensively studied in the primary and secondary prevention of ischaemic heart disease. Following reports, published in 1978, of increased mortality among patients receiving clofibrate in a WHO-sponsored cooperative trial concerned with the primary prevention of ischaemic heart disease, the drug was withdrawn in some countries and its approved indications were severely restricted

Product Name **Clofibrate**

C.A.S. number **637-07-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		in many others. These restrictions have become the norm for more recently developed analogues of clofibrate. **(Reference: (WHODI) WHO Drug Information, 2, 6, 1979)**

Product Name **Cloforex**

C.A.S. number **14261-75-7**

Scientific and common names, and synonyms

CLOPHOREX

ETHYL(P-CHLORO-ALPHA,ALPHA-DIMETHYLPHENETHYL)-CARBAMATE

(P-CHLORO-ALPHA,ALPHA-DIMETHYLPHENETHYL)-CARBAMIC ACID

(2-(4-CHLOROPHENYL)-1,1-DIMETHYLETHYL)-CARBAMIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1969**	The Ministry of Health withdrew preparations containing aminorex, cloforex and chlorphentermine as a precautionary measure pending scientific evidence of a relationship between their use and the development of pulmonary hypertension.
SWE	**14 Feb 1969**	All antiobesity preparations containing cloforex were withdrawn from the market following several reports of pulmonary hypertension in patients treated with the related drug chlorphentermine in West Germany, and pre-existing knowledge of a relationship between pulmonary hypertension and the antiobesity drug aminorex.
VEN		Not approved for use and/or sale. **WHO Comment : Cloforex, a sympathomimetic phenethylamine derivative, was introduced over twenty years ago for the treatment of obesity. Concern that its use was associated with cases of pulmonary hypertension led to its withdrawal in several countries. WHO has no information to suggest that this drug remains commercially available.**

Product Name **Clometacin**

C.A.S. number **25803-14-9**

Scientific and common names, and synonyms

3-(P-CHLOROBENZOYL)-6-METHOXY-2-METHYLINDOLE-1-ACETIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**1990**	All preparations containing clometacin were withdrawn, having regard to severe cases of hepatitis associated with their use. (Reference: (FRARP) La Revue Prescrire, 10(95), 148, 1990) **WHO Comment : Clometacin, an analogue of indometacin, was introduced on the market in 1971. Subsequently several cases of severe - in some cases fatal - hepatitis were reported, which led in 1987 to the withdrawal of a high-dosage tablet formulation, while the indications for a lower dosage tablet were restricted and duration of the treatment was limited. Eventually all tablet formulations were removed from the market. Clometacin is not widely registered in other countries.**

Product Name **Clomethiazole**

C.A.S. number **533-45-9**

Scientific and common names, and synonyms

5-(2-CHLOROETHYL)-4-METHYLTHIAZOLE

CHLORETHIAZOLE

CHLORETHIAZOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Clomethiazole, which has sedative, anxiolytic and anticonvulsant activity, was introduced in 1960 for the treatment of acute alcohol withdrawal, delirium tremens, status epilepticus, eclamptic toxaemia, sleep disturbances in the elderly and agitation in psychogeriatic patients. It is also used as a sedative in certain anaesthetic procedures. There is little evidence of primary dependence in man but secondary dependence can occur in patients with a history of abuse of other substances, particularly alcohol. Dependence of this type has been reported as a result of inappropriate, long-term prescribing to outpatient alcoholics. Clomethiazole should not be prescribed to alcoholics who continue to drink. Adverse interactions with alcohol have been fatal. Although not controlled under the 1971 Convention on Psychotropic Substances, clomethiazole is subject to analogous controls in some countries.

Product Name **Clozapine**

C.A.S. number **5786-21-0**

Scientific and common names, and synonyms

5H-DIBENZO(B,E),(1,4)DIAZEPINE, 8-CHLORO-11-(4-METHYL-1-PIPERAZINYL)-

8-CHLORO-11-(4-METHYL-1-PIPERAZINYL)-5H-DIBENZO(B,E)(1,4)DIAZEPINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FIN	**1975**	Withdrawn from general use and restricted to named patients subject to permission of the competent authority.
SGP	**Aug 1977**	Importation prohibited.
DEU	**1978**	Clozapine, a tricyclic neuroleptic, was introduced in 1972 for the treatment of psychosis. In 1975 its use was associated with cases of agranulocytosis, particularly in Finland. These cases, which included several fatalities, resulted in the withdrawal of the drug in some countries. However, clozapine remains available in at least 30 countries, in some cases only on special request, for the treatment of severe psychotic disorders unresponsive to other neuroleptics provided that close monitoring of the blood count is feasible. In 1989, it was introduced in the United States for the treatment of severe schizophrenia. Lately, the use of clozapine in the United Kingdom has been associated with convulsions. (Reference: (WHODI) WHO Drug Information, 2, 10, 1977)
NOR	**1986**	Registration refused since the balance of safety and efficacy does not justify registration. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 2, 15, 1986)
ESP	**Oct 1993**	The Directorate General of Pharmacy and Health Products of the Ministry of Health and Consumer Affairs has restricted the use of the neuroleptic agent, clozapine (Leponex®: Sandoz) because incorrect use of this product could result in serious adverse reactions. The package will state that clozapine is subject to medical prescription and supervision and the outside container will bear the words ?SPECIAL MEDICAL CONTROL". The product information will also state immediately after the name "SPECIALITY SUBJECT TO SPECIAL MEDICAL CONTROL". Clozapine should be prescribed only by a psychiatrist, who must ensure at the onset that the patient's leukocyte count is within

Product Name **Clozapine**

C.A.S. number **5786-21-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		normal limits, and arrange for subsequent counts to be performed at weekly intervals for 18 weeks, and at monthly intervals thereafter for as long as treatment is continued. (Reference: (ESPCR) Circular, No. 10/93, ,)
GBR	**1 Jan 1994**	The manufacturer of the neuroleptic agent, clozapine (Clozaril) has modified® the instructions regarding dosage and administration. A section on drug interactions has been added, and the section on adverse effects has been expanded. (Reference: (GBRPHJ) The Pharmaceutical Journal, 252: 37, , 1994)
NZL	**May 1994**	Because of the risk of agranulocytosis, patients taking clozapine should have weekly blood count checks during the first 18 weeks of therapy and monthly thereafter. Patients taking clozapine and presenting with symptoms of infection should be checked immediately for neutropenia. (Reference: (NZLPU) Prescriber Update, No.5, , May 1994)
FRA	**Feb 1995**	The French Commission of Pharmacovigilance has agreed with the manufacturer of the antipsychotic agent, clozapine (Leponex®: Sandoz), to revise the product information to include detailed instructions on use and to warn against the risk of neutropenia, agranulocytosis and neurologic disorders. (Reference: (FRAAMC) Communiqué de Presse, , , 14 June 1995) **WHO Comment : Clozapine, a tricyclic neuroleptic, was introduced in 1972 for the treatment of psychosis. In 1975 its use was associated with cases of agranulocytosis, particularly in Finland. These cases, which included several fatalities, resulted in the withdrawal of the drug in some countries. However, clozapine remains available in at least 30 countries, in some cases only on special request, for the treatment of severe psychotic disorders unresponsive to other neuroleptics provided that close monitoring of the blood count is feasible. In 1989, it was introduced in the United States for the treatment of severe schizophrenia. Lately, the use of clozapine in the United Kingdom has been associated with convulsions.** **(Reference: (WHODIB) WHO Drug Information Bulletin, 2: 10, , 1977)**

Product Name **Cobalt (non-radioactive forms)**

C.A.S. number **7440-48-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Jul 1967**	Withdrawn from the market and prohibited for export (non-radioactive forms only) by the Food and Drug Administration due to the lack of evidence of effectiveness in treating iron-deficiency anemia and on the basis of toxic effects in humans including liver damage, claudication, myocardial damage, thyroid hyperplasia, hypothyroidism, dermatitis, nausea and anorexia. (Reference: (FEREAC) Federal Register, 32, 7945, 1967)
KWT	**26 Oct 1967**	Importation and marketing of preparations containing inorganic cobalt salts are prohibited. **WHO Comment : The World Health Organization has no information further to the above regarding preparations containing cobalt or to indicate that they are still commercially manufactured.**

Product Name **Codeine**

C.A.S. number **6095-47-8**

Legislative or regulation action

Product Name **Codeine**

C.A.S. number **6095-47-8**

Scientific and common names, and synonyms

6-HYDROXY-3-METHOXY-N-METHYL-4,5 EPOXYMORHIN-7-ENE

7,8-DIDEHYDRO-4,5-ALPHA-EPOXY-3-METHOXY-17-METHYLMORPHINAN-6-ALPHA-OL MONOHYDRATE

MORPHINAN-6-OL, 7,8-DIDEHYDRO-4,5-EPOXY-3-METHOXY-17-METHYL-,MONOHYDRATE,(5ALPHA,6ALPHA)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**Sep 1985**	Use of codeine in any dosage form has been banned due to liability for addiction and misuse.
MYS	**1 Jan 1996**	The Drug Control Authority has banned the import of all cough preparations containing codeine with effect on 1 January 1996 and all imported products have been recalled. Local manufacture of all combination products containing codeine with ephedrine or pseudoephedrine has also been banned and product registrations have been withdrawn. The products can be reformulated and new applications for registration submitted. The agency has not registered any new product containing codeine since 1992, when a decision was made to stop registration of new codeine-containing products. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 9(4): 2, , Dec 1995)
MUS	**Aug 2001**	All codeine based products have been moved to the prescription-only status, import of these products require authorization from the Ministry of Health, Importers and distributors are required to submit monthly returns of sales. (Reference: (MUSCW) Communication to WHO, , , 27 Aug 2001)
MYS	**31 Dec 2002**	The Drug Control Authority in Malaysia has announced that liquid codeine-containing preparations will not be available after 31 December 2002. This announcement follows its decision to cancel the registration of these products due to the growing problem of codeine misuse and abuse in Malaysia. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 19:5, , Aug 2002) **WHO Comment : Codeine, which has antitussive, opioid analgesic and antidiarrhoeal activity, was first extracted from opium in 1832 and has since been widely used in medicine. The development of dependence and its potential for abuse resulted in the control of the substance under Schedule II of the 1961 Single Convention on Narcotic Drugs. Preparations containing codeine remain widely available and are included in the WHO Model List of Essential Drugs.** **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Coumarin (synthetic)**

C.A.S. number **91-64-5**

Scientific and common names, and synonyms

2H-1-BENZOPYRAN-2-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**15 Aug 1996**	The Department of Health and Family Services cancelled the registration of 200 mg coumarin tablets (Lodema®) on the grounds that the safety and quality of the product are unacceptable, after reports of death in women who developed hepatotoxicity associated with its use. (Reference: (AUSTGA) Therapeutic Goods Administration, Department of Community Services and Health, , , 23 Aug 1996)
FRA	**Dec 1996**	The manufacturer, with the agreement of the Agence du Médicament, has decided to suspend the marketing authorization of coumarin (Lysedem®) because of its

Product Name **Coumarin (synthetic)**

C.A.S. number **91-64-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		unfavourable risk/benefit profile, and particularly because of several reports of hepatic adverse effects. (Reference: (FRAAMR) Rapid Alert - Pharmacovigilance, , , 23 Dec 1996)

Product Name **Cyclamates in drugs**

C.A.S. number **139-05-9**

Scientific and common names, and synonyms

CYCLOHEXANESULFAMIC ACID

SULFAMIC ACID, CYCLOHEXYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PER	**Oct 1969**	Banned in pharmaceuticals due to its carcinogenic effects in experimental animals.
PHL	**Jan 1971**	Cyclamic acid (or its salts) used as a sweetening agent in drugs has been withdrawn due to evidence of its carcinogenicity in animals.
PAN	**23 Nov 1971**	Cyclamates are no longer allowed in pharmaceutical preparations. (Reference: (PANMR) Ministry of Health Resolution, 534, , Nov 1971)
THA	**Dec 1974**	As pharmaceutical ingredients, cyclamate and its salts are restricted to dosages of 3.5 g/day in adults and 1.2 g/day in children.
BGD	**Jun 1982**	Use of cyclamate as a sweetening agent has been banned due to reported adverse effects.
GRC	**1986**	Registration not approved.
NGA	**1988**	Sodium cyclamate has been banned, because its use has been associated with carcinogenicity in experimental animals. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988) **WHO Comment : Cyclamates, non-nutritive sweetening agents, have been used as additives in food and drugs since 1950. They have been demonstrated to have a carcinogenic potential at very high and long-sustained dosage in experimental animals. Some countries have consequently banned their use as food additives, whereas in others they remain available for this purpose. Most countries, however, continue to allow their use in small quantities in pharmaceutical preparations.** **(Reference: (WHODI) WHO Drug Information, 77.2, 12, 1977)**

Product Name **Cyclandelate**

C.A.S. number **456-59-7**

Scientific and common names, and synonyms

3,3,5-TRIMETHYLCYCLOHEXYL MANDELATE

3,3,5-TRIMETHYLCYCLOHEXANOL ?-PHENYL-?-HYDROXYACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Dec 1996**	The Food and Drug Administration withdrew the marketing approval for the peripheral vasodilator cyclandelate on the grounds that this product has not been shown to be

Product Name **Cyclandelate**

C.A.S. number **456-59-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		effective for such use. (Reference: (FEREAC) Federal Register, 61(233) , p. 64099, 1996) **WHO Comment : Cyclandelate is a papaverine type spasmolytic and vasodilating drug intended for symptomatic treatment of various peripheral vascular disorders, such as intermittent claudication in arteriosclerosis obliterans as well as a treatment for cognitive dysfunction in patients suffering from senile dementia of the multi-infarct or Alzheimer's type. Cyclandelate remains registered in several countries.**

Product Name **Cyclopenthiazide**

C.A.S. number **742-20-1**

Scientific and common names, and synonyms

2H-1,2,4-BENZOTHIADIAZINE-7-SULFONAMIDE, 6-CHLORO-3-(CYCLOPENTYLMETHYL)-3,4-DIHYDRO-,1,1-DIOXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**Feb 1997**	The Therapeutics Section has restricted the indications for the thiazide diuretic, cyclopenthiazide, by deleting the indications for idiopathic hypercalciuria and oedema due to heart failure. (Reference: (NZLPU) Prescriber Update, No.14, , Feb 1997) **WHO Comment : Cyclopenthiazide, a thiazide diuretic, was introduced in 1968. It continues to be used mainly in combination drugs.**

Product Name **Cyproheptadine**

C.A.S. number **129-03-3**

Scientific and common names, and synonyms

PIPERIDINE,4-(5H-DIBENZO(A,D)CYCLOHEPTEN-5-YLIDENE)-1-METHYL-

PIPERIDINE, 4-(5H-DIBENZO[A,D]-CYCLOHEPTEN-5-YLIDENE)-1-METHYL-, HYDROCHLORIDE, SESQUIHYDRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GHA	**1979**	Sale and use of preparations containing cyproheptadine have been severely restricted due to abuse of its appetite stimulant effect.
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, cyproheptadine was banned following unacceptable promotion encouraging its use as an appetite stimulant. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
MYS	**Nov 1986**	All products containing cyproheptadine marketed as an appetite stimulant have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.4, , Nov 1986)
GBR	**Jan 1994**	The manufacturer of the antihistamine, cyproheptadine, has announced that it is no longer indicated as an appetite stimulant. The syrup formulation as the most often used in children will no longer be available in the United Kingdom. Use of the product as an antihistamine is not affected. (Reference: (GBRPHJ) The Pharmaceutical Journal, 252:136, , 1994)

Product Name **Cyproheptadine**

C.A.S. number **129-03-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Cyproheptadine, an antihistamine with anticholinergic and serotonin-antagonist properties, was introduced in 1961 for the symptomatic relief of allergy and was subsequently used as an appetite stimulant. In 1982 the drug was prohibited in Bangladesh because of its misuse as an appetite stimulant due to inappropriate promotion. Cyproheptadine remains widely available and the current marketing policy of the major manufacturer requires that it should be used as an appetite stimulant only under the supervision of a physician who should be assured that adequate food is available.

Product Name **Cyproterone acetate**

C.A.S. number **2098-66-0**

Scientific and common names, and synonyms

3'H-CYCLOPROPA[1,2]PREGNA-1,4,6-TRIENE-3,20-DIONE, 17-(ACETYLOXY)-6-CHLORO-1,2-DIHYDRO-, (1?,2?)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Feb 1995**	The Committee on Safety of Medicines decided that in view of the hepatoxicity associated with long-term daily use of cyproterone in prostatic cancer, it should be restricted to short courses to cover flare associated with testosterone agonists, to treatment of hot flushes after orchidectomy or LHRH agonists and to patients who have not responded to, or are intolerant of other treatments. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, vol.21, , Feb 1995) **WHO Comment : Cyproterone was introduced in the late sixties. It is an orally-active anti-androgen with competitive inhibitory effects on androgen-sensitive target organs. It also has anti-gonadotropic and progestative properties. In 1995 the drug was found to have a hepatotoxic effect.**

Product Name **Dalkon shield**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1974**	The Dalkon shield has not been marketed since 1974, when the manufacturer withdrew the product from distribution following reports of mid-trimester septic abortions. In September 1980 the manufacturer issued a letter to all doctors recommending removal of all Dalkon shields due to an increased risk of pelvic inflammatory disease caused by actinomyces israeli. The Food and Drug Administration has recently stated that due to an increased risk of pelvic inflammatory disease, the Dalkon shield intrauterine device should be removed from any woman still using one. Women using the Dalkon shield were shown to have a fivefold increased risk of pelvic inflammatory disease compared with women using other types of IUD. (Reference: (FDADB) FDA Drug Bulletin, 13(2), , 1983)
GBR	**1985**	The manufacturer of the device has written to all doctors reminding them that women still wearing the Dalkon shield should have the device removed. Marketing was discontinued in 1975 and a similar letter was distributed in 1980.
NZL	**1985**	The New Zealand Health Authorities have instituted a programme to ensure that all women still wearing a Dalkon shield IUD have their device removed.

Product Name **Dalkon shield**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (NZCSL) Clinical Services Letter, Department of Health, 234, , July 1985)

Product Name **Danazol**

C.A.S. number **2004-0-0004**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**10 Sep 2003**	The use of danazol (Danol) has been restricted to second-line therapy in endometriosis and benign fibrocystic breast disease, as a result of safety and risk-benefit assessments suggesting that it may increase the baseline risk of ovarian cancer in patients being treated for endometriosis. (Reference: (GBRMI) News and updates, , , 10 Sep 2003)

Product Name **Dantron**

C.A.S. number **117-10-2**

Scientific and common names, and synonyms

9,10-ANTHRACENEDIONE,1,8-DIHYDROXY,1,8-DIHYDROXYANTHRAQUINONE

9,10-ANTHRACENEDIONE,1,8-DIHYDROXY-

ANTRAPUROL

CHRYSAZIN

DIANTHON

DANTHRON

1,8-DIHYDROXYANTHRAQUINONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1987**	The major manufacturer has discontinued production of products containing dantron. All other manufacturers in Norway have subsequently withdrawn such preparations. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 3(6), , 1987)
DEU	**31 Jan 1987**	The Federal Health Office no longer permits the use of dantron in pharmaceutical preparations.
JPN	**Feb 1987**	The Ministry of Health and Welfare has requested manufacturers to discontinue production and marketing of laxatives containing dantron.
USA	**30 Mar 1987**	The United States Food and Drug Administration advised manufacturers to discontinue production of laxatives containing dantron and to recall all such products from retail stores.
GBR	**Apr 1987**	The Committee on Safety of Medicines advised that the licensed indications for those products containing dantron that remain on the market should be limited to: (1) constipation in geriatric practice and analgesic-induced constipation in the terminally ill and (2) constipation in cardiac failure and coronary thrombosis (conditions in which defaecation must be free of strain). The Committee also advised that these products should be subjected to prescription control as quickly as possible.
SGP	**15 Jan 1988**	The Ministry of Health has prohibited the import and sale of dantron on the basis of potential carcinogenicity.

Product Name **Dantron**

C.A.S. number **117-10-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (SGPRD) The Sale of Drugs (Prohibited Drugs) Regulations, S9, 7, Jan 1988)
CAN	**Nov 1997**	After reviewing the benefits and risks associated with the use of dantron-containing stimulant laxatives, Health Canada has concluded that dantron is a genotoxic animal carcinogen and that the risks of using these products outweigh the therapeutic benefits. Dantron is a synthetic anthraquinone and, although there is no direct evidence that it has caused cancer in humans, it may have a carcinogenic potential. Manufacturers have voluntarily ceased sale of their products. (Reference: (CANPR) Press Release, 1997-64, , 25 Nov 1997)
CAN	**25 Nov 1997**	After reviewing the benefits and risks associated with the use of dantron-containing stimulant laxatives, Health Canada has concluded that dantron is a genotoxic animal carcinogen and that the risks of using these products outweigh the therapeutic benefits. Dantron is a sythetic anthraquinone and, although there is no direct evidence that it has caused cancer in humans, it may have a carcinogenic potential. Manufacturers have voluntarily ceased sale of their products. (Reference: (CANPR) Press Release, 1997-64, , 25 Nov 1997)
GBR	**May 2000**	The Medicines Control Agency has severely restricted the use of the laxative, dantron following studies showing genotoxicity. It is now restricted to use in terminally ill adult patients only. (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000) **WHO Comment : Dantron, an anthroquinone derivative, has been available for over twenty years and is widely used as a laxative. The results of two chronic toxicity studies in rodents, published in 1985 and 1986, have shown that administration of high doses is associated with the development of intestinal and liver tumours.**

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Product Name **Depot medroxyprogesterone acetate (DMPA)**

C.A.S. number **71-58-9**

Scientific and common names, and synonyms

DMPA

PREGN-4-ENE,3,20-DIONE, 17-(ACETYLOXY)-6-METHYL-,(6ALPHA)

17-HYDROXY-6ALPHA-METHYLPREGN-4-ENE-3,20-DIONE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1983**	The use of injectable steroid preparations for contraceptive purposes has been restricted to use by women with a normal menstrual cycle who do not tolerate other forms of contraception. Pregnancy must be excluded before treatment is started and it is contraindicated during lactation. The label must bear a warning about adverse effects including menstrual disturbances and headaches.
GBR	**1983**	Approved for long-term contraception when other methods are unacceptable or inappropriate.
SWE	**1983**	Approved for long-term contraception when other methods have given rise to adverse reactions or otherwise been judged as inappropriate. Patients must accept that after conclusion of treatment return of fertility may be slow.
ZMB	**7 Dec 1983**	The use of medroxyprogesterone acetate in injectable form as a contraceptive is

Product Name **Depot medroxyprogesterone acetate (DMPA)**

C.A.S. number **71-58-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		prohibited. The drug may only be imported or exported on a licence issued by the Director of Medical Services. (Reference: (ZMBSI) Statutory Instrument, No.166-167, , Dec 1983)
EGY	**1984**	Use of this drug was restricted to contraception in women with a normal menstrual cycle who do not tolerate other forms of contraception.
USA	**1984**	Approval for this product was not granted on the grounds that the available evidence did not provide a sufficient basis for determining that depot medroxyprogesterone acetate is safe for general marketing in the USA. However, multinational studies subsequently indicated that the risk of cancer associated with its use was minimal or absent and the drug was registered in 1992. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, , , 29 Oct 1992) (Reference: (FEREAC) Federal Register, 49, 43507, Oct 1984) **WHO Comment : A depot preparation containing 150 mg medroxyprogesterone acetate was introduced over 20 years ago for use as a long-acting injectable contraceptive. Subsequently, positive results of carcinogenicity studies carried out in beagle bitches led to refusal of registration in the United States. These findings were later considered irrelevant to contraceptive use in women and the drug was approved by the Food and Drug Administration. Menstrual irregularities are the most common adverse effect associated with depot medroxyprogesterone acetate. Risk-benefit judgements differ significantly from country to country, having regard to differing national circumstances. The preparation is, however, widely available and is included in the WHO Model List of Essential Drugs.** **(Reference: (WHTAC4) The Use of Essential Drugs, 4th Report of the WHO Expert Committee, 796, , 1990)** **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)** **(Reference: (WHODI) WHO Drug Information, 2(1), 31, 1988)**

Product Name **Dequalinium**

C.A.S. number **6707-58-0**

Scientific and common names, and synonyms

DECAMINIUM

DECALINIUM CHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGR	**Aug 1998**	The Bulgarian Drug Agency in the Ministry of Health withdrew the vaginal tablet of dequalinium (Efisol) because of serious adverse reactions reported in the country. (Reference: (BGRBDA) Communication to WHO, , ,)

Product Name **Dequalinium chloride**

C.A.S. number **522-51-0**

Scientific and common names, and synonyms

1,1'-DECAMETHYLENEBIS (4-AMINOQUINALDINIUM CHLORIDE)

Legislative or regulative action

Product Name **Dequalinium chloride**

C.A.S. number **522-51-0**

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1984**	Withdrawn from the market due to an unacceptable benefit to risk ratio (low efficacy/skin reactions). **WHO Comment : Skin reactions to dequalinium chloride, including necrotic lesions, have been reported. It remains available as a mouth and throat disinfectant in many countries.**

Product Name **Dexamfetamine**

C.A.S. number **51-64-9**

Scientific and common names, and synonyms

BENZENEETHANAMINE, ALPHA-METHYL-,(S)-

DEXTROAMPHETAMINE

DEXAMPHETAMINE

(+)-ALPHA-METHYLPHENETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1973**	Anorectic drugs containing dexamfetamine were withdrawn from the market by the Food and Drug Administration due to evidence of abuse and a high risk of dependence.
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
OMN	**10 May 1982**	Import and marketing of products containing dexamfetamine were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
NGA	**1988**	All products containing dexamfetamine have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988) **WHO Comment : Dexamfetamine, an amfetamine derivative, is controlled under Schedule II of the 1971 Convention on Psychotropic Substances. See WHO comment for amfetamine.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Dexfenfluramine**

C.A.S. number **3239-44-9**

Scientific and common names, and synonyms

(S)-N-ETHYL-ALPHA-METHYL-3-(TRIFLUOROMETHYL)BENZENEETHANAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BRA	**Aug 2001**	Registration has been cancelled due to risks of heart valve disorders. (Reference: (BRARES) Resolucao n., 147/ANVISA, , 14 Aug 2001)

Product Name **Dexfenfluramine hydrochloride**

C.A.S. number **3239-45-0**

Scientific and common names, and synonyms

(S)-N-ETHYL-A-METHYL-3-TRIFLURO ROMETHYLPHENETHYLAMINE HYDROCHLORIDE

Legislative or regulation action

Product Name **Dexfenfluramine hydrochloride**

C.A.S. number **3239-45-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MAR	**Sep 1997**	The manufacturer of dexfenfluramine removed the product dexfenfluramine from the market because of the risk of rare, but potentially fatal pulmonary artery hypertension. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
PHL	**Sep 1998**	The Department of Health Bureau of Food and Drugs has noted the voluntary withdrawal by the sponsoring company of the anorectic drugs fenfluramine and dexfenfluramine. (Reference: (PHLCTW) Communication to WHO, , , 15 Aug 2000)
LTH	**May 2000**	The State medicines Control Agency has withdrawn for the market capsules of dexfenfluramine for reasons of safety. (Reference: (LTHMCA) Order of State Medicines Control Agency, No. 8, , 10 Jan 2000)

Product Name **Dextromethorphan**

C.A.S. number **125-71-3**

Scientific and common names, and synonyms

(9ALPHA,13ALPHA,14ALPHA)-3-METHOXY-17-METHYLMORPHINAN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**Jun 2001**	All preparations containing dextramethorphan, either alone or in combination, have been classified as controlled non-psychotropic drugs. This action was taken to ensure that the drug is not misused, in view of a huge increase in its consumption in the form of cough preparations etc. (Reference: (OMNCR) Circular, 22/2001, , 22 July 2002)

Product Name **Dibenzepin hydrochloride**

C.A.S. number **315-80-0**

Scientific and common names, and synonyms

11H-DIBENZO(B,E)(1,4)-DIAZEPIN-11-ONE, 10-(2-DIMETHYLAMINO)-ETHYL)-5, 10-DIHYDRO-5-METHYL-, MONOHYDROCHLORIDE

10-(2-DIMETHYLAMINO)ETHYL)-5,10-DIHYDRO-5-METHYL-11H-DIBENZO(B,E),(1,4)-DIAZEPIN-11-ONE MONOHYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Jan 1983**	Dibenzepin hydrochloride was associated with an unexpectedly high number of fatal suicidal attempts. The drug was withdrawn following discussions between the company and the National Board of Health and Welfare. **WHO Comment : Dibenzepin hydrochloride, a tricyclic antidepressant, was introduced in 1968 for the treatment of depressive illness. By 1973 its use in Sweden had been associated with an unexpectedly high number of suicide attempts which led to its withdrawal in that country. Although its use has lapsed in several countries, it remains available in at least eight European countries.**

Product Name **Diclofenac sodium**

C.A.S. number **15307-79-6**

Legislative or regulation action

Product Name **Diclofenac sodium**

C.A.S. number **15307-79-6**

Scientific and common names, and synonyms

ACETIC ACID, O-(2,6-DICHLOROANILINO)PHENYL)-, MONOSODIUM SALT

BENZENEACETIC ACID, 2-((2,6-DICHLOROPHENYL)AMINO)-, MONOSODIUM SALT

SODIUM (O-(2,6-DICHLOROANILINO)PHENYL) ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Sep 1983**	Disapproved for use due to fear of exposure of young children to risks of agranulocytosis, leucopenia and thrombocytopenia.
NOR	**1987**	Diclofenac acid is not approved for registration because the results of carcinogenicity testing in rats were not clearly negative and testing in another species is required. **WHO Comment : The World Health Organization currently has no information to suggest that diclofenac is less safe than other widely available non-steroidal antiinflammatory substances of this type, or that children are particularly liable to react adversely. It is registered in many countries in several dosage forms, including a 12.5 mg suppository indicated for juvenile arthritis.**

Product Name **Dicycloverine**

C.A.S. number **77-19-0**

Scientific and common names, and synonyms

DICYCLOMINE

(BICYCLOHEXYL)-1-CARBOXYLIC ACID, 2-(DIETHYLAMINO)ETHYL ESTER

2-(DIETHYLAMINO)ETHYL (BICYCLOHEXYL)-1-CARBOXYLATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1985**	The Swedish Board of Drugs has recommended that dicycloverine be used only by specialists for the treatment of very severe cases of infantile colic. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, No.6, , Oct 1985)
AUS	**20 Feb 1985**	The manufacturer has warned against administration of dicycloverine to infants under six months of age and deleted colic from the indications.
NZL	**18 Mar 1986**	The Department of Health has issued a statement that liquid dicycloverine preparations for the treatment of colic are no longer recommended for infants under six months of age. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 242, , 1986)
BGD	**Dec 1986**	Syrup and drop forms are being withdrawn to avoid possible misuse and adverse reactions in children.
GBR		The manufacturer has warned against administration of dicycloverine to infants under six months of age and deleted colic from the indications.
NOR		In view of its propensity to cause serious adverse reactions in infants under six months of age, the Drug Control Board has prohibited the import of dicycloverine. **WHO Comment : Dicycloverine, an anticholinergic agent with antispasmodic and local anaesthetic activity, was introduced in 1952 for treatment of functional conditions involving smooth muscle of the gastrointestinal tract. Its use in the treatment of colic in infants under six months of age has been associated with irritability and restlessness, convulsions and apnoea which has led the major manufacturer to issue revised global prescribing information in 1985 contraindicating the use of dicycloverine in this age group. Subsequently restrictive regulatory action directed to other available brands of this drug was**

Product Name **Dicycloverine**

C.A.S. number **77-19-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		taken in several countries. Preparations containing dicycloverine remain available in at least ten major markets.

Product Name **Dienestrol**

C.A.S. number **84-17-3**

Scientific and common names, and synonyms

DINOVEX

DIENOL

PHENOL, 4,4'-(DIETHYLIDENEETHYLENE)DI-

4,4'-(1,2-DIETHYLIDENE-1,2-ETHANEDIYL)BIS-PHENOL,(E,E)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	**Feb 1977**	Pharmaceutical specialities containing dienestrol, diethylstilbestrol, hexestrol and their derivatives have been withdrawn following reports indicating an association between prenatal exposure to diethylstilbestrol and the subsequent development of adenocarcinoma in post pubertal girls and young women. The use of stilbene derivatives is only authorized for the treatment of cancer of the prostate.
ITA	**1979**	Withdrawn from the market due to suspected carcinogenicity in newborns following prenatal exposure.
KWT	**Apr 1980**	Prohibited for import.
SAU		Following reports indicating the development of adenocarcinoma in post-pubertal girls and young women exposed prenatally to preparations containing diethylstilbestrol, dienestrol and their derivatives, the Drug Committee prohibited the use of these products during pregnancy.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Dienestrol is a stilbene derivative. See WHO comment for diethylstilbestrol. Vaginal forms of dienestrol, which were introduced in 1947, are currently available in over 35 countries for the management of hypoestrogenic vaginal atrophy. **(Reference: (WHODI) WHO Drug Information, 77.1, 16, 1977)**

Product Name **Diethylaminoethoxyhexestrol**

C.A.S. number **2691-45-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Dec 1970**	This product for the treatment of angina pectoris was voluntarily withdrawn from production by the manufacturer due its effects on the liver.
		WHO Comment : The World Health Organization has no information further to the above regarding preparations containing diethylaminoethoxyhexestrol, a coronary vasodilator, or to indicate that they are still commercially manufactured.

Product Name **Diethylstilbestrol**

Legislative or regulation action

C.A.S. number **56-53-1**

Scientific and common names, and synonyms

ALPHA,ALPHA'-DIETHYL-(E)-4,4'-STILBENEDIOL

DIETHYLSTILBOESTROL

PHENOL, 4,4-'(1,2-DIETHYL-1,2-ETHENEDIYL)BIS-,(E)-

STILBOESTROL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PAN	**15 Jul 1973**	Sale and use of diethylstilbestrol or its derivatives in subcutaneous implants is prohibited. (Reference: (PANMR) Ministry of Health Resolution, No.1A, , Jan 1973)
USA	**4 Aug 1975**	Because of a statistically significant association between maternal ingestion during pregnancy of diethylstilbestrol (and close congeners) and the occurrence of vaginal carcinoma in the offspring, the labelling of all such products has previously been required to state that their use in pregnancy is contraindicated. An additional warning is now required concerning the possible development of vaginal adenosis in postpubertal girls whose mothers received diethylstilbestrol during pregnancy. (Reference: (FEREAC) Federal Register, 40, 32773, Aug 1975)
AUT	**Feb 1977**	Pharmaceutical specialities containing diethylstilbestrol, dienestrol, hexestrol and their derivatives have been withdrawn following reports indicating an association between prenatal exposure to diethylstilbestrol and the subsequent development of adenocarcinoma in postpubertal girls and young women. The use of stilbene derivatives is only authorized for the treatment of cancer of the prostate.
DEU	**Feb 1977**	Indications for use restricted to the treatment of carcinoma of the prostate.
GRC	**1980**	Diethylstilbestrol is registered solely for the treatment of cancer of the prostate.
KWT	**Jan 1980**	Importation of pharmaceutical preparations containing diethylstilbestrol and diethylstilbestrol diphosphate is prohibited.
TUN	**May 1983**	Prohibited for pregnancy-related uses in women; restricted to urological use only.
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy.
SAU		Following reports indicating the development of adenocarcinoma in post-pubertal girls and young women exposed prenatally to preparations containing diethylstilbestrol, dienestrol and their derivatives, the Drug Committee prohibited the use of these products during pregnancy. **WHO Comment : Diethylstilbestrol, a synthetic estrogen which is a stilbene derivative, was introduced into obstetric practice in the late 1940s and subsequently widely used for the treatment of threatened abortion. This use was later shown to be associated with an increased risk of vaginal cancer in the offspring which resulted in restrictive regulatory action in several countries. Diethylstilbestrol and other stilbenes remain available in many countries, however, for the treatment of certain hormone-dependent neoplasms including carcinoma of the prostate and postmenopausal breast cancer.** **(Reference: (WHODI) WHO Drug Information, 77.1, 16, 1977)**

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Product Name **Difemerine**

C.A.S. number **80387-96-8**

Scientific and common names, and synonyms

2-(DIMETHYLAMINO)-1,1-DIMETHYLETHYL BENZILATE

Legislative or regulation action

Product Name **Difemerine**

C.A.S. number **80387-96-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	Mar 1986	Oral preparations of difemerine were withdrawn by the manufacturer on the grounds of exceptionally frequent adverse effects.

Product Name **Difenoxin**

C.A.S. number **28782-42-5**

Scientific and common names, and synonyms

DIFENOXYLIC ACID

1-(3-CYANO-3,3-DIPHENYLPROPYL)-4-PHENYL-ISONIPECOTIC ACID

4-PIPERIDINECARBOXYLIC ACID, 1-(3-CYANO-3,3-DIPHENYLPROPYL)-4-PHENYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PAK	Jun 1990	Drop and syrup formulations of products containing difenoxin intended for the treatment of diarrhoea in children were banned.
OMN	Sep 1990	Import and marketing of oral preparations intended for paediatric use containing difenoxin were prohibited. (Reference: (OMNMH) Ministry of Health, , , 29 Sep 1990)
KOR	May 1991	Antidiarrhoeal products containing difenoxin were not accepted for registration. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991)
LBN	Aug 1991	Use of products containing difenoxin in children under 5 years of age was discontinued and preparations for paediateic use were withdrawn. (Reference: (LBNMHD) Ministry of Health and Social Affairs Decree, 150/1, , Aug 1991)
		WHO Comment : Difenoxin is the principal metabolite of diphenoxylate. See WHO comment for diphenoxylate.

Product Name **Difurazone**

C.A.S. number **804-36-4**

Scientific and common names, and synonyms

1,3-BIS(5-NITROFURFURYLIDEN)ACETONEGUANYLHYDRAZONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	Jul 1977	Withdrawn from all marketed preparations on the grounds that it has been superseded by safer and more effective preparations.
SAU		The withdrawal of nitrofuran compounds is under consideration since they have been superseded by safer and more effective preparations.
VEN		Not approved for use and/or sale.
		WHO Comment : Difurazone, a nitrofuran derivative, was formerly used as an antiinfective agent. It has, however, been superseded by safer compounds and WHO has no information to suggest that it remains commercially available.

Product Name **Dihydrostreptomycin**

Legislative or regulation action

C.A.S. number **128-46-1**

Scientific and common names, and synonyms

DST

DHSM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1970**	Withdrawn from the market (injectable form) and prohibited for export by the Food and Drug Administration on the grounds of an unfavourable benefit/risk ratio. This antibiotic is considered unsafe due to its ototoxic hazards.
PHL	**1972**	Dihydrostreptomycin and its salts, singly or in combination, were withdrawn from sale for human use. The drug can cause severe vestibular damage.
ESP	**1 Oct 1983**	The Ministry of Health and Consumer Protection has withdrawn approval for dihydrostreptomycin except in oral preparations. (Reference: (ESPMC) Programa Selectivo de Revisión de Medicamentos, , , Sep 1983)
DOM		Prohibited for use and/or sale since scientific studies have shown that it can cause deafness.
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy.
PER		Prohibited for use in its injectable form. It has been found to cause permanent deafness.
		WHO Comment : Dihydrostreptomycin, a derivative of the aminoglycoside antibiotic streptomycin with similar antibacterial activity, was first synthesized in 1947 and subsequently used in the treatment of tuberculosis and gram-negative infections. Preparations for systemic use have been widely withdrawn as a result of concern regarding their severe ototoxicity. Dihydrostreptomycin is poorly absorbed from the gastrointestinal tract. It remains available in oral preparations in some countries.

Product Name **Dihydroxymethylfuratrizine**

C.A.S. number **794-93-4**

Scientific and common names, and synonyms

BIS(HYDROXYMETHYL)FURATRIZINE

(((6-2(5-NITRO-2-FURYL)VINYL)-AS-TRIAZIN-3-YL)IMIDO)DI-METHANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Withdrawn from all marketed preparations on the grounds that it has been superseded by safer and more effective preparations.
SAU		The withdrawal of nitrofuran compounds is under consideration since they have been superseded by safer and more effective preparations.
VEN		Not approved for use and/or sale.
		WHO Comment : Dihydroxymethylfuratrizine, a nitrofuran derivative, was formerly used as an antiinfective agent. It has, however, been superseded by safer compounds and WHO has no information to suggest that it remains commercially available.

Product Name **Dilevalol**

C.A.S. number **75659-07-3**

Scientific and common names, and synonyms

BENZAMIDE,2-HYDROXY-5-[1-HYDROXY-2-[(1-METHYL-3-PHENYLPROPYL)AMINO]ETHYL]-,[R-(R*,R*]-

Legislative or regulation action

Product Name **Dilevalol**

C.A.S. number **75659-07-3**

Scientific and common names, and synonyms

(-)-5-[(1R)-1-HYDROXY-2-[[(1R)-1-METHYL-3-PHENYLPROPYL]AMINO]ETHYL] SALICYLAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	9 Aug 1990	Products containing dilevalol hydrochloride have been voluntarily discontinued by the manufacturer, haveing regard to evolving evidence of isolated cases of liver toxicity. (Reference: (SPCNR) Schering-Plough Corporation news release, , , 09 Aug 1990) **WHO Comment : Dilevalol, a beta-adrenoreceptor antagonist, was introduced into medicine in 1989 for the treatment of hypertension. Shortly afterwards, its use became associated with isolated cases of hepatic toxicity. Although few cases were reported, the manufacturer discontinued sales in Japan and Portugal, the only countries where the drug was marketed, and withdrew applications for registration elsewhere.**

Product Name **Dimazole**

C.A.S. number **95-27-2**

Scientific and common names, and synonyms

AMYCAZOL

BENZOTHIAZOL,6-(2-DIETHYLAMINOETHOXY)-2-DIMETHYLAMINO-

DIAMTHAZOLE DIHYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	Jul 1977	Withdrawn from the market and prohibited for export by the Food and Drug Administration on the grounds that the drug was not shown to be safe for its indicated uses. Neurotoxic effects had been found in humans. Products containing this ingredient had been used for the prophylaxis and treatment of athletes' foot. (Reference: (FEREAC) Federal Register, 42, 37057, July 1977) **WHO Comment : Dimazole, an antifungal agent, was introduced in 1951 for the treatment of tinea infections. Although the major manufacturer subsequently discontinued marketing preparations in the United States, the US Food and Drug Administration formally withdrew marketing approval for such preparations in 1977 on the grounds of their association with severe neurotoxic reactions, their potential for misuse and the availability of safer alternative products. Topical preparations of dimazole remain available in some 40 countries.**

Product Name **Dinoprostone**

C.A.S. number **363-24-6**

Scientific and common names, and synonyms

PROSTAGLANDIN E2

PROSTA-5,13-DIEN-1-OIC ACID,11,15-DIHYDROXY-9-OXO-,(5Z,11ALPHA,13E,15S)-

(E,Z)-(1R,2R,3R)-7-[3-HYDROXY-2-[(3S)-(3-HYDROXY-1-OCTENYL)]-5-OXOCYCLOPENTYL]-5-HEPTENOIC ACID

(5Z, 11ALPHA, 13E, 15S)-11, 15-DIHYROXY-9-OXOPROSTA-5, 13-DIEN-1-OIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Dinoprostone**

C.A.S. number **363-24-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**19 Jul 1990**	In consultation with the Department of Health, a controlled-release pessary containing dinoprostone has been withdrawn by the manufacturer, having regard to reports of an unacceptable incidence of uterine hypertonia and foetal distress. (Reference: (CRDDL) Communication from Roussel enclosing "Dear Doctor" letter, , , 19 July 1990)
THA	**Apr 2001**	Severely restricted for use as a prescription drug in hospitals only. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001) **WHO Comment : Dinoprostone, prostaglandin E2, was introduced into medicine in 1971 and is primarily used for cervical ripening during the induction of labour. It is available in various formulations for oral, parenteral and vaginal administration. Tablets, ampoules and vaginal dosage forms (tablets, pessaries, gel) remain registered in many countries.**

Product Name **Dionaea muscipula (extract)**

Scientific and common names, and synonyms

VENUS FLY TRAP

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jan 1986**	The Federal Health Office has suspended the sale of an injectable herbal anticancer drug prepared from the carnivorous plant Dionaea muscipula following hypersensitivity reactions in almost two-thirds of patients. **WHO Comment : The World Health Organization has no information further to the above regarding preparations containing Dionaea muscipula or to indicate that they are still commercially manufactured.**

Product Name **Diphenazine**

C.A.S. number **13838-14-7**

Scientific and common names, and synonyms

1,4-BIS(ALPHA-METHYLPHENETHYL)PIPERAZINE

1,4-BIS(1-PHENYLISOPROPYL)PIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
HUN	**1967**	Withdrawn from the market on account of photosensitivity, and possibly cataract, associated with its use.
VEN		Not approved for use and/or sale. **WHO Comment : The World Health Organization has no further information regarding preparations containing diphenazine and is not aware that they are still commercially manufactured.**

Product Name **Diphenoxylate**

C.A.S. number **915-30-0**

Scientific and common names, and synonyms

DIPHENOXYLATI HYDROCHLORIDIUM

ETHYL 1-(3-CYANO-3,3-DIPHENYLPROPY-4-PHENYLISONIPECOTATE

R-1132

4-PIPERIDINECARBOXYLIC ACID, 1-(3-CYANO-3,3-DIPHENYLPROPYL)-4-PHENLY,-ETHYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
LIY	**21 May 1990**	Use of products containing diphenoxylate in children was banned. (Reference: (LIYRL) Resolution of the General People's Health Committee, 141, , May 1990)
PAK	**Jun 1990**	Drop and syrup formulations of products containing diphenoxylate intended for the treatment of diarrhoea in children were banned.
MEX	**Dec 1990**	Elixir formulations of products containing diphenoxylate intended for the treatment of diarrhoea in children were withdrawn. (Reference: (MEXMH) Communication from the Ministry of Health, , , 28 Nov 1990)
NPL	**1991**	Liquid formulations of products containing diphenoxylate either alone or in combination, and intended forthe treatment of diarrhoea in children, were banned (Reference: (NPLDDA) Communication from the Department of Drug Administration, , , 27 Feb 1992)
PHL	**1991**	Paediatric formulations of products containing diphenoxylate were withdrawn.
KOR	**May 1991**	Antidiarrhoeal products containing diphenoxylate were not accepted for registration. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991)
LBN	**03 Aug 1991**	Use of products containing diphenoxylate in children under 5 years of age was discontinued and preparations for paediatric use were withdrawn. (Reference: (LBNMHD) Ministry of Health and Social Affairs Decree, 150/1, , Aug 1991)
THA	**27 May 1992**	The Ministry of Public Health, withdrew the registration of products containing diphenoxylate formulated as either syrup or drop formulation. (Reference: (THAMH) Ministry of Public Health, , , 27 May 1992)
BHR	**2000**	The Ministry of Health has restricted the prescription of medicines containing diphenoxylate as controlled medicines that should be dispensed only on special prescriptions issued by the Directorate of Pharmacy and Drug Control at the Ministry of Health with effect from 2 May 2000. (Reference: (BHRCW) Communication with WHO, , , 27 June 2000) **WHO Comment : Diphenoxylate, a derivative of pethidine without analgesic activity, is used in the symptomatic treatment of acute and chronic diarrhoea to reduce intestinal motility. There is no clear evidence that it has any beneficial effect in diminishing fluid losses and it has been associated with central nervous system toxicity, particularly in children, which results in anorexia, nausea and vomiting, headache, drowsiness, confusion, insomnia, dizziness, restlessness, euphoria and depression. The World Health Organization recommends that diphenoxylate should not be used for the management of diarrhoea in children and many countries have since withdrawn products containing this compound indicated for paediatric use.** **(Reference: (WHORUD) The Rational Use of Drugs, , , 1990)**

Product Name **Dithiazanine iodide**

C.A.S. number **514-73-8**

Scientific and common names, and synonyms

3-ETHYL-2-(5-(3-ETHYL-2-BENZOTHIAZOLINYLIDENE)-1,3-PENTADIENYL) BENZOTHIAZOLIUM IODIDE

3-ETHYL-2-(5-(3-ETHYL-2(3H)-BENZOTHIAZOLYLIDENE)-1,3-PENTADIENYL)- BENZOTHIAZOLIUM IODIDE

Legislative or regulation action

Product Name **Dithiazanine iodide**

C.A.S. number **514-73-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1964**	Reports of death associated with the use of dithiazanine iodide led the Food and Drug Administration to limit the indications for its use to trichuris trichuria and strongyloides stercoralis infestations of a clinically severe nature.
FRA	**Nov 1964**	Withdrawn from the market in agreement with the manufacturer following reports of death associated with its use.
TCD	**1965**	Following reports of fatal incidents associated with the use of dithiazanine iodide, the Ministry of Foreign Affairs prohibited importation and marketing of this drug.
ITA	**1979**	Withdrawn from the market owing to an unfavourable risk/benefit balance.
CUB		Withdrawn from use on grounds of adverse effects on the gastrointestinal tract. This drug has been superseded by more effective and less toxic products. **WHO Comment : Dithiazanine iodide, an anthelminthic, was introduced in 1959 for the treatment of strongyloid worms and whipworms. Between 1961 and 1964 its use was associated with eight fatal cases of severe acidosis and shock. Although the drug is not significantly absorbed from the gut, in normal circumstances it was assumed that these fatalities were due to atypically high uptake from inflamed intestinal mucosa. Dithiazanine iodide has been superseded by safer and more effective drugs; however, it may remain available in some countries.**

Product Name **Domperidone(injectable)**

C.A.S. number **57808-66-9**

Scientific and common names, and synonyms

5-CHLORO-1-(1-(3-(2-OXO-1-BENZIMIDAZOLINYL)PROPYL)-4-PIPERIDYL)-2- BENZIMIDAZOLINONE

2H-BENZIMIDAZOL-2-ONE, 5-CHLORO-1-(1-(3-(2,3-DIHYDRO-2-OXO-1H- BENZIMIDAZOL-1-YL)PROPYL)-4-PIPERIDINYL)1,3-DIHYDRO-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**31 Jan 1985**	The manufacturer has informed the World Health Organization that injectable dosage forms of the antiemetic domperidone have been voluntarily withdrawn from all markets following reports of cases of cardiotoxicity associated with intravenous administration. Suppositories remain available and injectable forms will continue to be supplied for a named patient at the written request of a doctor. **WHO Comment : Domperidone, a peripheral dopaminergic antagonist, was introduced in 1979 for the symptomatic relief of acute nausea and vomiting. The major manufacturer became aware that the injectable formulation was being used in some countries in much higher doses than those recommended to combat nausea and vomiting in cancer patients treated with cytostatic agents. Such use - which was not in conformity with the approved indications - was associated with cardiotoxicity, which in some cases was fatal, and the manufacturer decided to withdraw the injectable dosage form from the market worldwide in January 1985. Suppositories, tablets and a suspension remain available and the manufacturer continues to supply the injection for the treatment of a named patient at the written request of a doctor on the understanding that the appropriate dosage recommendations will be followed.**

Product Name **Doxepin**

C.A.S. number **1668-19-5**

Legislative or regulation action

Product Name **Doxepin**

C.A.S. number **1668-19-5**

Scientific and common names, and synonyms

3-(DIBENZ[B,E]OXEPIN-11-YLIDENE)PROPYL-DIMETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1992**	The Medicines Control Authority has decided that the 50 mg tablet formulation of doxepin may be prescribed only in hospitals and specialized clinics because of the toxic potential of this product and the risk of overdosage and suicide with the high dose formula. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 9, 1992) **WHO Comment : Doxepin, a tricyclic antidepressant was introduced in 1964 for the management of endogenous depression. Much of the adverse effects are caused by its antimuscarinic actions. These include dry mouth, cardiac arrhythmias, central nervous system disturbances, blood disorders and risk of suicide. The risk of suicide and dangers related to overdosage led the Norwegian Medicines Control Authority to put the higher strength formulation under prescribing restriction in 1992. The risk of death following overdosage is apparently higher for products containing tricyclic compounds as compared with nontricyclic products.**

Product Name **Doxycycline hyclate(injectable)**

C.A.S. number **24390-14-5**

Scientific and common names, and synonyms

6-DEOXY-5BETA-HYDROXYTETRACYCLINE HYDROCHLORIDE

2-NAPHTACENECARBOXAMIDE,4-(DIMETHYLAMINO)-1,4,4A,5,5A,6,11,12A-OCTAHYDRO-3,5,10,12,12A-PENTAHYDROXY-6-METHYL-1,11-DIOXO-,MONOHYDROCHLORIDE, COMPD. WITH ETHANOL(2:1),MONOHYDRATE,[4S-(4ALPHA,4AALPHA,5ALPHA,5AALPHA,6ALPHA,12AALPHA)]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**1989**	The use of injectable preparations containing doxycycline hyclate has been restricted exclusively to hospitals, on the grounds that cases of anaphylactic shock and bronchospasm, some of which have been fatal, have occurred during intravenous administration of the product. Furthermore, these preparations should only be prescribed to patients unable to take medicines orally and should always be administered by slow intravenous infusion and under close supervision. (Reference: (FRAMH) Ministry of Solidarity, Health and Social Protection, , , 17 Feb 1989)
MAR	**May 2000**	The National Advisory Commission for Pharmacovigilance has suspended marketing authorization for all pharmaceutical products containing doxycycline in capsule form. There is evidence of a high risk of oesophageal damage with the administration of capsules of doxycycline. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
FRA	**Feb 2001**	The gel form of doxycycline preparations remain suspended in France due to frequent associations of adverse effects on the oesophagus. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001) **WHO Comment : Doxycycline, a semi-synthetic tetracycline derivative, was first introduced into medicine in 1960 for the treatment of bacterial, rickettsial and amoebic infections. Although allergic manifestations are uncommon, injectable preparations have occasionally resulted in severe anaphylactoid reactions. Clinical features and the fact that asthmatic patients seemed to be particularly at risk lead to suspect a sulfite preservative in the formulation more than doxycycline itself. Rapid administration may also be a factor. Injectable preparations of doxycycline hyclate are included in the WHO Model List of Essential Drugs.**

Product Name **Doxycycline hyclate(injectable)**

C.A.S. number **24390-14-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (WHTAC4) The Use of Essential Drugs, 4th Report of the WHO Expert Committee, 796, , 1990)

Product Name **Dronabinol**

C.A.S. number **1972-08-3**

Scientific and common names, and synonyms

NSC-134454

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1998**	Dronabinol is reclassified from Schedule II to Schedule III of the US Controlled Substances Act. Dronabinol is internationally controlled in Schedule II of the 1971 Convention on Pyschotropic Substances. (Reference: (FEREAC) Federal Register, 63(214) , p. 59751, 1998)

Product Name **Droperidol**

C.A.S. number **548-73-2**

Scientific and common names, and synonyms

1-[1-[4-(FLUOROPHENYL)-4-OXOBUTYL]-1,2,3,6-TETRAHYDRO-4-PYRIDINYL]-1,3-DIHYDRO-2H-BENZIMIDAZOL-2-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Mar 2001**	Droperidol has been withdrawn in the UK following concerns about serious cardiac adverse effects. (Reference: (GBRISM) Information Safety Message, , , 11 Jan 2001)
IDN	**Jun 2001**	The National Agency for Drug and Food Control (NADFC) has suspended the marketing authorization of droperidol because of serious cardiac adverse effects. (Reference: (IDNCW) Communication to WHO, , , 13 Sep 2001)

Product Name **Droxicam**

C.A.S. number **90101-16-9**

Scientific and common names, and synonyms

5-METHYL-3-(2-PYRIDYL)-2H,5H-1,3-OXAZINO[5,6-C]-[1,2]BENZOTHIAZINE-2,4(3H)-DIONE 6,6-DIOXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@EC	**14 Dec 1994**	The Committee on Proprietary Medicinal Products has advised that the marketing authorization of droxicam should be suspended pending receipt of further data on epidemiological and pharmacokinetic studies. (Reference: (CPMPPO) Pharmacovigilance Opinion, No.18, , 14 Dec 1994) **WHO Comment : Droxicam is authorized to be marketed in many European countries. Although droxicam is metabolized to piroxicam, it is considered that the**

Product Name **Droxicam**

C.A.S. number **90101-16-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		risk of hepatic damage differs from that shown by other NSAIDs products, including piroxicam.

Product Name **Ebrotidine**

C.A.S. number **100981-43-9**

Scientific and common names, and synonyms

P-BROMO-N-[(E)-({2-[{(2-[DIAMINOMETHYLENE)AMINO]-4-THIAZOYL}METHYL)THIO]ETHYL}AMINO)METHYLENE]BENZENESULFONAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PER		La Direcciòn General de Medicamentos, Insumos y Drogas (DIGEMID) of the Ministry of Health withdrew marketing authorization for the histamine H2 receptor antagonist ebrotidine(Ebrocit) because of reports of serious liver dysfunction particularly on long-term treatment and when the drug was administered with anti-inflammatory agents and corticosteroids. (Reference: (PERDGM) Alerta DIGEMID, No. 07-98, , 12 Oct 1998)

Product Name **Emetine**

C.A.S. number **483-18-1**

Scientific and common names, and synonyms

EMETAN, 6',7',10,11-TETRAMETHOXY

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982) **WHO Comment : Emetine, an alkaloid obtained from ipecacuanha, was first used rationally as an amoebocide in 1912. It was subsequently widely used and was included in earlier editions of the WHO Model List of Essential Drugs but has now been replaced by the less cardiotoxic synthetic derivative dehydroemetine. Although it is valuable in the treatment of systemic amoebic hepatitis it has now been largely superseded by considerably less toxic drugs, and in particular by metronidazole.**

Product Name **Encainide**

C.A.S. number **37612-13-8**

Scientific and common names, and synonyms

BENZAMIDE,4-METHOXY-N-[2-[2-(1-METHYL-2-PIPERIDINYL)ETHYL]-PHENY]-,(Ñ)-

(Ñ)-2'-[2-(1-METHYL-2-PIPERIDYL)ETHYL]-P-ANISANILIDE

Legislative or regulative action

Legislative or regulation action

Product Name **Encainide**

C.A.S. number **37612-13-8**

Country	Effective Date	Description of action taken Grounds for decision
MYS	**Jul 1980**	Products containing encainide will only be considered for registration if the indications are restricted to the treatment of life-threatening arrhythmias only. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 3(3), 3, 1989)
SWE	**26 Oct 1990**	The indications for products containing encainide are restricted to prophylaxis and treatment of life-threatening ventricular tachyarrhythmia such as ventricular tachycardia in patients unresponsive to conventional treatment. (Reference: (SWEILS) Information från Läkemedelsverket, 1(3), , 1990) **WHO Comment : The membrane-stabilizing antiarrhythmic agent encainide was introduced into medicine in the mid-1980's. The decision to delete the indications for patients with asymptomatic and less severe symptomatic ventricular arrhythmias was taken on the basis of the results of a trial (CAST study) that showed a two-fold increase in deaths in post-myocardiac patients taking encainide compared with the placebo group. (See also WHO comment for flecainide).**

Product Name **Ephedra**

C.A.S. number **2004-0-0005**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**02 Jan 2004**	The FDA has banned the weight-loss aid ephedra due to safety concerns that the product can cause heart attacks and stroke. (Reference: (USADIZ) News and updates, , , 02 Jan 2004)
JOR	**19 Jan 2004**	The Jordan Food and Drug Administration has withdrawn a herbal product (Magic Herb), used to promote weight loss, on the grounds that it contain ephedra. This decision was based on the US FDA's website information about the unreasonable risk in using food supplements containing ephedra or ephedrine. (Reference: (JORPCC) Communication to WHO, , , 19 Jan 2004)
NLD	**18 Feb 2004**	According to the Ministry of Health in the Netherlands, ephedra herbal products may only be sold as medicinal products in the Netherlands. (Reference: (NLDMEB) News and Publications, , , 18 Feb 2004)

Product Name **Epinephrine**

C.A.S. number **51-43-4**

Scientific and common names, and synonyms

ADRENALINE

(-)-3,4-DIHYDROXY-ALPHA-((METHYLAMINO)METHYL)BENZYL ALCOHOL

2-BENZENEDIOL, 4-(1-HYDROXY-2-(METHYLAMINO)ETHYL)-,(R)-

3,4-DIHYDROXY-ALPHA-((METHYLAMINO)METHYL)-BENZYL ALCOHOL

4-(1-HYDROXY-2-(METHYLAMINO)-ETHYL)-1,2-BENZENEDIOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1973**	The National Drugs Advisory Board has withdrawn from the market all local anesthetic preparations intended for infiltration anesthesia containing epinephrine 1:50,000 and norepinephrine 1:50,000 alone or in combination. This decision, reached in agreement with the Irish Dental Association, followed reports of serious cardiovascular and

Product Name **Epinephrine**

C.A.S. number **51-43-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		cerebrovascular reactions.
VEN		Epinephrine is not approved for use for infiltration anaesthesia, either alone or in combination.
		WHO Comment : Epinephrine, first isolated in 1899, is the main hormone secreted by the adrenal medulla. It is widely used as a vasoconstrictor substance and in the treatment of anaphylactic shock. Its use in combination with local anaesthetics to prolong infiltration anaesthesia has been associated with systemic reactions including serious cardiovascular and cerebrovascular incidents. Regulations restricting the concentrations permitted in such preparations have been introduced in many countries but combination products containing epinephrine or levarterenol in concentrations of 1:80,000 or less remain widely available. Representative preparations are included in the WHO Model List of Essential Drugs. **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Epoetin alfa**

C.A.S. number **113427-24-0**

Scientific and common names, and synonyms

ERYTHROPOEITIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS		The Ministry of Health and Quality of Life has restricted the use of injections of epoetin alfa and beta, recombinant erythropoeitins, used in the management of anaemia associates with chronic renal failure in patients requiring renal dialysis to use in hospitals and renal dialysis centres. This is in order to minimize the risk of abuse of the drug by athletes and for horse racing. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)

Product Name **Epoetin beta**

C.A.S. number **122312-54-3**

Scientific and common names, and synonyms

ERYTHROPOEITIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS		The Ministry of Health and Quality of Life has restricted the use of injections of epoetin alfa and beta, recombinant erythropoeitins, used in the management of anaemia associates with chronic renal failure in patients requiring renal dialysis to use in hospitals and renal dialysis centres. This is in order to minimize the risk of abuse of the drug by athletes and for horse racing. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)

Product Name **Erythrityl tetranitrate**

C.A.S. number **7297-25-8**

Legislative or regulation action

Product Name **Erythrityl tetranitrate**

C.A.S. number **7297-25-8**

Scientific and common names, and synonyms

ERYTHROL NITRATE

NITROERYTHROL

NITROERYTHRITE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1998**	The Food and Drug Administration has withdrawn conditional approval of abbreviated new drug applications for single-entity drug products containing erythrityl tetranitrate because there is a lack of substantial evidence that these drugs are effective for indications relating to the management, prophylaxis or treatment of anginal attacks. (Reference: (FEREAC) Federal Register, 63(200) , p. 55616, 1998)

Product Name **Erythromycin estolate**

C.A.S. number **3521-62-8**

Scientific and common names, and synonyms

ERYTHROMYCIN, 2'PROPIONATE, DODECYL SULPHATE

ERYTHROMYCIN PROPIONATE LAURYL SULPHATE

ERYTHROMYCIN 2'-PROPANOATE DODECYL SULPHATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP	**Nov 1976**	Banned for importation.
GRC	**1977**	Withdrawn from the market.
SDN	**1982**	The Ministry of Health no longer allows registration of preparations containing erythromycin estolate.
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
BGD	**1983**	Banned due to its reported hepatotoxicity.
BHR		Preparations containing erythromycin estolate are not approved for registration.
DNK		Registration has been cancelled. (Reference: (UGLAAD) Ugeskrift for Laeger, 136, 2093, Sep 1974)
PER		The package and/or label for this product requires a warning regarding the possibility of liver damage with this drug; and, in cases of repeated use, possible side effects including fever, nausea, vomiting, jaundice, and eosinophilia. It also warns pregnant women that no safe level for administration during pregnancy has yet been determined.
SWE		This product has been banned for use and/or sale for domestic purposes due to cases of severe cholestatic hepatitis and jaundice. **WHO Comment : Erythromycin estolate, a macrolide antibiotic, was introduced in 1958 for the treatment of gram-positive infections. By the early 1970s its use had been associated with a higher incidence of hepatic toxicity than that seen with other salts and esters of erythromycin. This led to its withdrawal by some regulatory authorities whereas others required the addition of a warning in the product information. Evidence that the estolate ester is more hepatotoxic than other salts or esters has subsequently been disputed. It has been claimed to be the**

Product Name **Erythromycin estolate**

C.A.S. number **3521-62-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		most effective ester for treatment of Legionnaire's disease and preparations remain widely available. **(Reference: (BMJOAE) British Medical Journal, 286, 1954, 1983)**

Product Name **Etanercept**

C.A.S. number **185243-69-0**

Scientific and common names, and synonyms

1-235-TUMOR NECROSIS FACTOR RECEPTOR (HUMAN) FUSION PROTEIN WITH 236-467-IMMUNOGLOBULIN G1 (HUMAN GAMMA1-CHAIN FC FRAGMENT) DIMER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHL	**Oct 2001**	The Public Health Institute of Child has modified the labels to include warnings about the adverse reactions that affect the central nervous system and the haematological system. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)

Product Name **Ethambutol**

C.A.S. number **74-55-5**

Scientific and common names, and synonyms

[S-(R*, R*)]-2,2 1-(1,2-ETHANEDIYLDIIMINO)BIS(1-BUTANOL);

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Oct 2000**	Warning about the risk of loss of eyesight. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)

Product Name **Ethanol**

C.A.S. number **64-17-5**

Scientific and common names, and synonyms

ALCOHOL

ETHYL ALCOHOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
KWT	**1966**	The permissible limit of ethanol in liquid oral dosage forms should not exceed 10%. (Reference: (KTMD) Ministerial Decree, 71/66, , 1966)
CHL	**1 Sep 1985**	The Institute of Public Health has prohibited the use of ethanol in oral pharmaceutical products. Exemptions from this decision will be allowed when use of ethanol is essential for galenic reasons, provided that it is used for this purpose at the lowest effective concentration. (Reference: (CHLRS) Resolution of the Minister of Health, No.3102, , Apr 1985)
IRQ	**1989**	The Ministry of Health has approved the restriction of the inclusion of ethanol in

Product Name **Ethanol**

C.A.S. number **64-17-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		pharmaceutical preparations. (Reference: (IRQMH) Resolution of the Arab Ministers of Health 13th Meeting, 9-13, , 1986)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale, all paediatric oral liquid formulations of pharmaceutical products containing ethanol, and all formulations for adults containing more than 5% of ethanol. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992)
USA	**1995**	The maximum permissible concentration limits for alcohol (ethanol, ethyl alcohol) as an inactive ingredient in over-the-counter drug products intended for oral ingestion have been established as 0.5% alcohol for children under six years of age; 5% for children between six and twelve years of age and 10% for children over twelve years of age and adults. The alcohol content should be stated prominently in a display panel on the front page of all product labelling. (Reference: (FEREAC) Federal Register, 60(48) , p. 13590, 1995)
BRA	**Apr 2001**	The National Health Surveillance Agency has prohibited the inclusion of ethanol in pharmaceutical preparations. (Reference: (BRARES) Resolucao n., 543/ANVISA, , 19 Apr 2001)
ARE		Pharmaceutical preparations containing high concentrations of ethanol are banned. **WHO Comment : Ethanol has been used throughout recorded history both in a medicinal and a social context. It is currently included in pharmaceutical preparations either as an active or inactive ingredient. At pharmacologically active doses ethanol is both a powerful cerebral depressant and a drug of addiction. Its use in pharmaceutical preparations has been severely restricted in several countries and in 1986 the 39th World Health Assembly adopted a resolution to prohibit such use except when ethanol is an essential ingredient which cannot be replaced by an appropriate alternative.**

Product Name **Ethyl nitrite (spirit)**

C.A.S. number **109-95-5**

Scientific and common names, and synonyms

NITROUS ETHER SPIRIT

SWEET NITRE SPIRIT

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**26 Jun 1980**	Withdrawn from the market and prohibited for export by the Food and Drug Administration (FDA) due to the lack of scientific evidence for its effectiveness for any use. This drug was used in infants and children as a diuretic, a diaphoretic and an intestinal antispasmodic. The FDA has found evidence of a risk of fatal methaemoglobinaemia and poisoning in some infants. (Reference: (FEREAC) Federal Register, 45(126), 43400, 1980) **WHO Comment : Ethyl nitrite was formerly available in over-the-counter preparations for use as a diaphoretic, a diuretic and an intestinal antispasmodic. In the 1970s its use was associated with cases of methaemoglobinaemia, some of which were fatal. This led to its withdrawal in 1980 by the United States Food and Drug Administration. WHO has no information regarding its current availability in pharmaceutical preparations.**

Product Name **Ethyl nitrite (spirit)**

C.A.S. number **109-95-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Ethylene dichloride**

C.A.S. number **107-06-2**

Scientific and common names, and synonyms

BROCIDE

DUTCH LIQUID

ETHANE, 1,2-DICHLORO-

1,2-DICHLOROETHANE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1978**	Two topical prescription preparations for rheumatic complaints containing ethylene dichloride were withdrawn. These preparations were implicated in a number of cases of acute poisoning following accidental ingestion and investigations by the National Cancer Institute in the USA demonstrated a possible carcinogenic effect.
SAU		Prohibited due to reports demonstrating carcinogenic effects in experimental animals.
		WHO Comment : Ethylene dichloride was formerly used as an excipient in some pharmaceutical preparations. It has been reported to be carcinogenic in experimental animals and its accidental ingestion has resulted in liver and kidney damage. Although ethylene dichloride continues to be used as an industrial solvent, WHO has no information to suggest that it remains commercially available in pharmaceutical products or as a food additive. **(Reference: (WHTAC3) 23rd Report of Joint FAO/WHO Expert Committee on Food Additives, 648, , 1980)**

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Product Name **Ethylestrenol**

C.A.S. number **965-90-2**

Scientific and common names, and synonyms

ETHYLOESTRENOL

19-NORPREGN-4-EN-17-OL,(17-ALPHA)

19-NOR-17-ALPHA-PREGN-4-EN-17-BETA-OL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, low-strength preparations were banned following unacceptable promotion encouraging their use in children suffering from malnutrition. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982) **WHO Comment : Ethylestrenol, an anabolic steroid, was introduced in 1964. In**

Product Name **Ethylestrenol**

C.A.S. number **965-90-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		1982, low dosage preparations were prohibited in Bangladesh due to inadmissible promotion of products containing anabolic steroids for malnourished children. Higher dosage preparations of ethylestrenol remain available in many countries, including Bangladesh, for several highly specific but limited indications that apply to patients with chronic debilitating and emaciating diseases, particularly associated with neoplasia and some types of aplastic anaemia. Ethylestrenol is additionally used for its fibrinolytic activity.

Product Name **Etomidate**

C.A.S. number **33125-97-2**

Scientific and common names, and synonyms

(+)-ETHYL 1-(ALPHA-METHYLBENZYL)IMIDAZOLE-5-CARBOXYLATE

1H-IMIDAZOLE-5-CARBOXYLIC ACID, 1-(1-PHENYLETHYL)-, ETHYL ESTER(+)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**1985**	Use of etomidate is restricted to induction of anaesthesia having regard to reports of reduced serum cortisol levels unresponsive to adrenocorticotropic hormone (ACTH) injections. **WHO Comment : Etomidate, a potent hypnotic agent, was introduced in 1977 for use as an intravenous anaesthetic. Its prolonged use can inhibit adrenal steroidogenesis and, following reports of reduced serum cortisol levels unresponsive to ACTH injection, the manufacturer suspended promotion of etomidate for sedation in intensive care in 1983. In 1985 regulatory action taken only in the United Kingdom further restricted use of the drug to induction of anaesthesia. Etomidate remains widely available and is currently registered for induction of anaesthesia in 34 countries and for maintenance of anaesthesia in 17 countries. It has never been registered for sedation.**

Product Name **Etretinate**

C.A.S. number **54350-48-0**

Scientific and common names, and synonyms

ETHYL (ALL-E)-9-(4-METHOXY-2,3,6-TRIMETHYLPHENYL)-3,7-DIMETHYL-2,4,6.8- NONATETRAENOATE

2,4,6,8-NONATETRAENOIC ACID, 9-(4-METHOXY-2,3,6-TRIMETHYLPHENYL)-, ETHYL ESTER, (ALL-E)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**24 Dec 1985**	Having regard to its teratogenicity, etretinate may only be used under the supervision and control of a hospital dermatologist. (Reference: (OMNMH) Ministry of Health, 5, , 1985)
SWE	**1987**	The National Board of Health and Welfare has decided that contraception is essential during treatment of women of child-bearing age and that contraceptive measures must be continued for at least two years after discontinuation of treatment.
MYS	**1988**	The Drug Control Authority has decided that the labelling of preparations containing etretinate should contain a distinct warning regarding teratogenicity, emphasizing that contraceptive measures must be instituted throughout treatment and for at least twelve

Product Name **Etretinate**

C.A.S. number **54350-48-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		months thereafter, and additional reference is also required to the following adverse effects: symptoms of hypervitaminosis-A; transient and reversible elevation of transaminases and alkaline phosphatases; bone changes after long-term high dosage; benign intracranial hypertension. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 2(1), 3, Feb 1988)
BEL	**1 Jan 1988**	Preparations containing etretinate have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and cross-bones label. They must bear a warning regarding the embryotoxicity and teratogenicity of the drug which contraindicates its use during pregnancy. (Reference: (BELAR) Arrêté Royal, , , June 1987)
NOR	**Dec 1992**	The Medicines Control Authority has withdrawn etretinate from the market. (Reference: (NORMCA) Norwegian Medicines Control Authority, , , 02 May 1995)
BRA	**Feb 2001**	Use and sale banned because of dangerous side effects, mainly myopathy. (Reference: (BRACW) , , , 13 Sep 2001)
ESP		Contraindications to etretinate must include a boxed paragraph stating that the drug may be used in women of child-bearing age only when an effective method of contraception assures protection during and for at least one year after discontinuation of treatment. Pregnancy must be excluded before initiation of treatment.
ITA		Having received reports of two deaths among patients taking etretinate, the Ministry of Health has decided to restrict the product to hospital use only for the treatment of particularly serious and/or diffuse forms of psoriasis causing evident psychological stress. **WHO Comment : Etretinate, a retinol derivative, was introduced in 1981 for the treatment of psoriasis. Its use in pregnant women has resulted in major foetal abnormalities. The manufacturer's information emphasizes that the drug is teratogenic and must not be given to women who are pregnant, and that contraceptive measures must be maintained for at least two years after discontinuation of treatment. In some countries, blood banks are advised not to accept as donors persons who have taken etretinate within the previous year.**

Product Name **Factor IX**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE		A manufacturer of Factor IX concentrate has withdrawn the product from the market following reports of infections with HIV (the AIDS virus) in three patients known to have been treated with the product. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 3, 8, 1986) **WHO Comment : Factor IX, a naturally occurring plasma protein fraction, is a vital component of the normal blood clotting mechanism which is deficient in haemophiliacs who require replacement therapy for both the treatment and prevention of bleeding. Factor IX is extracted from the pooled plasma of a large number of donors and is presented as a concentrate. It has been recognized since 1984 that some viruses, and particularly the HIV (AIDS virus) could be transmitted to haemophiliacs from such preparations. As a result many regulatory authorities have issued new directives for the manufacture of blood products that avert this**

Product Name **Factor IX**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		danger, by requiring the introduction of specific antiviral treatment measures during the manufacturing process. Manufacturers have withdrawn pre-existing preparations.

Product Name **Factor VIII**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jun 1984**	Having regard to the transfer of AIDS and other viral diseases, changes in the manufacturing process of Factor VIII preparations are required. These include selection of donors, monitoring for viral contamination, limiting the donor-pool as well as the inclusion of warnings in the product information.
GBR	**Oct 1986**	A manufacturer of Factor VIII products has agreed voluntarily to surrender product licences for these products following concern about the ability of the heat treatment procedure used to inactivate HIV (the AIDS virus). **WHO Comment : Factor VIII, a naturally occurring plasma protein fraction, is a vital component of the normal blood clotting mechanism which is deficient in haemophiliacs who require replacement therapy for both the treatment and prevention of bleeding. Factor VIII is extracted from the pooled plasma of a large number of donors and is presented as a concentrate. It has been recognized since 1984 that some viruses, and particularly the HIV (AIDS virus) could be transmitted to haemophiliacs from such preparations. As a result many regulatory authorities have issued new directives for the manufacture of blood products that avert this danger, by requiring the introduction of specific antiviral treatment measures during the manufacturing process. Manufacturers have withdrawn pre-existing preparations.**

Product Name **Famotidine**

C.A.S. number **76824-35-6**

Scientific and common names, and synonyms

3-[[[2-[(AMINOIMINOMETHYL)AMINO]-4-THIAZOLYL]METHYL]THIO-N-(AMINOSULFONYL)PROPANIMIDAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Apr 2001**	To be used with precaution, especially in renal patients. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)

Product Name **Fenclofenac**

C.A.S. number **34645-84-6**

Scientific and common names, and synonyms

BENZENEACETIC ACID, 2-(2,4-DICHLOROPHENOXY)-

(O-(2,4-DICHLOROPHENOXY)PHENYL)ACETIC ACID

Legislative or regulative action

Legislative or regulation action

Product Name **Fenclofenac**

C.A.S. number **34645-84-6**

Country	Effective Date	Description of action taken Grounds for decision
GBR	**1985**	Withdrawn from the market.
NOR	**1985**	Not approved for registration having regard to its propensity to cause skin reactions which are not considered to be counter-balanced by any apparent advantage over other nonsteroidal anti-inflammatory drugs. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, , 1985) **WHO Comment : Fenclofenac, a nonsteroidal anti-inflammatory agent, was introduced in 1978 for the treatment of rheumatic disorders. By 1984 its use in the United Kingdom was associated with serious adverse effects, predominantly skin rashes, some of which were fatal. This led to the UK Committee on Safety of Medicine's refusal to renew the product licence and to the subsequent withdrawal of the drug by the manufacturer in all countries in which it was marketed.**

Product Name **Fenetylline**

C.A.S. number **3736-08-1**

Scientific and common names, and synonyms

7-[2-[ALPHA-METHYLPHENETHYL)AMINO]ETHYL]THEOPHYLLINE

AMFETYLINE

FENETHYLLINE

1H-PURINE-2,6-DIONE,3,7-DIHYDRO-1,3-DIMETHYL-7-[2-[(1-METHYL-2-PHENYLETHYL)AMINO]ETHYL]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**May 1991**	Import and marketing of products containing fenetylline were prohibited. (Reference: (OMNCR) Circular, 16/91, , May 1991)
BGR	**09 Apr 1992**	Manufacture, use, storage, trade, import, and export of the central stimulant fenetylline were no longer permitted. (Reference: (BGRNDI) Communication from National Drug Institute, , , 09 Apr 1992) **WHO Comment : Fenetylline, a theophylline derivative of amfetamine, was introduced in 1966 as a central nervous stimulant. It is subject to abuse and is therefore controlled under Schedule II of the 1971 Convention on Psychotropic Substances. Fenetylline is not widely marketed.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Fenfluramine**

C.A.S. number **458-24-2**

Scientific and common names, and synonyms

BENZENEETHANAMINE, N-ETHYL-?-METHYL-3-(TRIFLUOROMETHYL)-, HYDROCHLORIDE

BENZENEETHANAMINE, N-ETHYL- -METHYL-3-(TRIFLUOROMETHYL)-, HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARE	**1997**	The Ministry of Health has withdrawn the marketing approval for fenfluramine the only anorectic drug approved in the UAE. (Reference: (UAEDIB) Drug Information Bulletin, No. 3, p.2, 1997)

Product Name **Fenfluramine**

C.A.S. number **458-24-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Aug 1997**	The Food and Drug Administration alerted physicians to reports of valvular heart disease in women treated for obesity with a combination of fenfluramine and phentermine which were approved in the USA for single-drug, short-term obesity therapy but have more recently been widely used "off-label" in combination for long-term management of obesity. The FDA agreed labelling changes with the manufacturers, including a boxed warning describing valvular heart disease and advising patients to consult a physician if these symptoms develop.
@WD	**Sep 1997**	The anti-obesity agents fenfluramine and its stereoisomer dexfenfluramine were withdrawn worldwide following the association of valvular heart disease with these drugs.
PHL	**Sep 1998**	The Department of Health Bureau of Food and Drugs has noted the voluntary withdrawal by the sponsoring company of the anorectic drugs fenfluramine and dexfenfluramine. (Reference: (PHLCTW) Communication to WHO, , , 15 Aug 2000) **WHO Comment : Fenfluramine, dexfenfluramine and phentermine were approved individually more than 20 years ago in the USA for single-drug, short-term treatment of obesity. The manufacturers of fenfluramine and dexfenfluramine have since voluntarily withdrawn both products from the market worldwide. Phentermine remains available.**

Product Name **Fenoterol**

C.A.S. number **13392-18-2**

Scientific and common names, and synonyms

1,3-BENZENEDIOL,5-[1-HYDROXY-2-[[2-(4-HYDROXYPHENYL-1-METHYLETHYL]AMINO]ETHYL]-

3,5-DIHYDROXY-ALPHA-[[P-HYDROXY-ALPHA-METHYLPHENYLETHYL)AMINO]METHYL]BENZYL ALCOHOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**27 Mar 1990**	The indications of products containing fenoterol have been restricted to the treatment of mild to moderate asthma, having regard to reports from New Zeland of an increased risk of death when fenoterol is used in patients with severe asthma. (Reference: (AUSTGA) Therapeutic Goods Administration, Department of Community Services and Health, , , 27 Mar 1990) **WHO Comment : Fenoterol, a beta 2-adrenoreceptor agonist with bronchodilator activity, was introduced in 1971 for the management of asthma. In the 1960's, the use of other sympathomimetics in pressurised aerosols had already been associated with an increase in mortality due to asthma. However, it was not clear whether patients died from the severity of the asthma attack or from its treatment.**

Product Name **Feprazone**

C.A.S. number **30748-29-9**

Scientific and common names, and synonyms

PRENAZONE

PHENYLPRENAZONE

4-(3-METHYLBUT-2-ENYL)-1,2-DIPHENYLPYRAZOLIDONE-3,5-DIONE

4-(3-METHYL-2-BUTENYL)-1,2-DIPHENYL-3,5-PYRAZOLIDINEDIONE

Legislative or regulative action

Product Name **Feprazone**

C.A.S. number **30748-29-9**

Country	Effective Date	Description of action taken Grounds for decision
GBR	**30 Mar 1984**	Voluntarily withdrawn from the market after concern was expressed over its risk-benefit ratio by the Committee on Safety of Medicines.
DEU	**Nov 1984**	Marketing authorization for the sale of feprazone was withdrawn at the request of the manufacturer having regard to the frequency of reported adverse reactions, particularly involving the skin, and demonstration of a carcinogenic potential in rats. The manufacturer had never exercised its option to market feprazone in the Federal Republic of Germany.
GRC	**1985**	Withdrawn from the market.
EGY	**26 Feb 1985**	Preparations containing feprazone are not approved for registration.
OMN	**May 1987**	Products intended for internal use containing feprazone were subjected to prescription control and a certificate from the Ministry of Health was required for their importation. (Reference: (OMNCR) Circular, 26/87, , May 1987)
AUT		Indications restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984) **WHO Comment : Feprazone, a pyrazolone derivative with antiinflammatory, analgesic and antipyretic activity, was introduced in 1978 for the treatment of rheumatic disorders. As it is structurally related to phenylbutazone it is subjected to rigorously restricted indications by some national regulatory authorities. See WHO comment for phenylbutazone. WHO has been informed that to date feprazone is only available in some 7 countries.**

Product Name **Fipexide**

C.A.S. number **34161-24-5**

Scientific and common names, and synonyms

1-[(P-CHLOROPHENOXY)ACETYL]-4-PIPERONYLPIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**1990**	Products containing fipexide were contraindicated in children, because their use had been associated withpneumopathy, neuropsychological disorders and rare cases of agranulocytosis. In 1991, the manufacturer decided to withdraw all preparations from the market. (Reference: (FRAMHH) Ministry of Health and Humanitarian Action, , , 11 Dec 1992) **WHO Comment : Fipexide, a stimulant of the central nervous system, was introduced in 1973 for the treatment of depression and memory defects. Following its association with hepatic and hemopoietic disorders, particularly in children, the drug was withdrawn in France. Although not widely marketed, it may still remain registered elsewhere.**

Product Name **Flecainide**

C.A.S. number **54143-55-4**

Scientific and common names, and synonyms

BENZAMIDE, N-(2-PIPERIDINYLMETHYL)-2,5-BIS(2,2,2-TRIFLUOROETHOXY)-

N-(2-PIPERIDYLMETHYL)-2,5-BIS(2,2,2-TRIFLUOROETHOXY)BENZAMIDE

Legislative or regulation action

Product Name **Flecainide**

C.A.S. number **54143-55-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**31 May 1989**	The indications for products containing flecainide are restricted to prophylaxis and treatment of life-threatening tachyarrhythmia, supraventricular tachyarrhythmia unresponsive to conventional treatment and Wolf-Parkinson-White syndrome. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 14(3), 60, 1989)
FRA	**Jul 1989**	The indications for flecainide have been restricted to the treatment of potentially life-threatening ventricular arrhythmias, particularly ventricular tachycardia, and symptomatic arrhythmias (except those resulting from myocardial infarction) with unchanged left ventricular function. Flecainide is now contraindicated in non-persistent ventricular arrhythmia after myocardial infarction. (Reference: (FRARP) La Revue Prescrire, 9(87), 292, 1989)
MYS	**Jul 1989**	The indications of products containing flecainide have been restricted to the treatment of life-threatening arrhythmias only. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 3(3), 3, 1989)
@EC	**Nov 1989**	Having regard to the CAST (Cardiac Arrhythmia Suppression Trial) study carried out in the USA, the Committee for Proprietary Medicinal Products has issued the following statement on products containing flecainide: 1) myocardial infarction as a precondition must be a contraindication for use except for life-threatening ventricular arrhythmias 2) asymptomatic and non severe symptomatic ventricular arrhythmias are contraindications 3) life-threatening ventricular arrhythmias may be treated provided that treatment is started in hospital under specific monitoring; 4) supraventricular arrhythmias may be treated provided that there is a definite need for treatment and in the absence of left ventricular function impairment. Patients on safe and effective long-term treatment with flecainide already before publication of the results of the CAST study may continue to take the drug. (Reference: (CECC) Communication from CEC, , , 21 June 1990)
ITA	**1990**	The indications for products containing flecainide are restricted to some forms of supraventricular tachycardias and to persistent life-threatening hyperkinetic ventricular arrhythmia. In the latter indication, patients should be hospitalized when treatment is commenced and remain under specialized medical supervision throughout therapy. Use is contraindicated in cases of cardiac block, cardiogenic shock, cardiac insufficiency, known hypersensitivity and in patients with a history of myocardial infarction, except for the treatment of life-threatening ventricular arrhythmias. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, 14(1), 2, 1990)
NOR	**1990**	The indications for products containing flecainide were restricted to life-threatening ventricular tachycardia and to treatment and prophylaxis of severe incapacitating supraventricular arrhythmia. Treatment was required to be instituted in a hospital after full cardiological assessment of the patient. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 4, 7, 1990)
DEU	**Jan 1990**	The approved indications of flecainide are restricted to supraventricular and severe ventricular arrhythmias. It is contraindicated in recent myocardial infarction and impaired ventricular function, except in patients with life-threatening arrhythmias. (Reference: (DAZ) Deutsche Apotheker Zeitung, 130(5), 10, 1990) **WHO Comment : The membrane-stabilizing antiarrhythmic agent flecainide was introduced into medicine in 1982. The decision to delete the indications for patients with asymptomatic and less severe symptomatic ventricular arrhythmias was taken on the basis of the results of a trial (CAST study) that showed a two-fold increase in deaths in post-myocardiac patients taking flecainide compared with the placebo group.**

Product Name **Floctafenine**

Legislative or regulation action

C.A.S. number **23779-99-9**

Scientific and common names, and synonyms

BENZOIC ACID, 2-[[8-(TRIFLUOROMETHYL)-4-QUINOLINYL]AMINO]-,2,3-DIHYDROXYPROPYL ESTER

2,3-DIHYDROXYPROPYL-N-(8-TRIFLUOROMETHYL-4-)QUINOLYL)ANTHRANILATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**26 Jun 1987**	Having regard to the potential of floctafenine to cause severe anaphylactic shock, products containing floctafenine may now only be obtained on medical prescription. (Reference: (BELAR) Arrêté Royal, , , June 1987) **WHO Comment : See WHO comment for glafenine.**

Product Name **Flosequinan**

C.A.S. number **76568-02-0**

Scientific and common names, and synonyms

4(1H)-QUINOLINONE, 7-FLUORO-1-METHYL-3-(METHYLSULFINYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Jul 1993**	Subsequent to its withdrawal of the 100 mg tablet formulation of the vasodilator, flosequinan (Manoplax: Boots), the manufacturer has now also withdrawn the remaining 50 mg tablet. The company took this decision after further analysis of interim results of a trial (100 mg and 75 mg) showed an increase in hospital admissions among patients taking doses of 75 mg daily (the only available dosage formulation the trial conducted in the United States). The initial analysis had shown increased risk of death in patients taking the 100 mg dosage. In view of these data the company considered the continued use of flosequinan could not be recommended. (Reference: (GBRPHJ) The Pharmaceutical Journal, p.114, , 24 July 1993)

Product Name **Flunarizine**

C.A.S. number **52468-60-7**

Scientific and common names, and synonyms

PIPERAZINE,1-[BIS(4-FLUOROPHENYL)METHYL]-4-(3-PHENYL-2-PROPENYL)-,(E)-

(E)-1-[BIS-(P-FLUOROPHENYL)METHYL]-4-CINNAMYLPIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**Aug 1989**	Having regard to their potential to induce extrapyramidal symptoms, products containing flunarizine may no longer be indicated for cerebral and peripheral arterial insufficiency, including loss of memory, insomnia, intermittent claudication, rest pain or vasospastic disturbances. The approved indications are restricted to vestibular disturbances, vertigo, prophylaxis of vascular headache and prevention of motion sickness. (Reference: (ESPINS) Información Terapéutica de la Seguridad Social, 13(8), 176, 1989)
DEU	**Jan 1991**	The indications for products containing flunarizine were restricted to the treatment of vestibular dysfunction, having regard to association of the compound with Parkinsonism, extrapyramidal symptoms and depression and to insufficient proof of efficacy in other indications. Doctors were advised not to continue treatment for longer than is necessary to obtain an effective response, and in no circumstances for longer than 3 months. (Reference: (BGHBL) Bundesgesundheitsblatt, 2/91, 81, Feb 1991)
@EC	**12 Mar 1991**	The Committee for Proprietary Medicinal Products advised that the indications for

Product Name **Flunarizine**

C.A.S. number **52468-60-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		products containing flunarizine should be restricted to the prophylaxis of severe refractory migraine and to the treatment of functional vestibular vertigo, having regard to the risks associated with their use. In 1989 the Committee had recommended that the approved product information should: 1) state that the product is contraindicated in patients with a history of extrapyramidal symptoms, Parkinsonism, Alzheimer's disease and depression; 2) warn that it may induce extrapyramidal signs and depression and unmask Parkinsonism, particularly in the elderly; 3) provide a description of the signs of extrapyramidal and depressive reactions. (Reference: (CPMPPO) Pharmacovigilance Opinion, 6, , 13 Sep 1989)
JPN	**Jul 1991**	The approved labelling of products containing flunarizine was amended to indicate that reversible extrapyramidal disturbances and, less frequently, depression have been associated with their use, particularly in the elderly. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, 109, , July 1991) **WHO Comment : Flunarizine, an antihistaminic and vasodilator agent, was introduced into medicine in 1970. It is indicated for the treatment of central and peripheral vascular disorders. However, its effectiveness in these conditions has not been convincingly demonstrated, and its use has been associated with adverse reactions involving the central nervous system, including extrapyramidal disturbances and depression. This has led several regulatory authorities to restrict the approved indications for products containing flunarizine.**

Product Name **Flunitrazepam**

C.A.S. number **1622-62-4**

Scientific and common names, and synonyms

5-(O-FLUOROPHENYL)-1,3-DIHYDRO-1-METHYL-7-NITRO-2H-1,4-BENZODIAZEPIN-2- ONE

2H-1,4-BENZODIAZEPIN-2-ONE, 5-(2-FLUOROPHENYL)-1,3-DIHYDRO-1-METHYL-7- NITRO-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**1986**	The Ministry of Health and Social Assistance has subjected flunitrazepam to controls equivalent to those applied to drugs in Schedule II of the 1971 Convention on Psychotropic Drugs in view of its frequent abuse by drug addicts.
DEU	**1 Apr 1994**	As from 1 April 1994, pharmaceutical products containing more than 1-mg flunitrazepam per delivery unit will be scheduled under Narcotic Drugs Regulations. Pharmacists are now required to maintain records indicating the quantity of stock held and their destination. The major manufacturers have been requested to comply with relevant provisions. (Reference: (DAZ) Deutsche Apotheker Zeitung, 134(13):1130, , 31 Mar 1994)
ZAF		The South African Medicines Control Council has withdrawn registration of all 2 mg formulations of flunitrazepam and has scheduled 1 mg tablets in Schedule 6 of the Narcotic Drugs Regulations. It has also decreed that all flunitrazepam- containing products be reformulated to include a bitter taste and colorant in order to minimize risk of illegal use in facilitating crimes. (Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,) **WHO Comment : Flunitrazepam, a benzodiazepine derivative with sedative and hypnotic activity, was introduced in 1974 for the management of anxiety. Although it is subject to international control under Schedule IV of the 1971 Convention on Psychotropic Substances, its potential for abuse by drug addicts has led at least two countries (Germany and Turkey) to apply controls equivalent to those of**

Product Name **Flunitrazepam**

C.A.S. number **1622-62-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		Schedule II. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Fluoxetine**

C.A.S. number **54910-89-3**

Scientific and common names, and synonyms

BENZENEPROPANAMINE, N-METHYL-G-[4-(TRIFLUOROMETHYL)- PHENOXYL]-, (±)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**Dec 1994**	Hyponatraemia which may be life-threatening may occur with fluoxetine and other selective serotonin reuptake inhibitors particularly in elderly women. Patients in the ?at risk? category should have electrolyte monitoring during the first month of therapy. (Reference: (NZLPU) Prescriber Update, No.7, , Dec 1994)

Product Name **Fluvoxamine**

C.A.S. number **54739-18-3**

Scientific and common names, and synonyms

5-METHOXY-4'-(TRIFLUOROMETHYL)VALEROPHENONE (E)-0-(2-AMINOETHYL)OXIME

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISL		The Committee on Pharmaceuticals has refused to approve fluvoxamine for registration because animal experiments have shown teratogenicity and a potential to cause renal damage. (Reference: (ISLCP) Notification, , , Feb 1987)

Product Name **Furazolidone**

C.A.S. number **67-45-8**

Scientific and common names, and synonyms

NITROFURAZOLIDONUM

NIFURAZOLIDONUM

2-OXAZOLIDINONE, 3-(((5-NITRO-2-FURANYL)METHYLENE)AMINO)-

3-((5-NITROFURFURYLIDENE)AMINO)-2-OXAZOLIDONE

3-((5-NITROFURFURYLIDENE)AMINO)-2-OXAZOLIDINONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Withdrawn from all marketed preparations on the grounds that it has been superseded by safer and more effective preparations.
PHL	**1980**	Approved for restricted use only. Animal tests have shown that this drug has

Product Name **Furazolidone**

C.A.S. number **67-45-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		carcinogenic potential. A warning statement is required to be placed on the labels of all products.
ITA	**1982**	The following warning has been inserted on the label taking into account experimental data on animals: "To be used systemically only for short periods and under the physician's guidance".
IRQ	**1986**	The National Board for the Selection of Drugs has withdrawn furazolidone form the market.
MYS	**Mar 1987**	All products containing furazolidone have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.8, , Dec 1986)
KOR	**Dec 1988**	All products containing furazolidone were banned, because there are many preparations which are safer and more effective. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991)
LBN	**Aug 1991**	Products containing furazolidone intended for the treatment of diarrhoea in children were withdrawn. (Reference: (LBNMHD) Ministry of Health and Social Affairs Decree, 150/1, , Aug 1991)
YEM	**1998**	The Supreme Board of Drugs and Medical Devices has withdrawn all formulations of the nitrofuran derivative, furazolidone, because many other safer and more effective alternatives are available. (Reference: (YEMCW) Communications to WHO, , , 10 Oct 1998) **WHO Comment : Furazolidone, a nitrofuran derivative with antibacterial and antiprotozoal activity, was introduced in 1954. In the 1970s it was shown to have a carcinogenic potential following long-term administration to experimental animals. However, the relevance of this to short-term therapy in man has not been established. The risk-benefit assessment varies and furazolidone remains widely available in many countries for the treatment of diarrhoea and enteritis.**

Bibliographical references

WHO FOOD ADD., 31, 85, 1993

Product Name **Gallopamil**

C.A.S. number **1662-47-8**

Scientific and common names, and synonyms

ALPHA[3-[[2-(3,4-DIMETHOXYPHENYL)ETHYL]METHYLAMINO]PROPYL]-3,4,5-TRIMETHOXY-ALPHA-(1-METHYL-ETHYL) BENZENEACETONITRILE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**May 2001**	The General Directorate of Pharmaceuticals and Pharmacy of the Ministry of Health suspended the marketing authorization of gallopamil because of the decision of the Registration Committee. (Reference: (TURCW) Communication to WHO, , , 20 Sep 2001)

Product Name **Gamelonic acid**

C.A.S. number **2003-0-1001**

Scientific and common names, and synonyms

PRIMROSE OIL DERIVATIVE

Legislative or regulation action

Product Name **Gamelonic acid**

C.A.S. number **2003-0-1001**

Scientific and common names, and synonyms

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Oct 2002**	The Medicines Control Agency has withdrawn the marketing authorizations for two gamelonic acid containing derivatives (Epogam, Efamast) of primrose oil, originally licensed for the symptomatic relief of eczema in children, due to inadequate standards of efficacy with these products. However, since no safety issues are involved, these products will continue to be available in health food shops as dietary supplements. (Reference: (GBRNUP) News Update, , ,)

Product Name **Gangliosides**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**31 Aug 1992**	The Federal Health Office extended the suspension period for the injectable preparation of mixed bovine brain gangliosides at least until 30 September 1994. The product was first suspended in 1989 because of a possible association with Guillian-Barr, syndrome. (Reference: (DEUFHO) Communication from Federal Health Office, , , 31 Aug 1992) **WHO Comment : Gangliosides are a glycolipid extract of bovine cerebral cortex claimed to ameliorate peripheral neuropathies of various types, including post-herpetic neuropathy, tobacco-alcohol amblyopia, toxic acoustic injuries, and traumatic facial paralysis. Its use has been associated with cases of Guillain-Barr, syndrome characterized by mixed polyneuropathy and in some instances, flaccid paralysis.**

Product Name **Gemfibrozil**

C.A.S. number **25812-30-0**

Scientific and common names, and synonyms

PENTANOIC ACID, 5-(2,5-DIMETHYLPHENOXY)-2,2-DIMETHYL

2,2-DIMETHY-5-(2,5-XYLYLOXY)VALERIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1987**	The Medicines Control Authority has refused registration of gemfibrozil on the grounds that the risk of adverse effects is not balanced by therapeutic benefit. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 4, 10, 1987) **WHO Comment : Gemfibrozil, an antihyperlipidaemic derivative of clofibrate, was introduced in the early 1980's. It is registered in several countries for the treatment of hyperlipidaemia unresponsive to dietary measures. (See also the WHO comment for clofibrate).**

Product Name **Gentamicin (topical preparations)**

C.A.S. number **1403-66-3**

Scientific and common names, and synonyms

O-3-DEOXY-4-C-METHYL-3-(METHYLAMINO-?-L-ARABINO-PYRANOSYL-(1?6)-O-[2,6,DIAMINO-2,3,4,6-TETRADEOXY-?-D-ERYTHRO-HEXOPYRANOSYL-(1?4)]-2-DEOXY-D-STREPTAMINE (GENTAMICIN C)1A

Legislative or regulation action

Product Name **Gentamicin (topical preparations)**

C.A.S. number **1403-66-3**

Scientific and common names, and synonyms

O-3-DEOXY-4-C-METHYL-3-(METHYLAMINO- -L-ARABINO-PYRANOSYL-(1 6)-O-[2,6,DIAMINO-2,3,4,6-TETRADEOXY- -D-ERYTHRO-HEXOPYRANOSYL-(1 4)]-2-DEOXY-D-STREPTAMINE (GENTAMICIN C1A)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**1994**	The Committee for the Evaluation of Medicines has withdrawn the marketing authorization for dermal products containing gentamicin. The Committee considers that the local use of antibiotics that are also available for systemic administration is no longer acceptable because of the risk of development of resistance (including cross-resistance with other aminoglycoside antibiotics). (Reference: (NPHWB) Pharmaceutisch Weekblad, 28(5):126, , 1994)
MYS	**May 1997**	The Drug Control Agency has decided to lift the ban on topical preparations containing gentamicin. However, the indications will be restricted to community-based skin infections only, i.e. treatment of impetigo, erythema and other localized primary bacterial skin infections with a Gram-negative component and also for secondary bacterial infections complicating other pre-existing dermatoses. In addition, a boxed warning will be included in the product information and package insert stating : "Use of topical gentamicin preparations in closed hospital settings is actively discouraged". (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 11(2): 8, , May 1997)
ARM		The Drug and Medical Technology Agency withdrew registration of gentamicin ointment for ?in situ? treatment of minor infections because antibiotics that are also available for systemic use are not considered acceptable for topical use because of resistance development. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000) **WHO Comment : Gentamicin has been used inin situ preparations for the treatment of minor infections. Antibiotics that are also available for systemic use are not considered acceptable for topical use because of the risk of development of resistance. Neomycin is the topical aminoglycoside listed in the WHO Model List of Essential Drugs.**

Product Name **Germander**

Scientific and common names, and synonyms

TEUCRIUM CHAMAEDRYS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office withdrew the marketing authorization for herbal medicines containing germander based on reports of hepatotoxicity generated within France by the drug regulatory agency. (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(12):20, , 1992)
FRA	**1992**	The Ministry of Health and Humanitarian Action suspended the marketing authorization for medicinal products containing the plant germander having regard to 26 cases of liver necrosis associated with the use of these products. (Reference: (FRARP) La Revue Prescrire, 12(114):17, , 1992)
BEL	**04 Aug 1992**	The Minister of Social Integration, Public Health and the Environment decided to suspend for a period of one year all medicines containing germander having regard to concerns relating to hepatotoxicity generated within France. This suspension has been prolonged for another year from 20 July 1993 by order of the Ministry. (Reference: (BELMD) Ministerial Decree, , , 04 Aug 1992)

Product Name **Germander**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (BELMB) Moniteur Belge, , 20542, 25 Sep 1992)
		WHO Comment : Germander has been tradionally used as a diet aid, a treatment for light diarrhoea, or locally as an analgesic for oral pain. In 1991, the first cases of hepatitis associated with the use of these products were reported to the National System of Pharmacovigilance in France. It is yet uncertain whether contamination possible by pesticides or fungi, may be implicated or whether these cases result from toxic or immuno-allergic reactions to constituents of Germander.

Product Name **Ginkgo biloba**

Scientific and common names, and synonyms

FOSSIL TREE

GBE-761

KEW TREE

MAIDENHAIR TREE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1998**	The Federal Institute for Drugs and Medical Devices has extended the suspension of parenteral infusion formulations after having received several reports of adverse reactions associated with its use, most of which described anaphylactic symptoms (shock, fever, leukocytosis, and cardiac arrhythmia), in some cases life-threatening. (Reference: (DEUCFI) Communication, , , 19 June 1998)

Product Name **Glafenine**

C.A.S. number **3820-67-5**

Scientific and common names, and synonyms

GLAPHENINE

2,3-DIHYDROXYPROPYL-N-(7-CHLORO-4-QUINOLYL) ANTHRANILATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1984**	Following reports of frequent severe allergic reactions, this analgesic was withdrawn from the market by the manufacturer.
ITA	**Oct 1987**	Having regard to adverse reactions reported in Italy and other countries, the General Directorate of the Pharmaceutical Service of the Ministry of Health has revoked the marketing authorization for suppositories containing 1 mg of glafenine. This preparation contained a higher dosage of the active principle than others available on the market. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, 10(10), 2, 1987)
BEL	**1 Jan 1991**	In agreement with the manufacturers, the Ministry of Health suspended the marketing authorization for all products containing glafenine, including extemporaneous preparations, following reports of anaphylactic shock, acute tubulo-interstitial renal insufficiency and immuno-allergic hepatitis. In 1992, glafenine was withdrawn by the major manufacturer. (Reference: (BELGPI) General Pharmaceutical Inspectorate, , , 12 Dec 1991)

Product Name **Glafenine**

C.A.S. number **3820-67-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@EC	**14 Jan 1992**	The Committee for Proprietary Medicinal Products of the European Communities recommended the withdrawal of products containing glafenine, because the risk of serious anaphylactic reactions associated with their use is greater than with other analgesics. (Reference: (CPMPPO) Pharmacovigilance Opinion, 8/2, , 14 Jan 1992)
CHE	**Mar 1992**	The marketing authorization for products containing glafenine was suspended and later withdrawn by the company. (Reference: (CHBCM) Bulletin Mensuel, , , Mar 1992)
FRA	**Mar 1992**	In agreement with the manufacturer, the Ministry of Health withdrew the marketing authorization for products containing glafenine, having regard to the risk of anaphylactic reactions. (Reference: (FRAMS) Ministry of Social Affairs and Integration, , , Apr 1992)
PRT	**Mar 1992**	The marketing authorization for monocomponent and combination products containing glafenine was suspended. (Reference: (PRTMH) Ministry of Health, , , Mar 1992)
OMN	**Mar 1992**	Import and marketing of products containing glafenine were prohibited, and they will not be considered for registration. (Reference: (OMNCR) Circular, 5/92, , Mar 1992)
@WD	**May 1992**	Upon agreement of regulatory authorities, products containing glafenine were withdrawn worldwide by the major manufacturer. (Reference: (CRU) Communication to WHO from Roussel Uclaf, , , 21 May 1992) **WHO Comment : Glafenine, a quinolylanthranilate derivative, was introduced in 1965 for use as an analgesic. By the late 1970s its use had been associated with severe allergic responses, including anaphylactoid reactions, which led to its withdrawal in one country whereas in others a warning to this effect is required in the product information. In 1992, on the advice of the Committee for Proprietary Medicinal Products of the European Communities, glafenine was eventually withdrawn worldwide by the major manufacturer.**

Product Name **Glucosamine sulfate**

C.A.S. number **3416-24-8**

Scientific and common names, and synonyms

CHITOSAMINE SULFATE

D-GLUCOSE, 2-AMINO-2-DEOXY-, SULFATE

2-AMINO-2-DEOXY-BETA-D-GLUCOPYRANOSE SULFATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1986**	Following reports of local hypersensitivity reactions, preparations containing glucosamine sulfate are no longer approved for intra-articular administration.
EGY	**1987**	Preparations of glucosamine sulfate for intra-articular injection will not be considered for registration because of an unacceptable potential to cause allergic reactions. (Reference: (EGYDI) Drug Information, 5(3), 1, 1987) **WHO Comment : Glucosamine is found in chitin, mucoproteins and mucopolysaccharides. It is used as a pharmaceutical aid. Glucosamine sulfate has been used in the treatment of rheumatic disorders though it is not widely marketed**

Product Name **Glucosamine sulfate**

C.A.S. number **3416-24-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		for this purpose.

Product Name **Glutethimide**

C.A.S. number **77-21-4**

Scientific and common names, and synonyms

GLUTEMIDE

2-ETHYL-2-PHENYLGLUTARIMIDE

2,6-PIPERIDINEDIONE, 3-ETHYL-3-PHENYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1980**	Withdrawn from the market.
ZWE	**Nov 1984**	Prohibited for use. (Reference: (ZWESI) Statutory Instrument, 366, , Nov 1984)
PAK	**1988**	Products containing glutethimide were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988) **WHO Comment : Glutethimide, a piperidine derivative, was introduced in 1955 for use as a sedative-hypnotic drug. Its addiction liability and severity of withdrawal symptoms are equal to those of the barbiturates and it is controlled under Schedule III of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Glutoxim**

C.A.S. number **2003-0-1002**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARM	**Sep 2000**	The Armenian Drug and Medical Technology Agency did not approve the marketing of the new immunomodulating agency on grounds of doubtful safety and incomplete clinical trial. (Reference: (ARMCW) Communication to WHO, , , 31 Aug 2001)

Product Name **Grepafloxacin hydrochloride**

C.A.S. number **161967-81-3**

Scientific and common names, and synonyms

OPC-17116

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Grepafloxacin hydrochloride**

C.A.S. number **161967-81-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Oct 1999**	Grepafloxacin (Raxar) was voluntarily withdrawn from the market by the licence holder from the market because of a small number of severe cardiac arrhythmias among patients in post-marketing surveillance. (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)
LTH	**Nov 1999**	Marketing authorization for grepafloxacin was suspended by the State Medicines Control Agency. (Reference: (LTHMCA) Order of State Medicines Control Agency, No. 96, , 15 Nov 1999)
PER	**Dec 1999**	La Direcciòn General de Medicamentos, Insumos y Drogas (DIGEMID) of the Ministry of Health has communicated to health professionals that Glaxo Wellcome has voluntarily withdrawn the fluoroquinolone grepafloxacin from the market because of prolongation of the QT interval giving rise to ventricular arrhythmias known as torsades de pointes. (Reference: (PERDGM) Alerta DIGEMID, No. 12-99, , 15 Dec 1999)
ARM	**Jul 2000**	Grepafloxacin has been voluntarily withdrawn after the observation of severe cardiovascular events among patients. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
SGP		Grepafloxacin has been voluntarily withdrawn due to an effect of the drug on cardiac repolarization, manifested as QT interval prolongation. Some patients may be at risk of the very rare but serious ventricular arrhythmia known as torsades de pointes. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Griseofulvin**

C.A.S. number **126-07-8**

Scientific and common names, and synonyms

7-CHLORO-2',4,6-TRIMETHOXY-6'BETA-METHYLSPIRO(BENZOFURAN-2(3H),1'-(2) CYCLOHEXENE)-3,4'-DIONE

SPIRO(BENZOFURAN-2(3H), 1'-(2)CYCLOHEXENE)-3,4'-DIONE, 7-CHLORO-2',4,6- TRIMETHOXY-6'-METHYL-,(1'S-TRANS)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**1986**	Having regard to recently evaluated reports of carcinogenicity, fetotoxity and teratogenicity in rodents administered very high doses of griseofulvin, the Committee on the Review of Medicines has recommended that all products containing griseofulvin should be restricted in their use to the treatment of dermatophyte infections of the skin, scalp, hair and nails when topical therapy has failed or is considered inappropriate. It also recommends that such products should not be used during pregnancy or for prophylactic treatment.
DEU	**1992**	Following reports of teratogenicity in experimental animals, the approved product information for products containing griseofulvin was amended to contraindicate their use during pregnancy, except in life-threatening conditions, and lactation. The need for contraceptive measures to be maintained throughout treatment and, for men, for 6 months thereafter was emphasized. (Reference: (DAZ) Deutsche Apotheker Zeitung, 32(12):XII, , 1992) **WHO Comment : Griseofulvin, isolated from a penicillin producing mould, has been widely used as a systemically administered antifungal agent in man for over 20 years. It is effective in dermatophyte infections (including tinea barbae and tinea capitis) but it is inactive against yeasts and bacteria. Evidence that very high doses of griseofulvin are carcinogenic, teratogenic and fetotoxic in laboratory animals has led to an acceptance that it should not be used to treat trivial infections that**

Product Name **Griseofulvin**

C.A.S. number **126-07-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		respond to topical therapy. Oral formulations of griseofulvin are included in the WHO Model List of Essential Drugs. **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Guanofuracin**

C.A.S. number **300-25-4**

Scientific and common names, and synonyms

5-NITROFURFURYLIDENAMINOGUANIDINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Withdrawn from all marketed preparations on the grounds that it has been superseded by safer and more effective preparations.
VEN		Not approved for use and/or sale. **WHO Comment : Guanofuracin, a nitrofuran derivative, was formerly used as an antiinfective agent. It has, however, been superseded by safer compounds and WHO has no information that it remains commercially available.**

Product Name **H1-Antihistamines**

Scientific and common names, and synonyms

HISTAMINE H1 RECEPTOR ANTAGONISTS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1987**	Products containing histamine H1 receptor antagonists indicated for vomiting during pregnancy may only be dispensed on medical prescription, because they have been associated with an increased risk of neonatal pyloric stenosis. H1-antihistamines labelled for other indications should mention pregnancy as a contraindication. (Reference: (BGHBL) Bundesgesundheitsblatt, 30, 186, 1987)
CHE	**28 Mar 1990**	Over-the-counter preparations containing phenothiazine antihistamines indicated for children under one year of age may only be dispensed on medical prescription. The product information directed to physicians must carry a warning stating that caution is recommended in treating children of less than one year of age and that the use of the preparation is clearly contra-indicated under the following circumstances: neonates (particularly premature births), history of apnoeic crises (near-miss-SIDS), SIDS in brothers and sisters and cardiorespiratory problems. The information intended for patients must carry a warning that a doctor is to be consulted before children of less than one year of age are treated. (Reference: (CHEAZ) Schweizer Apotheker Zeitung, 128(11), 311, 1990)
@EC	**13 May 1991**	The Committee for Proprietary Medicinal Products advised that products containing phenothiazines, including alimemazine, mequitazine, oxomemazine and promethazine indicated for the treatment of cough, allergic reactions, motion sickness and for sedation, should not be used in children below the age of one year, having regard to their possible

Product Name **H1-Antihistamines**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		association with sudden infant death syndrome. (Reference: (CPMPDP) Draft Position Statement on Phenothiazines and sudden infant death syndrome, , , 13 May 1991)
BEL		The approved information of products containing histamine H1 receptor antagonists must warn in the section"Precautions" against their administration to children aged less than one year without medical advice, because their sedative effect may be associated with episodes of sleep apnoea. The package leaflets of preparations containing of phenothiazine antihistamine must bear an idential warning in the section "Contra-indications". (Reference: (BELGPI) General Pharmaceutical Inspectorate, , , 18 June 1987) **WHO Comment : Histamine H1 receptor antagonists were introduced in 1937 as over-the-counter medicines for the treatment of allergies of the upper respiratory tract and skin. They are also widely used to reduce the symptoms of the common cold, although there is little evidence of their effectiveness in this condition. The sedative and antiemetic effects of antihistamines are of value in the treatment of sleep disorders, motion sickness and vomiting. In 1979, the possibility was raised that the use of phenothiazine antihistamines, particularly promethazine, could be associated with sleep aapnoea in young children and with sudden infant death syndrome (SIDS). Studies carried out subsequently, although they have not established a causal relationship, have led some drug regulatory authorities to subject products containing phenothiazine antihistamines to prescription control and/or to caution against their use in young children. In some countries, similar warnings have also been included in the package leaflets of other H1-antihistamines.**

Product Name **Halofantrine**

C.A.S. number **69756-53-2**

Scientific and common names, and synonyms

9-PHENANTHRENEMETHANOL, 1,3-DICHLORO-?-[2-(DIBUTYLAMINO)ETHYL]-6-(TRIFLUOROMETHYL)-,HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jan 1994**	The National Commission for Pharmacovigilance has contraindicated the use of the antimalarial agent, halofantrine, in patients with congenital or acquired QT prolongation, in those with a family history of congenital QT prolongation, and in patients taking antiarrhythmic medicines or hypokalaemic substances. (Reference: (FRAAMC) Communiqué de Presse, , , 14 Jan 1994) **WHO Comment : Halofantrine is an antimalarial introduced to medicine in 1982. It should be reserved for use in areas where multiple drug-resistant falciparum malaria is prevalent. Cases of serious cardiotoxicity have been reported.**

Product Name **Halogenated hydroxyquinoline derivatives**

C.A.S. number **148-24-3**

Scientific and common names, and synonyms

8-QUINOLINOL

OXYQUINOLINE

OXYQUINOL

Legislative or regulation action

Product Name **Halogenated hydroxyquinoline derivatives**

C.A.S. number **148-24-3**

Scientific and common names, and synonyms

OXINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DNK	**1978**	All halogenated hydroxyquinoline derivatives intended for oral administration have been withdrawn from use. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 1181, 1978)
CYP	**1980**	The Drug Council withdrew all products containing halogenated hydroxyquinoline derivatives intended for internal use due to the possible risk of occurrence of sub-acute myelo-optic neuropathy (SMON) in treated patients.
PHL	**Aug 1980**	Withdrawn from the domestic market due to reports of neurological disorders (SMON) with their use in Japan.
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, these preparations have been banned. Clioquinol is implicated in sub-acute myelo-optic neuropathy (SMON), manifested by pain and persistent diarrhoea and proceeding to bilateral sensory disturbances, paraesthesias and dysaesthesias. Similar toxic effects have been observed with other halogenated hydroxyquinolines. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
GHA	**1982**	All preparations containing halogenated hydroxyquinoline derivatives for oral administration have been withdrawn from use.
TUR	**20 Dec 1982**	Banned for production and sale having regard to severe adverse reactions.
ITA	**1983**	Withdrawn from the market.
GRC	**Mar 1984**	Pharmaceutical products containing halogenated hydroxyquinolines have been withdrawn having regard to experimental and clinical evidence of toxicity.
OMN	**Mar 1987**	Import and marketing of oral and parenteral preparations containing oxyquinoline and its halogenated derivatives intended for the treatment of diarrhoea in children were prohibited. Topical preparations remained on the market. (Reference: (OMNCR) Circular, 11/87, , Mar 1987)
ARE		The following halogenated hydroxyquinoline derivatives used for intestinal amoebiasis are banned: broxyquinoline, clioquinol and diiodohydroxyquinoline.
IND		Currently available on the market. Precautionary information is required to be given with this drug.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Halogenated hydroxyquinoline is structurally related to clioquinol. See WHO comment for clioquinol. **(Reference: (WHODI) WHO Drug Information, 77.1, 9, 1977)**

Product Name **Halogenated salicylanilides**

Scientific and common names, and synonyms

DIBROMSALAN

METABROMSALAN

TRIBROMSALAN

TETRACHLOROSALICYLANILIDE

Legislative or regulative action

Legislative or regulation action

Product Name **Halogenated salicylanilides**

Country	Effective Date	Description of action taken Grounds for decision
USA	**1 Dec 1975**	Withdrawn from the market and prohibited for export in drugs and cosmetic products by the Food and Drug Administration due to the risks of disabling skin disorders and photosensitivity in humans. (Reference: (FEREAC) Federal Register, 40(210), 50527, 1975)
JPN	**Jan 1976**	Banned by the Pharmaceutical Affairs Bureau due to potential for photosensitivity reactions. **WHO Comment : Halogenated salicylanilides, including dibromsalan, metabromsalan, tribromsalan and tetrachlorosalicylanilide, which have antibacterial and antifungal activity, have been used both as active ingredients for antimicrobial purposes and as inactive ingredients (preservatives) in drug and cosmetic products. Their use has been associated with photosensitive eruptions and disabling skin disorders which has resulted in their withdrawal by some national drug regulatory authorities.**

Product Name **Heptabarb**

C.A.S. number **509-86-4**

Scientific and common names, and synonyms

5-(CYCLOHEPT-1-ENYL)-5-ETHYLBARBITURIC ACID

HEPTAMALUM

HEPTABARBITONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1984**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing heptabarb. **WHO Comment : Heptabarb is an intermediate-acting barbiturate. See WHO comment for barbiturates.**

Product Name **Herpes simplex vaccines**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Aug 1984**	Sale of Herpes simplex vaccines has not been approved by the National Control Authority having regard to their potential hazards.
SAU		Preparations containing Herpes simplex vaccines have been withdrawn from the market.
VEN		Not approved for use and/or sale. **WHO Comment : Preparations containing Herpes simplex vaccine have been available for at least 15 years. As a result of a review of unlicensed products marketed in the Federal Republic of Germany in 1984 the National Control Authority banned the use of such preparations having regard to their potential harmfulness. Preparations remain available elsewhere, however.**

Product Name **Hexachlorophene**

Legislative or regulation action

C.A.S. number **70-30-4**

Scientific and common names, and synonyms

HEXACHLOROPHANE

PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

2,2'-METHYLENEBIS(3,4,6-TRICHLOROPHENOL)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**1972**	All talcum powders for infant use containing more than 0.75% hexachlorophene were withdrawn. All other products with a greater concentration shall be available on prescription basis only.
JPN	**Mar 1972**	Banned by the Pharmaceutical Affairs Bureau in preparations such as nursing powder, since edema of the brain is observed with test animals. Export is prohibited.
TUR	**1981**	Withdrawn from all toothpaste formulations by the Ministry of Health due to published evidence of its harmful effects. Export of this product is prohibited.
COE	**1984**	The Committee of Experts on Cosmetics of the Council of Europe has reclassified hexachlorophene in the list of preservatives published in the second edition 1984 of "Cosmetic Products and their Ingredients" from class A (recommended) to class D (not recommended). Hexachlorophene is now considered an ingredient which, on the basis of information provided, presents a health hazard and which therefore is not recommended for use in cosmetic products. (Reference: (COECI) Cosmetic products and their ingredients 2nd edition, , , 1984)
SUN	**25 Aug 1988**	Pharmaceutical products containing hexachlorophene are prohibited for production and use on grounds of teratogenicity, embryotoxicity, neurotoxicity, photosensitizing and allergic potential.
PER		Prohibited for use in hygienic preparations with the exception of deodorants, which may contain as much as 0.1%, and antiseptic soaps, which may contain 0.2% of hexachlorophene.
THA		The use of pharmaceutical preparations containing hexachlorophene is severely restricted. **WHO Comment : Hexachlorophene, an antimicrobial agent, was introduced in 1948 in proprietary liquid preparations and powders and was subsequently used extensively as a topical antiseptic. By the early 1970s its use in infants had been conclusively demonstrated to cause encephalopathy as a result of transdermal absorption. More recently it has been suggested that the drug has a teratogenic potential. Many regulatory authorities have placed rigorous restrictions on the medicinal use of hexachlorophene, particularly in preparations intended for infants. However, its use still commonly remains permissible at low concentrations as a preservative in toiletries and cosmetics.** **(Reference: (WHODI) WHO Drug Information, 3, 6, 1978)**

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Product Name **Hexestrol**

C.A.S. number **5635-50-7**

Scientific and common names, and synonyms

DIHYDROSTILBOESTROL

HEXOESTROL

SYNESTROL

4,4'-(1,2-DIETHYLETHYLENE)DIPHENOL

4-4 1-(1,2-DIETHYL-1,2-ETHANEDIYL)BIS[PHENOL]

Legislative or regulative action

Legislative or regulation action

Product Name **Hexestrol**

C.A.S. number **5635-50-7**

Country	Effective Date	Description of action taken Grounds for decision
AUT	**Feb 1977**	Pharmaceutical specialities containing diethylstilbestrol, dienestrol, hexestrol and their derivatives have been withdrawn following reports indicating an association between prenatal exposure to diethylstilbestrol and the subsequent development of adenocarcinoma in postpubertal girls and young women. The use of stilbene derivatives is only authorized for the treatment of cancer of the prostate.
ITA	**1979**	This product has been withdrawn from the market due to suspected carcinogenicity in newborns following prenatal exposure.
KWT	**Jan 1980**	Prohibited for import.
ARM	**Sep 2000**	The Armenian Drug and Medical Technology Agency did not approve the marketing of this product on grounds of risk of carcinogenicity and withdrew the product from the entire market. (Reference: (ARMCW) Communication to WHO, , , 31 Aug 2001)
SAU		Following reports indicating the development of adenocarcinoma in post-pubertal girls and young women exposed prenatally to preparations containing diethylstilbestrol, dienestrol and their derivatives, the Drug Committee prohibited the use of these products during pregnancy.
VEN		Not approved for use and/or sale.
		WHO Comment : Hexestrol is a stilbene derivative. See WHO comment for diethylstilbestrol. **(Reference: (WHODI) WHO Drug Information, 77.1, 16, 1977)**

Product Name **Hexobarbital**

C.A.S. number **56-29-1**

Scientific and common names, and synonyms

5-(CYCLOHEX-1-ENYL)-1,5-DIMETHYLBARBITURIC ACID

5-(1-CYCLOHEXEN-1-YL)-1,5-DIMETHYLBARBITURIC ACID

HEXOBARBITONE

2,4,6(1H,3H,5H)-PYRIMIDINETRIONE, 5-(1-CYCLOHEXEN-1-YL)-1,5-DIMETHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Oct 1984**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing hexobarbital.
		WHO Comment : Hexobarbital is a short-acting barbiturate. See WHO comment for barbiturates.

Product Name **Human dura mater**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**30 Dec 1997**	In order to minimize the risk of transmission of pathogens of spongiform encephalopathies (e.g. Creutzfeldt-Jakob disease), the Federal Institute for Drugs and Medical Devices has restricted the indications for medicinal products containing freeze-dried human dura mater "soft" to : use in neuro- surgery if autologous tissue is not

Product Name **Human dura mater**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		available in sufficient quantities or not sufficiently stable, and when synthetic materials are not indicated; use in paediatric surgery for omphalocele/gastroschisis or in tracheal stenosis when autologous tissue is not available in sufficient quantities, and when synthetic materials are not indicated. At the same time, strict criteria for the selection of donors have been implemented. (Reference: (DEUCFI) Communication, , , 30 Dec 1997)

Product Name **Hyaluronidase**

C.A.S. number **9001-54-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SLV	**Jun 2001**	Injections for intramuscular or subcutaneous use were withdrawn from sale nationally because of incomplete data on BSE risk. (Reference: (SLVCW) Communication to WHO, , , 24 Aug 2001)

Product Name **Hydroquinidine**

Scientific and common names, and synonyms

DIHYDROQUINIDINE

(ETHYL-5 QUINUCLIDINYL-2(2)) (METHOXY-6' QUINOLYL-(4))

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**14 Jan 1994**	The Ministry of Health has issued a decree reclassifying the antiarrhythmic, hydroquinidine (Serecor®: Houde), as a prescription medicine available only on non-renewable prescription unless otherwise indicated by the prescriber. This action brings hydroquinidine in line with other antiarrhythmics which are all subject to prescription control, with the exception of the related product, quinidine. The need for reclassifying the latter drug remains under consideration. (Reference: (FRARP) La Revue Prescrire, 14(141):338, , 1994) (Reference: (FRAAM) Arrêté ministériel of 14 January 1994, , , 02 Feb 1994)

Product Name **Hydroquinone**

C.A.S. number **123-31-9A**

Scientific and common names, and synonyms

HYDROCHINONUM, BENZENE-1,4-DIOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NGA	**1 Feb 1982**	The manufacture, import, export, distribution and sale of any cosmetic products containing hydroquinone in amounts exceeding 5% (w/w) are prohibited. Reasons for the decisions: There has been gross misuse for skin bleaching purposes of hydroquinone-containing cosmetic products, many of which contain over 5% hydroquinone.

Product Name **Hydroquinone**

C.A.S. number **123-31-9A**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (AARNO) Administrative Action, FDA/RU/242-2, 171, Dec 1982)
DEU	**1991**	The Federal Health Office has restricted the use of products containing hydroquinone to pathological hyperpigmentation. Children under 12 years of age should not be treated. (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(42), , 1991) **WHO Comment : Hydroquinone was introduced in 1965 as a topical depigmenting agent for hyperpigmentation. At high concentrations hydroquinone is corrosive and in most countries has been restricted to the level of approximately 2% and limited to the period of less than 2 months. Additional consideration for restrictive action is that animal experiments have also demonstrated carcinogenic and mutagenic potential of hydroquinone.**

Product Name **Hyoscine methonitrate**

C.A.S. number **6106-46-3**

Scientific and common names, and synonyms

HYOSCINE METHYLNITRATE

METHYLSCOPOLAMINE NITRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jun 1981**	Hyoscine methonitrate, an antimuscarinic agent, has been withdrawn from appetite suppressant preparations. **WHO Comment : Hyoscine methonitrate, a quaternary ammonium anticholinergic agent, was introduced in 1947 for use as a gastrointestinal antispasmodic. The action taken in Sweden relates to the use of this compound in preparations for suppressing the appetite. Preparations may remain available elsewhere.**

Product Name **Ibopamine**

C.A.S. number **66195-31-1**

Scientific and common names, and synonyms

PROPANOIC ACID, 2-METHYL-, 4-[2-(METHYLAMINO)ETHYL]-1,2-PHENYLENE ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**Sep 1995**	The Committee for the Evaluation of Medicines has restricted the indications for ibopamine to mild cardiac insufficiency in combination with diuretics. Treatment must be withdrawn gradually if the symptoms worsen. (Reference: (NPHWB) Pharmaceutisch Weekblad, 130(37/38) , p. 999, 1995) **WHO Comment : Ibopamine belongs to the group of dopaminergic drugs, i.e., agents stimulating the dopaminergic system and potentiating the effects of the neurotransmitter dopamine.**

Product Name **Ibuprofen**

C.A.S. number **15687-27-1**

Product Name **Ibuprofen**

C.A.S. number **15687-27-1**

Scientific and common names, and synonyms

2-(4-ISOBUTYLPHENYL)PROPIONIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Feb 1992**	The Federal Health Office has amended the approved product information for a tropical formation of the non-steroidal anti-inflammatory agent, ibuprofen. The contraindications were extended to include patients with a history of allergy and children under 6 years of age. (Reference: (BGHBL) Bundesgesundheitsblatt, 2/92, 109, Feb 1992) **WHO Comment : Ibuprofen, a non-steroidal anti-inflammatory agent, was introduced in 1969. It was approved for sale without prescription in packages containing no more than 400 mg, in the United Kingdom in 1983. This action was followed by the USA, Canada and several European countries. Since this time reports of suspected adverse effects have increased. Most of these relate to gastro-intestinal disturbances, hypersensitivity reactions but aseptic meningitis, skin rashes and renal damage have been recorded.**

Product Name **Indalpine**

C.A.S. number **63758-79-2**

Scientific and common names, and synonyms

2-(3-(4-PIPERIDYL)ETHYL)INDOLE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**13 Jul 1985**	Following reports of agranulocytosis and severe neutropenia associated with the use of indalpine, the major manufacturer in consultation with the French health authorities decided to suspend the marketing of this drug. (Reference: (FMOPL) Le Moniteur des Pharmacies et des Laboratoires, 1666, , June 1985) **WHO Comment : Indalpine, an antidepressant with serotoninergic action, was introduced in 1983 and marketed exclusively in France. In 1984 its use was associated with cases of leucopenia and agranulocytosis which led to the voluntary suspension of clinical trials in the USA. In 1985 the major manufacturer voluntarily withdrew the drug from the market.**

Product Name **Indometacin and indometacin farnesil**

C.A.S. number **53-86-1**

Scientific and common names, and synonyms

1H-INDOLE-3-ACETIC ACID, 1-(4-CHLOROBENZOYL)-5-METHOXY-2-METHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**May 1994**	The Pharmaceutical Affairs Bureau has amended the approved product information for indometacin to include convulsions in the list of adverse reactions. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.126, , May 1994)
JPN	**Oct 1996**	The data sheet for indometacin farnesil has been revised to include in the section on serious adverse effects haemorrhagic colitis as well as perforation of pre-existing sigmoid

Product Name **Indometacin and indometacin farnesil**

C.A.S. number **53-86-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		lesions. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.139, , Oct 1996) **WHO Comment : Indometacin was introduced in 1963 and it is one of the first NSAIDs. Convulsions are rarely reported in relation with the use of this group of agents. Indometacin farnesil is a pro-drug of indometacin, and the occurrence of gastro-intestinal adverse effects could be expected. See also under nonsteroidal antiinflammatory agents.**

Product Name **Indoprofen**

C.A.S. number **31842-01-0**

Scientific and common names, and synonyms

BENZENEACETIC ACID, 4-(1,3-DIHYDRO-1-OXO-2H-ISOINDOL-2-YL)-ALPHA-METHYL

P-(1-OXO-2-ISOINDOLINYL)HYDRATROPIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CYP	**Dec 1983**	Withdrawn from the market following reports of serious adverse gastrointestinal reactions.
GBR	**Dec 1983**	Withdrawn from the market following reports of serious adverse gastrointestinal reactions.
@WD	**1984**	The nonsteroidal anti-inflammatory drug, indoprofen, was voluntarily withdrawn worldwide by the manufacturer following the demonstration of tumours in a carcinogenicity study undertaken in rats.
CHL	**Jul 1984**	Voluntarily withdrawn by the manufacturer.
DEU	**Jul 1984**	The Federal Health Office, in agreement with the manufacturer, withdrew products containing indoprofen on an interim basis pending an evaluation of the results of a recently undertaken carcinogenicity study.
ITA	**Jul 1984**	The manufacturer withdrew all formulations of indoprofen following decisions by the Ministry of Health to suspend promotion and disallow repeat prescriptions pending further evaluation of the safety of the drug. **WHO Comment : Indoprofen, a nonsteroidal anti-inflammatory agent, was introduced in 1976 for the treatment of rheumatic disorders. By 1983 its use had been associated with serious adverse effects, some of which were fatal. This led to its withdrawal in the United Kingdom and Cyprus. In 1984 reports of intestinal tumours in rats led to the drug's temporary withdrawal in Germany and Italy. This was followed immediately by the suspension of marketing worldwide by the major manufacturer.**

Product Name **Iodinated casein strophanthin (neo-barine)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Oct 1964**	Withdrawn from the market and prohibited for export by the Food and Drug Administration due to the risk of thyrotoxic side effects. This drug was marketed as an appetite suppressant.

Product Name **Iodinated casein strophanthin (neo-barine)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : The World Health Organization has no information further to the above regarding preparations containing iodinated casein strophanthin or to indicate that they are still commercially manufactured.

Product Name **Iproniazid**

C.A.S. number **54-92-2**

Scientific and common names, and synonyms

ISONICOTINIC ACID 2-ISOPROPYLHYDRAZIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy.
		WHO Comment : Iproniazid, a monoamine oxidase inhibitor (MAOI), was introduced in 1952 for the treatment of depressive illness. Subsequently concern regarding potentially serious interactions between MAOIs and foods containing tyramine inspired much restrictive regulatory action. However, MAOIs still retain a place in the treatment of serious depressive illness although there is no international consensus on which compounds should be preferred. Thus iproniazid remains available in several countries.

Product Name **Isaxonine phosphate**

C.A.S. number **4214-72-6**

Scientific and common names, and synonyms

2-(ISOPROPYLAMINO)PYRIMIDINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**25 Jun 1983**	Isaxonine phosphate has been withdrawn following the occurrence of toxic hepatitis associated with its use.
TUN		Not approved for registration on grounds of safety.
		WHO Comment : Isaxonine phosphate was introduced in 1981 and marketed exclusively in France for the treatment of peripheral neuropathy. In January 1983 indications for use were restricted following its association with cases of toxic hepatitis. It was subsequently withdrawn in June 1983.

Product Name **Isocarboxazid**

C.A.S. number **59-63-2**

Scientific and common names, and synonyms

5-METHYL-3-ISOXAZOLECARBOXYLIC ACID 2-BENZYLHYDRAZIDE

3-ISOXAZOLECARBOXYLIC ACID, 5-METHYL-, 2-(PHENYLMETHYL)HYDRAZIDE

Legislative or regulative action

Legislative or regulation action

Product Name **Isocarboxazid**

C.A.S. number **59-63-2**

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Nov 1974**	The Ministry of Health and Welfare has withdrawn all products containing isocarboxazid and nialamide on the grounds that they lack substantial evidence of efficacy and safety.
CUB		Prohibited from use by the National Formulary Commission (1982) on grounds of reported toxicity and in view of the availability of other less toxic drugs.
SAU		Products now controlled by the authorities.
VEN		Not approved for use and/or sale.
		WHO Comment : Isocarboxazid, a monoamine oxidase inhibitor (MAOI), was introduced in 1959 for the treatment of depressive illness. Subsequently concern regarding potentially serious interactions between MAOIs and foods containing tyramine inspired much restrictive regulatory action. However, MAOIs still retain a place in the treatment of serious depressive illness although there is no international consensus on which compounds should be preferred. Thus isocarboxazid remains available in several countries and is cited in the British National Formulary as a relatively safe example of this class of compound.

Product Name **Isoprenaline**

C.A.S. number **7683-59-2**

Scientific and common names, and synonyms

ISOPROTERENOL

ISOPROPYLNORADRENALINE

ISOPROPYLARTERENOL

1-(3,4-DIHYDROXYPHENYL)-2-ISOPROPYLAMINOETHANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale inhalers containing the beta-adrenoreceptor agonist, isoprenaline, because of its potential to induce serious cardiovascular adverse effects. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992)
		WHO Comment : Isoprenaline, a beta-adrenoreceptor agonist, was introduced in 1949 as treatment for a number of cardiac disorders and as a bronchial dilator for the symptomatic treatment of asthma. There is evidence that regular inhalation of bronchodilator drugs is associated, in some cases with exacerbation of the disease and with increased fatality rates. The underlying causes are disputed, but an increasing body of opinion now advocates regular maintenance therapy with inhaled, corticosteroids coupled with supplementary use as required of bronchial drugs to suppress exacerbations.

Product Name **Isotretinoin**

C.A.S. number **4759-48-2**

Scientific and common names, and synonyms

RETINOIC ACID, 13-CIS

3,7-DIMETHYL-9-(2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-YL)2-CIS-4-TRANS-6- TRANS-8-TRANS-NONATETRAENOIC ACID

Legislative or regulative action

Legislative or regulation action

Product Name **Isotretinoin**

C.A.S. number **4759-48-2**

Country	Effective Date	Description of action taken Grounds for decision
AUS	**1984**	Isotretinoin is approved only for the treatment of severe cystic acne unresponsive to conventional therapy. In most states the availability of products is restricted to prescription by specialist physicians. Labels and product literature carry a warning that "This product causes birth defects". Warning letters have been circulated to doctors and pharmacists concerning necessary precautions. Government approved patient information leaflets and patient consent forms have been issued. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, No.116, , Nov 1984)
USA	**Aug 1985**	Having regard to its teratogenicity, isotretinoin should be used only for severe cystic acne refractory to conventional therapies. (Reference: (FDADB) FDA Drug Bulletin, (2), , 1985)
OMN	**24 Dec 1985**	Having regard to its teratogenicity, isotretinoin may only be used under the supervision and control of a hospital dermatologist. (Reference: (OMNMH) Ministry of Health, 5, , 1985)
MYS	**1988**	The Drug Control Authority has decided that the labelling of preparations containing isotretinoin should bear a distinct warning regarding teratogenicity, emphasizing that effective contraceptive measures must be instituted throughout treatment and for at least four weeks thereafter, and additional reference is also required to the following adverse effects: symptoms of hypervitaminosis-A; transient and reversible elevation of transaminases and alkaline phosphatases; bone changes after long-term high dosage; benign intracranial hypertension. (Reference: (MYSPR) Ministry of Health Press Release, 2, 3, 1988)
BEL	**1 Jan 1988**	Preparations containing isotretinoin have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and crossbones label. They must bear a warning regarding the embryotoxicity and teratogenicity of the drug which contraindicates its use during pregnancy. (Reference: (BELAR) Arrêté Royal, , , June 1987)
FRA	**Apr 1997**	Having regard to the known teratogenic risks of isotretinoin, the Ministry of Health and the Medicines Agency have decided to reinforce the prescription requirements to ensure that patients are informed of the teratogenic risk and of the necessity for contraceptive measure before, during and after treatment. The physician must ensure that pregnancy tests are performed at indicated intervals. (Reference: (FRAAMC) Communiqué de Presse, , , 11 Apr 1997)
EGY		The Technical Committee for Drug Controls has issued a statement that preparations containing isotretinoin should not be used during pregnancy. Product information must include a warning that paronychia can develop during treatment.
ESP		Contraindications to isotretinoin must include a boxed paragraph stating that the drug may only be used in women of child-bearing age when an effective method of contraception assures protection during and for at least four weeks after discontinuation of treatment. Pregnancy must be excluded before initiation of treatment.
NLD		The Ministry of Welfare, Public Health and Culture has stressed that isotretinoin should be prescribed only for serious forms of acne resistant to other treatment. Pregnancy should be excluded prior to treatment and conception prevented during treatment. (Reference: (GENMB) Geneesmiddelenbulletin, 18(9), , 1984)
NZL		Having regard to its teratogenicity, isotretinoin is indicated only in severe nodulo-cystic acne resistant to other forms of therapy. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 232, , Feb 1985)
TUN		Having regard to its teratogenicity, isotretinoin should be used only for its recommended indications under the strict supervision of the prescribing doctor.
		WHO Comment : Isotretinoin, a retinol derivative, was introduced in 1982

Legislative or regulation action

Product Name **Isotretinoin**

C.A.S. number **4759-48-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		exclusively for the treatment of severe acne. Its use in pregnant women has resulted in major fetal abnormalities. The manufacturer's information emphasizes that the drug is teratogenic and must not be given to women who are pregnant, and that contraceptive measures must be maintained for at least four weeks after discontinuation of treatment. In some countries, blood banks are advised not to accept as donors persons who have taken isotretinoin within the previous four weeks. See also under retinol (vitamin A).

Product Name **Isoxicam**

C.A.S. number **34552-84-6**

Scientific and common names, and synonyms

2H-1,2-BENZOTHIAZINE-3-CARBOXIMIDE, 4-HYDROXY-2-METHYL-N-(5-METHYL-3- ISOXAZOLYL)-, 1,1-DIOXIDE

4-HYDROXY-2-METHYL-N-(5-METHYL-3-ISOXAZOLYL)-2H-1,2-BENZOTHIAZINE-3- CARBOXAMIDE 1,1-DIOXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Oct 1985**	The Federal Health Office has suspended approval of preparations containing isoxicam pending further evaluation of reported adverse reactions.
ITA	**Oct 1985**	Following discussions with the National Health Council, the manufacturer has withdrawn all preparations containing isoxicam pending further evaluation of the reported adverse reactions.
FRA	**11 Oct 1985**	The French Health Authorities have suspended marketing of products containing isoxicam following reports of rare but severe dermatological reactions.
@WD	**31 Oct 1985**	Marketing of the nonsteroidal antiinflammatory drug isoxicam was suspended worldwide by the major manufacturer in October 1985 after it had been withdrawn in France on 11 October 1985 following reports of severe skin reactions, some of which were fatal.
OMN	**8 Jan 1986**	Import and sale of isoxicam have been prohibited. (Reference: (OMNMH) Ministry of Health, 1, , 1986) **WHO Comment : Isoxicam, a nonsteroidal anti-inflammatory agent, was introduced in 1983 for the treatment of rheumatic disorders. By 1985 its use had been associated with serious adverse effects, including four deaths from rare skin reactions. This led to its withdrawal in France followed immediately by the voluntary suspension of marketing worldwide by the major manufacturer.**

Product Name **Kaolin**

C.A.S. number **1332-58-7**

Scientific and common names, and synonyms

ALBA

BOLUS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IND	**11 Feb 1991**	The Central Government banned the manufacture and sale of combinations of fixed doses of kaolin with any other drug.

Product Name **Kaolin**

C.A.S. number **1332-58-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (INDC) Drugs Controller, , , Mar 1992)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale all liquid preparations containing kaolin. Kaolin has doubtful efficacy and its use may lead to increased salt and water loss. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992) **WHO Comment : Kaolin, a hydrated aluminium silicate, is an absorbent and has been used to treat diarrhoea because of its ability to bind and inactivate bacterial toxins. However, it has been shown to induce only a slight change in stool consistency and there is no evidence that it can reduce the duration or the severity of diarrhoeal disease. It does not reduce fluid and electrolyte losses. It cannot be recommended in the treatment of diarrhoea.**

Product Name **Kebuzone**

C.A.S. number **853-34-9**

Scientific and common names, and synonyms

4-(3-OXOBUTYL)-1,2-DIPHENYL-3,5-PYRAZOLIDINEDIONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1985**	Indications are restricted to inflammatory degenerative rheumatism, chronic polyarthritis, ankylosing spondylitis, arthroses, neuritis and neuralgia such as lumbago and sciatica, acute gout, soft tissue rheumatism, painful bruising or post-traumatic inflammation and thrombophlebitis. A single course of treatment should not exceed three months. Preparations are contraindicated in children under six years of age.
OMN	**Sep 1986**	The Ministry of Health has prohibited the import of preparations containing kebuzone except those intended for topical use.
AUT		Indications restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984) **WHO Comment : Kebuzone, a pyrazolone derivative with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1973 for the treatment of rheumatic disorders. As it is structurally related to phenylbutazone it is subjected to rigorously restricted indications by some national regulatory authorities. See WHO comment for phenylbutazone.**

Product Name **Ketamine hydrochloride**

C.A.S. number **1867-66-9**

Scientific and common names, and synonyms

CN-52372-2

CL-581

KETAMINI HYDROCHLORIDUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Ketamine hydrochloride**

C.A.S. number **1867-66-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		The National Pharmaceutical Administration in the Ministry of Health has rescheduled ketamine as a narcotic drug because of its high abuse potential. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Ketoconazole**

C.A.S. number **65277-42-1**

Scientific and common names, and synonyms

(+/-)-CIS-1-ACETYL-4-[P-[[2-(2,4-DICHLORPHENYL)-2-(IMIDAZOL-1-YLMETHYL)-1,3-DIOX-OLAN-4-YL]METHOXYLPHENYL]PIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**04 Apr 1988**	Products containing ketoconazole were allowed to be used only under the supervision of a hospital physician. (Reference: (OMNCR) Circular, 11/88, , Apr 1988) **WHO Comment : Ketoconazole, an imidazole antifungal agent, was introduced in 1978 for the topical and systemic treatment of a wide variety of fungal infections. Its use by mouth has been associated with hepatotoxicity, including cases of hepatitis, which have usually been reversible on discontinuation of the drug, but some fatalities have also occurred. Ketoconazole is widely marketed.**

Product Name **Ketorolac**

C.A.S. number **74103-06-3**

Scientific and common names, and synonyms

H-PYRROLIZINE-1-CARBOXYLIC ACID, 5-BENZOYL-2,3-DIHYDRO, (+/-)-, COMPOUND WITH 2-AMINO-2-(HYDROXYMETHYL)-1,3-PROPANEDIOL (1:1)

KETOROLAC TROMETHAMINE

KETOROLAC TROMETAMOL

1H-PYRROLIZINE-1-CARBOXYLIC ACID, 5-BENZOYL-2,3-DIHYDRO, (±)-, COMPOUND WITH2-AMINO-2-(HYDROXYMETHYL)-1,3-PROPANEDIOL (1:1)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@EC	**Jun 1993**	The Committee on Proprietary Medicinal Products recommended restrictions in dosage and use pending further analysis of data concerning some 80 fatalities associated with its use. (Reference: (CPMPPO) Pharmacovigilance Opinion, No.15, , 16 June 1993)
DEU	**Jun 1993**	The Federal Health Office in Germany withdrew the marketing authorization for the nonsteroidal anti-inflammatory agent, ketorolac, on the basis of a high number of reports of severe adverse reactions including renal failure, some of which were fatal. (Reference: (DEUFHO) Communication from Federal Health Office, , , 17 June 1993)
GBR	**Jun 1993**	The Committee on Safety of Medicines has revised the labelling for ketorolac to reduce the recommended dose and duration of treatment, in accordance with the CPMP. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol. 19, , June 1993)
MYS	**Sep 1993**	Following regulatory actions restricting the approved uses of ketorolac trometamol in

Product Name **Ketorolac**

C.A.S. number **74103-06-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		Canada, the United States and some other countries within the European Union, the Drug Control Authority has decided to restrict the indications for the intramuscular 30mg/ml injectable formulation of this product and to revise the labelling for all products. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 7(3): 3, , Sep 1993)
FRA	**Dec 1993**	The Ministry of Health in France suspended the marketing authorization for the nonsteroidal anti-inflammatory agent, ketorolac, in view of the high frequency and seriousness of adverse drug reactions reported from the National Commission for Pharmacovigilance. (Reference: (FRAAMC) Communiqué de Presse, , , 14 Jan 1994)
NZL	**Dec 1994**	A parenteral dose of 120mg in 24 hours should not be exceeded in any patient, and this dose should be halved in the mildly renally impaired and the elderly. Ketorolac is contraindicated in patients with more severe renal impairment (serum creatinine > 180 µmol/L). The duration of use should be limited to two days for parenteral administration or a total of seven days if a switch is made to oral use. (Reference: (NZLPU) Prescriber Update, No.7, , Dec 1994)
JAM	**1998**	The Ministry of Health, Standards and Regulation did not approve registration of the non-steroidal anti-inflammatory drug, ketorolac due to adverse effects. (Reference: (JAMMHS) Communication to WHO, , , 26 Sep 2000)
		WHO Comment : Ketorolac is a nonsteroidal anti-inflammatory agent used in the management of moderate to severe acute post-operative pain. It remains on the market in many countries with restrictions on its use.

Product Name **Laetrile**

C.A.S. number **29883-15-6**

Scientific and common names, and synonyms

AMYGDALIN

VITAMIN B17

(O-(6-O-BETA-D-GLUCOPYRANOSYL-BETA-D-GLUCOPYRANOSIDE)-D-MANDELONITRILE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**20 Feb 1986**	The Australian Drug Evaluation Committee has recommended that import of preparations containing laetrile for use in cancer therapy be prohibited due to lack of efficacy, definite serious toxicity and absence of knowledge of metabolism, excretion and serum levels. Its use on an individual basis is under review. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, 122, 13, 1986)
USA	**24 Mar 1987**	Preparations containing laetrile have the same status as other unapproved drugs and as such importation is prohibited.
		WHO Comment : Laetrile, which consists mainly of amydgalin, a glycoside extracted from the kernels of apricots, peaches and other fruits, has been available for over 30 years in preparations purporting to be beneficial in the treatment of cancer. Although there is no evidence that these are efficacious, preparations continued to be widely used and, until the late 1970s, they were considered to be harmless. However, oral dosage forms, which may be broken down in the gut to hydrogen cyanide, have subsequently been shown to be potentially lethal. This has resulted in restrictive regulatory measures in several countries.

Product Name **Lamivudine**

C.A.S. number **134678-17-4**

Scientific and common names, and synonyms

(-)-2?DEOXY-3?-THIACYTIDINE

3TC

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		The National Pharmaceutical Administration in the Ministry of Health has restricted the use of lamivudine for the treatment of chronic hepatitis B to gastroenterologists only. This decision has been taken because prolonged treatment may result in the emergence of resistant strains. Furthermore post-treatment hepatitis that can be fatal in patients with poor hepatic function or cirrhosis has been observed in patients after withdrawal of therapy. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Lamotrigine**

C.A.S. number **84057-84-1**

Scientific and common names, and synonyms

1,2,4-TRIAZINE-3,5-DIAMINE, 6-(2,3-DICHLOROPHENYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Oct 1996**	The Committee on Safety of Medicines issued a warning concerning serious skin reactions, particularly in young children, associated with lamotrigine. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol.22, p.10, Oct 1996)
AUS	**24 Oct 1997**	The Adverse Drug Evaluation Committee has recommended that a boxed warning be included in the labelling for the anticonvulsant, lamotrigine, stating that severe, potentially life-threatening rashes have been reported in association with this product, particularly in children, and that lamotrigine should be discontinued at the first sign of rash unless the rash is clearly not drug related. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, Res No. 7255, , 24 Oct 1997) **WHO Comment : Lamotrigine is a relatively new antiepilepsy agent acting through stabilization of neuronal membranes and preventing liberation of neurotransmitters.**

Product Name **Latamoxef**

C.A.S. number **64952-97-2**

Scientific and common names, and synonyms

5-OXA-1-AZABICYCLO(4.2.0)OCT-2-ENE-2-CARBOXYLIC ACID,7-((CARBOXY(4-HYDROXYPHENYL)ACETYL)AMINO)-7-METHOXY-3-((1-METHYL-1H- TETRAZOL-5-YL)THIO)METHYL)-8-OXO-

LAMOXACTAM

MOXALACTAM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1 Jul 1984**	Following reports of spontaneous bleeding and death in patients receiving preparations containing latamoxef, indications will be restricted to serious and life threatening infections such as sepsis and meningitis. **WHO Comment : Latamoxef, a cefamycin antibiotic, was introduced in 1982 for the**

Product Name **Latamoxef**

C.A.S. number **64952-97-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		treatment of serious infections. Its use has subsequently been associated with reports of clinically important haemorrhage, sometimes fatal, and in some countries routine co-administration of vitamin K is advised to minimize this risk.

Product Name **Lead oxide and lead salts**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**21 Feb 1980**	Lead oxide and lead salts have been withdrawn from cosmetics and topically administered medicinal products having regard to the danger of percutaneous absorption and their possible contribution to encephalopathy.
DNK	**30 Jun 1983**	As a result of recorded cases of lead poisoning caused by excessive topical application, all pharmaceutical products containing lead compounds have been withdrawn.
SAU		Prohibited for use in cosmetics and other topical uses, having regard for the danger of percutaneous absorption.
VEN		Not approved for use and/or sale in topical pharmaceutical products.
		WHO Comment : Lead oxides and other lead salts were formerly available in topical preparations which had soothing astringent properties. The toxicity of lead salts by inhalation, ingestion and percutaneous absorption is now conclusively established and the medicinal use of preparations containing lead salts is no longer permitted in many countries.

Product Name **Levacetylmethadol**

C.A.S. number **34433-66-4**

Scientific and common names, and synonyms

(-)-6(DIMETHYLAMINO)-4,4-DIPHENYL-3-HEPTANOL ACETATE (ESTER)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@EC	**2001**	The European Medicines Evaluation Agency (EMEA) has recommended the suspension of the marketing authorization of levacetylmethadol (Orlaam) in view of its pro-arrhythmic potential and the fact that a re-assessment of the risk-benefit profile showed no special advantage for levacetylmethadol over existing alternatives. (Reference: (EMEAPS) Public statement, EMEA/8776/01, , 19 Apr 2001)
USA	**23 Aug 2003**	Product to be withdrawn due to adverse cardiac events; safer alternatives to be adopted. (Reference: (USARLI) "Dear Healthcare Professional " letter, , , 23 Aug 2003)

Product Name **Levamfetamine**

C.A.S. number **156-34-3**

Scientific and common names, and synonyms

LEVAMPHETAMINE

(-)-ALPHA-METHYLPHENETHYLAMINE

Legislative or regulation action

Product Name **Levamfetamine**

C.A.S. number **156-34-3**

Scientific and common names, and synonyms

(-)-ALPHA-METHYLBENZENEETHANAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1973**	Anorectic drugs containing levamfetamine were withdrawn from the market by the Food and Drug Administration due to evidence of abuse and high risk of dependence.
OMN	**May 1991**	Import and marketing of products containing levamfetamine were prohibited. (Reference: (OMNCR) Circular, 16/91, , May 1991)
ARE		Pharmaceutical preparations containing levamfetamine are banned. **WHO Comment : Levamfetamine, an amfetamine derivative, is controlled under Schedule II of the 1971 Convention on Psychotropic Substances. See WHO comment for amfetamine.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Levamisole hydrochloride**

C.A.S. number **16595-80-5**

Scientific and common names, and synonyms

L-TETRAMISOLE HYDROCHLORIDE

LEVAMISOLI HYDROCHLORIDUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
VTN	**Apr 2000**	The Drug Administration of Viet Nam in the Ministry of Health has withdrawn the registration of products with the anthelminthic, levamisole as the active ingredient. The reason for withdrawal is that these products have adverse effects that cause encephalitis and mortality. (Reference: (VTNMHD) Directive, 13(2000), QD-QLD, 27 Apr 2000)

Product Name **Levarterenol**

C.A.S. number **51-41-2**

Scientific and common names, and synonyms

NOREPINEPHRINE

NORADRENALINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1973**	The National Drugs Advisory Board has withdrawn from the market all local anesthetic preparations intended for infiltration anesthesia containing epinephrine 1:50,000 and norepinephrine 1:50,000 alone or in combination. This decision, reached in agreement with the Irish Dental Association, followed reports of serious cardiovascular and cerebrovascular reactions.
SAU		Following published reports of serious cardiovascular and cerebrovascular adverse reactions, preparations for infiltration anaesthesia which contain epinephrine and levarterenol, alone or in combination, are now under review.

Product Name **Levarterenol**

C.A.S. number **51-41-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
VEN		Not approved for use and/or sale for infiltration anesthesia, alone or in combination. **WHO Comment : Vasoconstrictor agents have been in use for many years to prolong duration of action of local anaesthetics, particularly in dentistry. Combination products containing epinephrine or levarterenol in concentrations of 1:80,000 or less remain widely available. See also WHO comment for epinephrine.**

Product Name **Lexipafant**

C.A.S. number **139133-26-9**

Scientific and common names, and synonyms

ETHYL-N-METHYL-N-[A-(2-METHYLIMIDAZOLE[4,5-C]PYRIDIN-1-YL)TOSYL]-L-LEUCINATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
EME	**May 1998**	The European Agency for the Evaluation of Medicinal Products (EMEA) has refused marketing authorization for lexipafant. The Committee for Proprietary Medicinal Products reviewed the data submitted by the company and considered that lexipafant was not approvable for the treatment of severe acute pancreatitis on the basis of the submitted data. (Reference: (EMEAPR) EMEA Press Release, , , 05 May 1998)

Product Name **Lindane**

C.A.S. number **58-89-9A**

Scientific and common names, and synonyms

BENZENE HEXACHLORIDE, GAMMA

CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-,(1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-

GAMMA-1,2,3,4,5,6-HEXACHLOROCYCLOHEXANE

(1 ALPHA,2 ALPHA,3 BETA,4 ALPHA,5 ALPHA,6 BETA)-HEXACHLOROCYCLOHEXANE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**17 Jan 1984**	Products containing lindane are no longer accepted for the treatment of head-lice infestation because of widespread development of resistant strains. They remain available for the treatment of scabies and body or pubic lice.
DEU	**18 Jul 1986**	Use is limited to 0.3% with the exception of shampoo, which may contain up to 1% since exposure time is limited to 4 minutes.
EGY	**1987**	The Technical Committee for Drug Control has restricted the use of lindane to topical treatment of lice and scabies. Products should not contain concentrations greater than 0.3%. (Reference: (EGYDI) Drug Information, 5(2), , 1987)
OMN	**May 1991**	Import and marketing of external preparations containing lindane in concentrations greater then 0.3% were prohibited. Use of more concentrated preparations is considered to be less safe and no more effective. (Reference: (OMNCR) Circular, 9, , Mar 1991)
BRA	**Feb 2001**	The marketing authorization for products containing lindane was withdrawn because of

Product Name **Lindane**

C.A.S. number **58-89-9A**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		unacceptable potential to cause toxic effects. (Reference: (BRARES) Resolucao n., 147/ANVISA, , 14 Aug 2001) **WHO Comment : Lindane has been available for more than 25 years and is widely used as an agricultural and household pesticide.**

Product Name **Lipoic acid**

C.A.S. number **1077-28-7**

Scientific and common names, and synonyms

1,2-DITHIOLANE-3-PENTANOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARM	**Feb 2001**	The Armenian Drug and Medical Technology Agency has not approved marketing of the new immunomodulating agent on the grounds of unacceptable risk benefit ratio resulting from serious adverse effects. (Reference: (ARMCW) Communication to WHO, , , 31 Aug 2001)

Product Name **Lobelia**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this drug has been prohibited for use. All prescription chemicals and galenical preparations not included in the latest edition of the British Pharmacopeia or British Pharmaceutical Codex have been prohibited for use. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy. **WHO Comment : Lobelia comprises the dried aerial parts of lobelia species, the activity of which is due chiefly to the alkaloid lobeline. Although preparations containing lobelia were formerly available for use in the symptomatic treatent of asthma, they are now largely obsolescent as a result of their irritant properties and the availability of more effective preparations.**

Product Name **Loperamide**

C.A.S. number **53179-11-6**

Scientific and common names, and synonyms

1-PIPERIDINEBUTANAMIDE, 4-(4-CHLOROPHENYL)-4-HYDROXY-N,N-DIMETHYL-ALPHA, ALPHA-DIPHENYL

4-(P-CHLOROPHENYL)-4-HYDROXY-N,N-DIMETHYL-ALPHA,ALPHA-DIPHENYL-1- PIPERIDINEBUTYRAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Loperamide**

C.A.S. number **53179-11-6**

PHL	**Nov 1982**	Restricted for use as an antidiarrhoeal drug. Contraindicated in children below two years of age due to the risk of central nervous system damage.
@WD	**1990**	Drop formulations containing loperamide have been voluntarily withdrawn by the major manufacturer. (Reference: (LJJ) Letter to WHO from Johnson & Johnson, , , 21 June 1990)
LIY	**May 1990**	Use of products containing loperamide in children was banned. (Reference: (LIYRL) Resolution of the General People's Health Committee, 141, , May 1990)
PAK	**Jun 1990**	Drop and syrup formulations of products containing loperamide were banned. (Reference: (TURMH) Communication from the Ministry of Health, , , Nov 1991)
OMN	**Jul 1990**	Drop and syrup formulations of products intended for paediatric use containing loperamide were voluntarily withdrawn by the manufacturer. (Reference: (OMNCR) Circular, 13/90, , July 1990)
PER	**Oct 1990**	Registration of drop formulations of loperamide intended for paediatric use was withdrawn. Syrup formulations of loperamide were required to carry a warning stating that they should not be administered to children under 5 years of age. (Reference: (PERMH) Ministry of Health, , , 27 Oct 1990)
IDN	**Nov 1990**	Syrup and liquid formulations of products containing loperamide intended for the treatment of diarrhoea in children were banned. (Reference: (IDMH) Ministry of Health, , , 19 Nov 1990)
MEX	**Dec 1990**	Registration of products containing loperamide intended for paediatric use was withdrawn. (Reference: (MEXMH) Communication from the Ministry of Health, , , 28 Nov 1990)
FRA	**18 Dec 1990**	The approved information for paediatric formulations of the antidiarrhoeal substance loperamide was amended to indicate that these products should not be administered, on grounds of safety, to children less than two years of age. (Reference: (FRARP) La Revue Prescrire, 11(108), 293, 1991)
NPL	**1991**	Liquid formulations of products containing loperamide either alone or in combination, and intended for the treatment of diarrhoea in children, were banned. (Reference: (NPLDDA) Communication from the Department of Drug Administration, , , 27 Feb 1992)
PHL	**1991**	Registration of products containing loperamide intended for paediatric use was withdrawn. (Reference: (MEXMH) Communication from the Ministry of Health, , , 28 Nov 1990)
KOR	**May 1991**	Solid oral dosage forms of products containing loperamide were disallowed for use in children under 7 years of age and syrup formulations were prohibited in infants under 24 months due to the severe toxic effects on the central nervous system. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991)
LBN	**Aug 1991**	Use of products containing loperamide in children under 5 years of age was discontinued and registration of paediatric preparations was withdrawn. (Reference: (LBNMHD) Ministry of Health and Social Affairs Decree, 150/1, , Aug 1991)
TUR	**Sep 1991**	Drop and syrup formulations of products containing loperamide were banned. (Reference: (TURMH) Communication from the Ministry of Health, , , Nov 1991)
LKA	**Nov 1991**	Manufacture, import or sale of drop and syrup formulations of loperamide were prohibited. (Reference: (LKAGAZ) The Gazette of the Democratic Socialist Republic of Sri Lanka (Extraordinary), 688/29, Part I-1, 15 Nov 1991)

WHO Comment : Loperamide, an inhibitor of intestinal peristalsis, was introduced in 1975 for the treatment of acute and chronic diarrhoea. In many countries its use was discouraged in young children. In late 1989, treatment of infants in Pakistan was associated with 19 cases of paralytic ileus, 6 of which have been fatal. This has subsequently led the major manufacturer to withdraw all drop formulations of

Product Name **Loperamide**

C.A.S. number **53179-11-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		the drug worldwide as well as the lower dose syrup forms from countries where there is a programme for the control of diarrhoeal diseases. The WHO Control of Diarrhoeal Diseases Programme recommends that loperamide should not be used in children below five year of age. **(Reference: (LJJ) Letter to WHO from Johnson & Johnson, , , 21 June 1990)**

Product Name **Loxoprofen sodium**

C.A.S. number **68767-14-6**

Scientific and common names, and synonyms

P-[(2-OXOCYCLOPENTYL)METHYL]HYDRATROPATE DIHYDRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		The National Pharmaceutical Administration in the Ministry of Health has not approved loxoprofen sodium because of reports of colonic ulceration and death associated with its use. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **L-Tryptophan**

C.A.S. number **73-22-3**

Scientific and common names, and synonyms

L-2-AMINO-3-(INDOL-3-YL) PROPIONIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**17 Nov 1989**	The marketing authorization for over-the-counter dietary supplements containing L-tryptophan as the sole or major ingredient has been withdrawn. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, P89-49, , 17 Nov 1989)
CHE	**Dec 1989**	The marketing authorization for all pharmaceuticals containing L-trytophan has been suspended. (Reference: (CHBCM) Bulletin Mensuel, , , 27 Dec 1989)
GBR	**Dec 1989**	Non-prescription dietary supplements containing L-tryptophan as the sole or major ingredient and medicinesindicated for the treatment of depression have been withdrawn. Multivitamin and multi-aminoacid supplements where tryptophan is a minor ingredient, parenteral nutrition fluids and preparations for the treatment of phenylketonuria remain on the market. (Reference: (GBRPHJ) The Pharmaceutical Journal, 244, 486, 1990) (Reference: (GBRCSM) Committee on Safety of Medicines, Current problems, 27, , Dec 1989)
SWE	**6 Dec 1989**	Products containing L-tryptophan have been prohibited. An exemption has been granted for parenteral nutrition preparations and oral low dose combinations. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 14(6), 181, 1989)
AUT	**1990**	The marketing authorization for all products containing L-tryptophan, including high and

Product Name **L-Tryptophan**

C.A.S. number **73-22-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		low-dose formulations for oral administration, combination products and solutions for infusion has been suspended. (Reference: (AUTGB) Bundesgesetzblatt für die Republik Oesterreich, , , 18 Oct 1990)
BEL	**1990**	Food supplements containing L-tryptophan as the major ingredient have been withdrawn from sale. All other products containing L-tryptophan, including extemporaneous preparations, have been subjected to prescription control. (Reference: (BELAP) Annales Pharmaceutiques belges, 2, 31, 1990) (Reference: (BELAP) Annales Pharmaceutiques belges, 11, 64, 1990)
DEU	**1990**	The marketing authorization for all products intended for oral use containing L-tryptophan has been suspended until 30 September 1991. An exemption has been granted for nutritional preparations intended for patients either severely impaired digestion and absorption or who are unresponsive to other therapy. (Reference: (DEUPZ) Pharmazeutische Zeitung, 145(44), 2951, 1990) (Reference: (DEUPZ) Pharmazeutische Zeitung, 145(41), 2735, 1990) (Reference: (DEUPZ) Pharmazeutische Zeitung, 145(40), 2629, 1990)
ESP	**1990**	Products containing L-tryptophan intended for oral use were withdrawn, following their association with cases of eosinophilia-myalgia syndrome. Products intended for parenteral use were allowed to remain on the market. (Reference: (ESPITS) Información de la Terapeutica del Sistema Nacional de Salud, 14(12), 349, 1990)
NOR	**1990**	Products containing L-tryptophan as the therapeutic ingredient may only be prescribed for patients alreadyunder treatment and at the special request of a psychiatrist. Preparations containing tryptophan at natural levels, such as products for parenteral nutrition, are exempted from this restriction. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 3, 7, 1990)
NZL	**Feb 1990**	Capsules and tablets which result in a daily intake of 100 mg or more of L-tryptophan have been recalled from retail outlets. Companies may continue to provide preparations containing L-tryptophan to patients. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 257, , 15 Mar 1990)
FRA	**11 Mar 1990**	The manufacture, import, sale and distribution of all dietary supplements and extemporaneous medicinal preparations containing L-tryptophan has been suspended. This measure does not refer to other medicines or to special dietary preparations, including dietary products for nursing infants and for young children with metabolic and nutritional problems, hypoallergenic dietary products for infants and nutritive mixtures for special liquid nourishment. (Reference: (JORF) Journal Officiel de la Republique Francaise, , , 13 May 1990) (Reference: (FMOPL) Le Moniteur des Pharmacies et des Laboratoires, 1892, 18, 1990)
OMN	**May 1990**	Following reports of cases of eosinophilia-myalgia syndrome in the United States, import and marketing of monocomponent and multi-ingredient medicinal preparations containing L-tryptophan were prohibited. A certificate from the Ministry of Health was required for the importation of dietary supplements. (Reference: (OMNCR) Circular, 9/90, , May 1990)
JPN	**14 May 1990**	As a result of the epidemic of eosinophilia-myalgia syndrome reported from the USA, L-tryptophan and all drugs and food products in which it is a constituent have been withdrawn. (Reference: (JPNPH) Pharma Japan, 1204, 1, 14 May 1990)
MYS	**Jul 1990**	The marketing authorization for dietary supplements and medicines containing L-tryptophan has been withdrawn. The decision does not apply to preparations intended for parenteral nutrition or to enteral feed preparations used under medical supervision in patients with specific conditions.

Product Name **L-Tryptophan**

C.A.S. number **73-22-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (MYSDC) Malaysian Drug Control Authority, , , 26 July 1990)
		WHO Comment : L-tryptophan, an essential aminoacid and precursor of serotonin, was introduced into medicine in 1963 for the treatment of depression and sleep disorders. Its effectiveness in these conditions has, however, never been convincingly demonstrated. It is also widely used in dietary supplements, parenteral nutrition preparations and dietary products for children with phenylketonuria. In 1989, reports from the USA showed an association between the consumption of L-tryptophan containing preparations and the development of eosiniphilia-myalgia syndrome (EMS), a condition characterized by intense eosinophilia, severe muscle and joint pain, swelling of the arms and legs, skin rashes and possible fever. Some of the reported cases have been fatal. Since it is not yet clear whether L-tryptophan itself or an unidentified contaminant is the cause of the EMS, many drug regulatory authorities have suspended the marketing authorization of products containing tryptophan pending further investigation, whereas others have withdrawn these products or restricted their use.

Product Name **Lynestrenol**

C.A.S. number **52-76-6**

Scientific and common names, and synonyms

LYNOESTRENOL

LYNENOL

19-NOR-17-ALPHA-PREGN-4-EN-20-YN-17-OL

19 NORPREGN-4-EN-20-YN-17-OL, (17ALPHA)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**1980**	High dosage (2.5mg) lynestrenol products were withdrawn following demonstration of a dose-related incidence of mammary tumours in the beagle bitch. It is acknowledged, however, that this species may not offer a reliable model for predicting possible carcinogenicity of progestogens in humans. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, No.90, ,)
SAU		Products now controlled by the authorities.
		WHO Comment : Lynestrenol, a synthetic progestogen, was introduced in the early 1960s as a component in oral contraceptive preparations. In 1967, as a result of new regulations required by the United States Food and Drug Administration, lynestrenol was submitted to long-term toxicity studies and by the early 1970s it was shown to be associated with an increased incidence of mammary tumours in beagle bitches which led to its withdrawal by at least one regulatory authority. Subsequently the validity of the beagle bitch model as a predictor of carcinogenicity of steroid contraceptives has been contested by many national regulatory authorities and lynestrenol remains available in some countries for contraceptive and other purposes. **(Reference: (WHODI) WHO Drug Information, 1-3, 5-7, 1984)**

Product Name **Mazindol**

C.A.S. number **22232-71-9**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Mazindol**

C.A.S. number **22232-71-9**

Scientific and common names, and synonyms

5-(P-CHLOROPHENYL)-2,5-DIHYDRO-3H-IMIDAZOL[2,1-A]ISOINDOL-5-OL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**11 Jan 1987**	Import and marketing of products containing mazindol were prohibited. (Reference: (OMNCR) Circular, 2/87, , Jan 1987) **WHO Comment : Mazindol, an anorectic agent, was introduced into medicine in 1970 as an aid to weight reduction. It is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. It remains available in many countries with highly evolved drug regulatory authorities.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Meclozine**

C.A.S. number **569-65-3**

Scientific and common names, and synonyms

MECLIZINE

PIPERAZINE, 1-((4-CHLOROPHENYL)PHENYLMETHYL)-4-((3-METHYLPHENYL)METHYL)-

1-(P-CHLORO-ALPHA-PHENYLBENZYL)-4-(M-METHYLBENZYL)PIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IDN	**1 Jan 1963**	The Ministry of Health has prohibited the importation, production, sale and distribution of this drug. (Reference: (IDMHD) Ministerial Decree, 682-PH-63B, , June 1963) **WHO Comment : Meclozine, an antihistamine with antiemetic activity, was introduced in 1953 for the treatment of nausea. The action taken in Indonesia in 1963 resulted from concern regarding its possible teratogenic potential. Subsequent epidemiological studies have been widely accepted, however, as dispelling this suspicion. Meclozine remains widely available in both prescription only and over-the-counter preparations and in some countries the licensed indications include management of nausea of pregnancy.**

Product Name **Medifoxamine**

C.A.S. number **32359-34-5**

Scientific and common names, and synonyms

NN-DIMETHYL-2,2-DIPHENOXYETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MAR	**Jun 1999**	The manufacturer has withdrawn medifoxamine from the market because of evidence of hepatic injury. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
FRA	**Mar 2000**	The Medicines Agency has announced the withdrawal of the antidepressant, medifoxamine from the market after a pharmacovigilance enquiry performed in France revealed evidence of hepatic injury associated with the use of medifoxamine.

Product Name **Medifoxamine**

C.A.S. number **32359-34-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (FRAAMI) Infofax - Pharmacovigilance, , , 30 June 1999)

Product Name **Mefloquine**

C.A.S. number **53230-10-7**

Scientific and common names, and synonyms

4-QUINOLINEMETHANOL, ?-2-PIPERIDINYL-2,8-BIS(TRIFLUOROMETHYL)-, (R*, S*)-(±)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**May 1996**	The Irish Medicines Board has contraindicated the use of mefloquine for prophylaxis in patients with renal insufficiency or severe impairment of liver function; for prophylaxis in patients with a history of psychoses and epilepsy; in patients with hypersensitivity to mefloquine or related compounds; in concomitant use with halofantrine. (Reference: (IRDDS) Drug Safety Newsletter, No.2, , May 1996)
GBR	**Jul 1996**	The Committee on Safety of Medicines recommends that prophylactic use of mefloquine is contraindicated in patients with a history of neuropyschiatric disturbance, and that patients should be informed about adverse reactions that may occur in association with mefloquine. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol.22, p. 6, 1996) **WHO Comment : Mefloquine was developed in response to proliferation of multi-drug resistant strains of Plasmodium falciparum, and has been widely used since the early 1980s. Provided the drug is used appropriately, the risks associated with its prophylactic use are clearly outweighed by the benefits. Mefloquine is listed in the WHO Model List of Essential Drugs.**

Product Name **Megestrol acetate**

C.A.S. number **3562-63-8**

Scientific and common names, and synonyms

PREGNA-4,6-DIENE-3,20-DIONE, 17-(ACETYLOXY)-6-METHYL

17-HYDROXY-6-METHYLPREGNA-4,6-DIENE-3,20-DIONE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1976**	Preparations for oral use have been withdrawn from the market.
NOR	**1 Jan 1976**	Oral contraceptives containing this substance have been withdrawn from the market and use is now restricted to anti-cancer treatment.
DEU	**1977**	Following the discovery of increased incidence of breast tumours in beagle bitches during long-term toxicity studies, contraceptive preparations containing megestrol acetate were voluntarily withdrawn by the manufactuer. The drug remains available for treatment of endometrial carcinoma.
GBR	**1982**	This substance is licensed only for the treatment of certain hormone-dependent neoplasms but not for use in contraceptive preparations. This restriction was applied because of reports of dose dependent mammary tumours in beagles. Such lesions have not been reported in rats and monkeys.

Product Name **Megestrol acetate**

C.A.S. number **3562-63-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL		Voluntarily withdrawn from the market. **WHO Comment : Megestrol acetate, a synthetic progestogen, was introduced in the early 1960s as a component in oral contraceptive preparations. In 1967, as a result of new regulations required by the United States Food and Drug Administration, megestrol acetate was submitted to long-term toxicity studies and by the early 1970s it was shown to be associated with an increased incidence of mammary tumours in beagle bitches which led to its withdrawal by several regulatory authorities. Subsequently the validity of the beagle bitch model as a predictor of carcinogenicity of steroid contraceptives has been contested by many national regulatory authorities and megestrol remains available in some countries for contraceptive purposes. In other countries its use is restricted to anticancer treatment.** **(Reference: (WHODI) WHO Drug Information, 1-3, 5-7, 1984)**

Product Name **Melatonin**

C.A.S. number **73-31-4**

Scientific and common names, and synonyms

5-METHOXY-N-ACETYL TRYPTAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Sep 1995**	The Medicines Control Agency has ordered suppliers to stop selling the hormone, melatonin, until they have obtained a product licence. The MCA has now decided that melatonin is "medicinal by function" and requires a licence. (Reference: (GBRPHJ) The Pharmaceutical Journal, Vol.255, p.245, 16 Sep 1995)
NOR	**May 1996**	The Medicines Control Authority has reclassified melatonin as a prescription medicine. (Reference: (NORNL) Nytt om legemidler, 19(3): 56, , 1996)
DEU	**Jun 1996**	The Federal Institute for Drugs and Medical Devices has decided that melatonin is a medicinal product and therefore requires a marketing authorization. (Reference: (DEUPM) Pressemitteilung, 5/96, , 14 June 1996)
NZL	**Aug 1997**	Melatonin has been classified as a Prescription Medicine because the information on its safety and efficacy is insufficient. Previously, melatonin was unclassified. (Reference: (NZLPU) Prescriber Update, No.15, , Aug 1997) **WHO Comment : Melatonin is promoted as a cure for travel sickness, jet-lag and insomnia and has recently been claimed in the United States to reverse the ageing process. A synthetic version has been freely available from health food shops and pharmacies as a "nutritional supplement" since 1993.**

Product Name **Mepacrine**

C.A.S. number **83-89-6**

Scientific and common names, and synonyms

ARRITHINUM

ANTIMALARINAE CHLORHYDRAS

CHINACRINA MEPACRINI HYDROCHLORIDIUM

QUINACRINE HYDROCHLORIDE

Legislative or regulation action

Product Name **Mepacrine**

C.A.S. number **83-89-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IND	**Aug 1998**	The Government has issued a notification banning the import, manufacture, sale and distribution of mepacrine (quinacrine) for use as a contraceptive or sterilisation agent. Penalties include up to three years imprisonment and fines of up to Rs. 5,000. This action has been taken following clinical trials undertaken by the Indian Council of Medical Research that raised questions about the safety of the drug. (Reference: (HINDU) Use of quinacrine as contraceptive banned, , , 18 Aug 1998)

Product Name **Mephenesin**

C.A.S. number **59-47-2**

Scientific and common names, and synonyms

3-(O-METHYLPHENOXY)-1,2-PROPANEDIOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1976**	This compound, promoted as a muscle relaxant, has been withdrawn because of lack of substantial evidence of efficacy and safety.
SAU		Registration of this drug has been postponed, and its distribution is prohibited.
		WHO Comment : Mephenesin, a centrally acting muscle relaxant and sedative, was introduced in 1948 and its use has subsequently been associated with some of the undesirable features of barbiturate use. It is of limited efficacy since it is short-acting and does not relieve the spasticity associated with chronic neurological disorders. It has therefore been largely superseded by benzodiazepines but it remains available in some countries.

Product Name **Meprobamate**

C.A.S. number **57-53-4**

Scientific and common names, and synonyms

1,3-PROPANEDIOL, 2-METHYL-2-PROPYL-, DICARBAMATE

2-METHYL-2-PROPYL-1,3-PROPANEDIOL DICARBAMATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jan 1981**	Meprobamate-containing appetite suppressants have been withdrawn from the market. There is a lack of evidence of their value in long-term management of obesity, they have the potential for abuse and despite warnings they are frequently used over unacceptably prolonged periods.
		WHO Comment : Meprobamate, a bis-carbamate ester, was introduced in 1955 for the treatment of anxiety and was subsequently used as a sedative-hypnotic drug. Psychological and physical dependence can occur and abuse has been reported. Meprobamate is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Mesna**

C.A.S. number **19767-45-4**

Scientific and common names, and synonyms

ETHANESULFONIC ACID, 2-MERCAPTO-, MONOSODIUM SALT

SODIUM 2-MERCAPTOETHANESULFONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Apr 1991**	Oral liquid dosage forms of preparations containing mesna were voluntarily withdrawn by the manufacturer because their use had been associated with hypersensitivity reactions of different degrees, including slight skin eruptions up to more serious anaphylactic reactions, in patients with autoimmune conditions. (Reference: (DAZ) Deutsche Apotheker Zeitung, 131(17), VI, 1991) **WHO Comment : Mesna, an antidote used to protect patients treated with cyclophosphamide or ifosfamide from haemorrhagic vesiculitis, was introduced on the market in 1984. Shortly afterwards, its use became associated with allergic reactions, which occurred mainly in patients treated with the oral solution. This led to the withdrawal of this formulation in Germany, the only country where it was marketed. An oral liquid dosage form is still registered, but not marketed, in the Netherlands and products for intravenous injection remain available elsewhere.**

Product Name **Metamfetamine**

C.A.S. number **537-46-2**

Scientific and common names, and synonyms

METHYLAMPHETAMINE

METAMPHETAMINE

(+)-2-METHYLAMINO-1-PHENYLPROPANE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
OMN	**10 May 1982**	Import and marketing of products containing metamfetamine and its racemic form were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
NGA	**1988**	All products containing metamfetamine have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988) **WHO Comment : Metamfetamine, an amfetamine derivative, is controlled under Schedule II of the 1971 Convention on Psychotropic Substances. See WHO comment for amfetamine.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Metamizole sodium**

C.A.S. number **68-89-3**

Scientific and common names, and synonyms

ANALGIN

DIPYRONE

DIPYRON

METHANESULFONIC ACID, ((2,3-DIHYDRO-1,5-DIMETHYL-3-OXO-2-PHENYL-1H-PYRAZOL-4-YL)METHYLAMINO)-,SODIUM SALT

METHANESULFONIC ACID

Legislative or regulation action

Product Name **Metamizole sodium**

C.A.S. number **68-89-3**

Scientific and common names, and synonyms

METHAMPYRONE

NORAMIDOPYRINE METHANESULFONATE SODIUM

SULPYRINE

SULPYRIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**1965**	The Department of Health has prohibited the importation of noramidopyrine methanesulfonate sodium (metamizole sodium). (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, No.9, ,)
NOR	**Jul 1976**	Withdrawn from the market.
PHL	**1977**	Used only as a last resort in serious and life-threatening situations when other less toxic antipyretic drugs and other measures have failed and are not tolerated, and only with proper supervision and monitoring. The package inserts are required to carry extensive warning information, especially regarding the risk of fatal agranulocytosis with the usage of this drug. The drug is available only on prescription. (Reference: (PHADO) Administrative Order, 330, , 1977)
USA	**27 Jun 1977**	An analgesic, antipyretic drug, found to be effective at reducing fever but withdrawn from the market and prohibited for export by the Food and Drug Administration on the basis of reports of agranulocytosis, a sometimes fatal blood condition, associated with its use. The Director of the Bureau of Drugs found that agranulocytosis cannot be effectively prevented by frequent examination of treated patients since this condition can occur within a few hours following administration of the drug to a sensitive individual. In its decision, the FDA cited the availability of effective orally administered drug products (e.g. acetylsalicylic acid or paracetamol) and concluded that the risks associated with this drug far outweigh any benefit derived from its use, including use in Hodgkin's disease and similar malignant diseases. (Reference: (FEREAC) Federal Register, 42(117), 30893, 1977)
KWT	**Dec 1978**	All dosage forms are no longer allowed with the exception of injectable preparations which may be used only in an emergency. (Reference: (KTMD) Ministerial Decree, 556/78, , 1978)
ITA	**1979**	Injectable preparations with dosages higher than 1 gram and intravenous preparations in combination with other compounds have been withdrawn. The label for currently marketed preparations now carries a warning regarding fatal accidents due to hypersensitivity.
DNK	**Apr 1979**	Preparations containing metamizole were banned for systemic use due to the potential risk of fatal agranulocytosis. (Reference: (UGLAAD) Ugeskrift for Laeger, 873, , Mar 1979)
SAU	**1980**	All preparations containing metamizole were prohibited due to several reports of anaphylactic shock.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing metamizole sodium are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
SDN	**1982**	The Ministry of Health no longer allows registration of metamizole sodium with the exception of parenteral preparations for limited use.
BGD	**Jun 1982**	Banned in oral drops and tablet form due to high incidence of adverse effects and availability of safer alternatives. A single ingredient injection remains available for terminal care as a restricted drug for specialized use.
EGY	**Jul 1983**	Following reports of anaphylactic shock, no registration licence is to be granted for injectable preparations containing more than 1 gram of this compound.

Product Name **Metamizole sodium**

C.A.S. number **68-89-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISR	**1 Dec 1985**	Fixed dose combinations of metamizole sodium are not approved for registration. Parenteral preparations of metamizole sodium (single-dose product) may be administered only in hospitals and clinics where there are suitable facilities for resuscitation (in cases of anaphylactic shock). Enteral preparations of metamizole sodium (single-dose product) may be dispensed without prescription.
BEL	**1987**	Preparations containing metamizole sodium have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and crossbones label. Metamizole in combination with a spasmolytic may be dispensed a maximum of five times against a renewable prescription for a period of six months. (Reference: (BELAR) Arrêté Royal, , , June 1987)
MYS	**Jan 1987**	All products containing metamizole sodium have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.6, , Oct 1986)
DEU	**27 Apr 1987**	Subsequent to the regulatory action taken in January 1983 (see Pyrazolones) the Federal Health Office has further restricted the use of preparations containing metamizole sodium. As from 1 January 1987 all preparations have been subjected to prescription control and combination products have been withdrawn. (Reference: (FRGGH) Bundesgesundheitsamt Pressedienst, 18, , Apr 1987)
PAK	**1988**	All combination products containing metamizole sodium were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
ESP	**1989**	The indications of products containing metamizole sodium have been restricted to acute post-traumatic or post-surgical pain, abdominal colic and high fever unresponsive to other antipyretics. All fixed combination products containing metamizole have been withdrawn, except those in which it is associated with a spasmolytic. (Reference: (ESPINS) Información Terapéutica de la Seguridad Social, 13(1), 6, 1989)
GHA	**1 Sep 1989**	Products containing metamizole sodium of its salts have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
NLD	**1990**	Having regard to reports of agranulocytosis, the manufacturers have agreed to the voluntary withdrawal of metamizole sodium from combination preparations. (Reference: (NPHWB) Pharmaceutisch Weekblad, 125(3), 82, 1990)
CHE	**1 Jan 1992**	Products containing metamizole sodium were subjected to prescription control. (Reference: (CHBCM) Bulletin Mensuel, 10, 686, 1991)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale pharmaceutical products containing metamizole sodium (injectable formulation). This action was based on the potential of these products to induce suppression of the bone marrow. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992)
THA	**Feb 1994**	The Ministry of Public Health has revised the product information for pharmaceutical products containing the pyrazalone analgesic, metamizole sodium (dipyrone) to include a warning on possible agranulocytosis and impairment of the immune system and to restrict its use to severe pain and lack of response to aspirin or paracetamol. The drug has been rescheduled and may now be obtained only on prescription. It has also been prohibited for use in combination products, i.e. antispasmodic and cold remedy preparations. (Reference: (THAFDA) Communication to WHO, , , 08 Feb 1994)
NPL	**21 Jul 1997**	The health authorities have banned the importation, manufacture, sale, distribution and storage of metamizole sodium alone or in combination. This action has been taken on

Product Name **Metamizole sodium**

C.A.S. number **68-89-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		the basis of safety concerns relating to this product. (Reference: (NPLGZ) Nepal Gazette, Part 47(15), Notice 2, 21 July 1997)
SYR	**1998**	The Suprim Technical Committee and the Ministry of Health has instructed all local drug factories to stop manufacturing metamizole sodium (dipyrone) ampoules with immediate effect. (Reference: (SYRAFD) Announcement from the Directorate, No: 1784, , 02 Feb 1998)
YEM	**1998**	The Supreme Board of Drugs and Medical Appliances has withdrawn all formulations of metamizole sodium because of its potential to cause anaphylactic shock and agranulocytosis. (Reference: (YEMCW) Communications to WHO, , , 10 Oct 1998)
ZWE	**1998**	The Medicines Control Authority has cancelled the registration of all metamizole sodium (dipyrone)- containing products due to the potential risk of metamizole sodium causing fatal agranulocytosis. (Reference: (ZWEDIB) Drug Information Bulletin, Vol.2 No.1, , Mar 1998)
SWE	**1999**	The Medical Products Agency has suspended the marketing authorization for metamizole sodium with effect from 28 April 1999. The decision is based on a larger than expected number of reports of agranulocytosis in Sweden since 1996 (1 in 1,700). (Reference: (SWEMPA) EU/EEA Rapid Alert, , , 28 Apr 1999)
MAR	**May 2000**	The Minister of Public Health has decided to suspend the marketing authorization for products containing metamizole sodium on the recommendation of the National Advisory Commission for Pharmacovigilance. This recommendation followed an official survey which showed severe adverse reactions associated with this product. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
COL	**Jun 2000**	The Instituto Nacional de Vigilancia de Medicamentos y Alimentos (INVIMA) in Colombia, Colombian Ministry of Health has restricted the use of metamizole either alone or in combination. These products should be available only if other combination. These products should be available only if other therapeutic management is insufficient. (Reference: (COLVMA) Letter from INVIMA to WHO, Res. 259048, , 22 June 2000)
LTH	**Sep 2000**	The marketing authorization for tablets was not renewed for safety reasons. (Reference: (LTHCW) Communication to WHO, , , 24 Aug 2001)
ARM		The Drug and Medical Technology Agency has suspended the marketing authorization of metamizole sodium (tablets and solution). The decision is based on a large number of reports on agranulocytosis in Sweden since 1996 and other dangerous adverse effects. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
BHR		Preparations containing metamizole sodium have been withdrawn.
GRC		Preparations containing metamizole have been withdrawn from the market, with the exception of injectable preparations containing up to 1 gram, because of concern about agranulocytosis associated with the drug's use.
IRL		Products containing metamizole have been withdrawn.
MEX		Due to toxicity, not accepted for use in pediatric preparations (elixir, solution, suspension, suppositories). Alternatives must be sought.
PER		The package and/or label for this product advises that the drug is intended for prescription use only and may cause agranulocytosis.
SGP		Metamizole sodium and related salts have been banned for importation.
SWE		Preparations containing metamizole sodium were withdrawn from the market by the manufacturers after mutual discussions due to adverse reactions such as agranulocytosis.

Product Name **Metamizole sodium**

C.A.S. number **68-89-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
VEN		Not approved for use and/or sale. **WHO Comment : Metamizole sodium, a pyrazolone derivative with analgesic, antipyretic and anti-inflammatory activity, was introduced in 1921 and has since been widely available in over-the-counter products. By the early 1970s its use had been associated, as with some other pyrazolones, with serious and sometimes fatal adverse reactions, notably cases of blood dyscrasias including agranulocytosis, which led to its withdrawal by some regulatory authorities (see full list). Although preparations of metamizole sodium are prohibited in certain countries, they remain widely available in others and, in some cases, in over-the-counter products.**

Product Name **Metformin**

C.A.S. number **657-24-9**

Scientific and common names, and synonyms

IMIDODICARBONIMIDIC DIAMIDE-, N,N-DIMETHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**Apr 1998**	Metformin is contraindicated in chronic hepatic disease, hypoxia (e.g., recent myocardial infarction, cardiac failure, pulmonary disease), dehydration and in the period from immediately prior to surgery until the patient is again eating and drinking normally. (Reference: (NZLPU) Prescriber Update, No.16, , Apr 1998)

Product Name **Methanol**

C.A.S. number **67-56-1**

Scientific and common names, and synonyms

METHYL ALCOHOL

METHANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA		Products containing this ingredient may not be registered. **WHO Comment : Methanol has been subjected to abuse by consumption as a substitute for ethanol. Its toxic metabolites cause irreversible blindness and severe metabolic acidosis, and are ultimately fatal. Methanol continues to be used as an industrial solvent.**

Product Name **Methapyrilene**

C.A.S. number **91-80-5**

Scientific and common names, and synonyms

1,2-ETHANEDIAMINE, N,N-DIMETHYL-N'-2-PYRIDINYL-N'-(2-THIENYLMETHYL)

2((2-(DIMETHYLAMINO)ETHYL)-2-THENYLAMINO)PYRIDINE

Legislative or regulative action

Product Name **Methapyrilene**

C.A.S. number **91-80-5**

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1979**	Withdrawn following experimental evidence of carcinogenicity in rodents.
DOM	**1979**	Withdrawn following experimental evidence of carcinogenicity in rodents.
GBR	**1979**	Withdrawn following experimental evidence of carcinogenicity in rodents.
ITA	**1979**	Withdrawn from the market owing to suspected carcinogenicity.
CAN	**28 Jun 1979**	Approval for registration of products containing methapyrilene, or any of its salts was withdrawn. Action was based on data received by the Health Protection Branch identifying methapyrilene as a potent carcinogen in rats. (Reference: (CANGZ) Canada Gazette, 113/II(13), 2530, 1979)
SGP	**Oct 1979**	Medicinal products containing methapyrilene and/or its salts have been banned for importation.
HKG	**17 Dec 1979**	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing methapyrilene.
AUS	**1980**	All preparations withdrawn following demonstration of carcinogenic potential in rats.
EGY	**1980**	Products containing methapyrilene were withdrawn having regard to its carcinogenic potential.
PAN	**9 May 1980**	The Ministry of Health has banned the sale of pharmaceuticals and cosmetics containing methapyrilene. (Reference: (PANMR) Ministry of Health Resolution, 882, , May 1980)
BRA	**30 Jun 1980**	Products containing methapyrilene are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.08, , 1980)
PHL	**Sep 1980**	This compound has been banned in antihistamines. It has been found to be carcinogenic in animals.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing methapyrilene hydrochloride are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
IND	**1983**	Prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
OMN	**27 Jul 1992**	Marketing of products containing methapyrilene was prohibited. (Reference: (OMNCR) Circular, 28/92, , July 1992)
CHL		Withdrawn following experimental evidence of carcinogenicity in rodents.
NZL		Voluntarily withdrawn from the market.
USA		This antihistamine was withdrawn in the United States of America, and subsequently in several other countries, following experimental evidence of carcinogenicity in rodents.
VEN		Withdrawn from market.
		WHO Comment : Methapyrilene, an antihistamine with moderate sedative activity, was introduced in 1947 for the treatment of various allergic conditions and was subsequently incorporated in many over-the-counter sleeping aids. In the early 1970s it was identified as a carcinogen in rats and, although there was no direct evidence that it constitutes a health hazard to man, it was withdrawn in many countries. **(Reference: (WHODI) WHO Drug Information, 2, 4, 1979)**

Product Name **Methaqualone**

C.A.S. number **72-44-6**

Legislative or regulation action

Product Name **Methaqualone**

C.A.S. number **72-44-6**

Scientific and common names, and synonyms

2-METHYL-3-O-TOLYL-4(3H)-QUINAZOLINONE

4(3H)-QUINAZOLINONE, 2-METHYL-3-(2-METHYLPHENYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1979**	Withdrawn from the market.
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
OMN	**10 May 1982**	Import and marketing of products containing methaqualone were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
ZWE	**Nov 1984**	Prohibited for use. (Reference: (ZWESI) Statutory Instrument, 366, , Nov 1984)
PAK	**1988**	Products containing methaqualone were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
GHA	**1 Sep 1989**	Products containing methaqualone or its salts have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
ARE		Pharmaceutical preparations containing methaqualone are banned. **WHO Comment : Methaqualone, a quinazolone derivative, was introduced in 1965 for use as a sedative-hypnotic drug. It is widely abused and is associated with severe withdrawal symptoms. Methaqualone is controlled under Schedule IV of the 1971 Convention of Psychotropic Substances.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Methiodal sodium**

C.A.S. number **126-31-8**

Scientific and common names, and synonyms

METHANESULFONIC ACID, IODO-, SODIUM SALT

SODIUM IODOMETHANESULFONATE

SODIUM IODOMETHANE SULPHONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Jan 1975**	Methiodal sodium was reported to have induced muscle spasms in some patients subjected to myelography, presumably because of an irritant action on motor nerve roots. Registration was withdrawn when a safer X-ray contrast medium was introduced on the market. **WHO Comment : Methiodal sodium, a radio-opaque medium, was formerly used for the examination of the urinary tract. Its use was associated with muscle spasms presumed to result from irritation of motor nerve roots in the spinal canal. This led to its withdrawal in Sweden in 1975 when a safer alternative became available. Preparations containing methiodal sodium were subsequently withdrawn worldwide by the manufacturer.**

Product Name **Methylphenidate**

Legislative or regulation action

C.A.S. number **113-45-1**

Scientific and common names, and synonyms

METHYL ALPHA-PHENYL-2-PIPERIDINEACETATE

2-PIPERIDINEACETIC ACID, ALPHA-PHENYL-, METHYL ESTER, (R*,R*)-(+/-)

2-PHENYL-2-(2-PIPERIDYL)ACETIC ACID, METHYL ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	6 Sep 1982	Banned for production, import, export, sale and use.
OMN	10 May 1982	Import and marketing of products containing methylphenidate were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
NGA	1988	All products containing methylphenidate have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988) **WHO Comment : Methylphenidate, a piperidine derivative with mild central stimulant activity, was introduced in 1956. Its pharmacological properties resemble those of amfetamines and it shares their abuse potential. Methylphenidate retains a place as an adjunct in the treatment of hyperkinetic syndromes in both children and adults. It is controlled under Schedule II of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Methylrosanilinium chloride**

C.A.S. number **548-62-9**

Scientific and common names, and synonyms

CRYSTAL VIOLET

CL BASIC VIOLET

GENTIAN VIOLET

METHYLROSANILINE CHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	Apr 1998	The Drug Control Authority decided to cancel the registration of all existing products containing methylrosanilinium chloride following reports of adverse reactions and toxicity such as buccal ulceration, stomatitis, kerato-conjunctivitis, irritation and sensitivity reactions encountered with the use of products containing this dye. Studies have shown methylrosanilinium chloride to be a carcinogen in mice and it has been labelled as a mutagen, a mitotic poison and a clastogen. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), Vol.12 No.2, , Aug 1998)

Product Name **Methyprylon**

C.A.S. number **125-64-4**

Scientific and common names, and synonyms

PIPERIDINEDIONE

2,4-PIPERIDINEDIONE, 3,3-DIETHYL-5-METHYL-

3,3-DIETHYL-5-METHYL-2,4-PIPERIDINEDIONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Methyprylon**

C.A.S. number **125-64-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ZWE	**Nov 1984**	Prohibited for use. (Reference: (ZWESI) Statutory Instrument, 366, , Nov 1984) **WHO Comment : Methyprylon, a piperidine derivative, was introduced in 1955 for use as a sedative-hypnotic drug. Habituation, tolerance, physical dependence and addiction can occur and methyprylon is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Metoclopramide (paediatric)**

C.A.S. number **364-62-5**

Scientific and common names, and synonyms

AHR-3070-C

METOCLOPRAMIDI HYDROCHLORIDIUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SYR	**1999**	The Suprim Technical Committee and the Ministry of Health has prohibited the use of metoclopramide in children less than 20 kg of weight because of reports of sensitivity reactions. . (Reference: (SYRAFD) Announcement from the Directorate, No. 5615/3/15, , 1999)

Product Name **Metofoline**

C.A.S. number **2154-02-1**

Scientific and common names, and synonyms

ISOQUINOLINE,1-(2-(4-CHLOROPHENYL)ETHYL)-1,2,3,4-TETRAHYDRO-6,7-DIMETHOXY-2-METHYL-

METHOPHOLINE

1-(P-CHLOROPHENETHYL)-1,2,3,4-TETRAHYDRO-6,7-DIMETHOXY-2- METHYLISOQUINOLINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Mar 1965**	Withdrawn from the market and prohibited for export by the Food and Drug Administration on the basis of findings of eye changes and corneal opacities in chronic-toxicity studies in dogs. **WHO Comment : Metofoline, an analgesic, was introduced in the early 1960s for the treatment of mild to moderate acute and chronic pain. It was never available outside the USA.**

Product Name **Metrodin HP**

C.A.S. number **2004-0-0007**

Legislative or regulative action

Legislative or regulation action

Product Name **Metrodin HP**

C.A.S. number **2004-0-0007**

Country	Effective Date	Description of action taken Grounds for decision
GBR	**10 Feb 2003**	Metrodin High Purity (HP), a product used in the treatment of infertility and manufactured from urine sourced from Italy, is being withdrawn in the UK by the Committee on Safety of Medicines (CSM), following confirmation of a case of variant Creutzfeldt-Jakob Disease (vCJD) in Italy. (Reference: (GBRMRS) Media Release, , , 10 Feb 2003)

Product Name **Mianserin**

C.A.S. number **24219-97-4**

Scientific and common names, and synonyms

DIBENZO(C,F)-PYRAZINO(1,2-A)AZEPINE, 1,2,3,4,10,14B-HEXAHYDRO-2- METHYL

1,2,3,4,10,14B-HEXAHYDRO-2-METHYLDIBENZO(C,F)-PYRAZINO(1,2-A)AZEPINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**27 Nov 1986**	Having regard to reported adverse effects, the Central Drug Committee has prohibited import and marketing of pharmaceutical products containing mianserin. **WHO Comment : Mianserin, a serotonin antagonist with antidepressant and antihistaminic activity, was introduced in 1975 for the treatment of depressive illness. Its use has since been associated with cases of severe blood dyscrasias, particularly in elderly patients, including agranulocytosis, leucopenia and granulocytopenia. Several drug regulatory authorities have reacted by stipulating that blood counts should be monitored regularly during the first few months of treatment and that administration should be discontinued immediately should any signs possibly indicative of dyscrasia develop.**

Product Name **Mibefradil**

C.A.S. number **116644-53-2**

Scientific and common names, and synonyms

(1S,2S)-(2-{[3-(2-BENZINIDAZOYLYL)PROPYL]METHYLAMINE}-ETHYL-6-FLUORO-1,2,3,4-TETRAHYDRO-1-ISOPROPYL-2-NAPHTHYL METHOXYACETATE DIHYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PER	**1998**	La Direcciòn General de Medicamentos, Insumos y Drogas (DIGEMID) of the Ministry of Health withdrew marketing authorization for mibefradil (Posicor) following reports of serious adverse effects caused by the interaction with other medicines. (Reference: (PERDGM) Alerta DIGEMID, No. 04-98, , 1998)
USA	**1998**	Roche laboratories announced the voluntary market withdrawal of the antihypertensive and antianginal medication mibefradil (Posicor). This action was taken because of information on a number of drug interactions, some of them serious that occur when mibefradil is taken together with other medications. (Reference: (USADDL) Dear Doctor letter, , , 08 June 1998)
ZAF	**1998**	The South African Medicines Control Council has withdrawn products containing mibefradil because of safety concerns in relation to potential for serious drug interactions. (Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,)
JAM	**Feb 1998**	The calcium channel blocking agent, mibefradil was voluntarily withdrawn from the market by Hoffman La Roche.

Product Name **Mibefradil**

C.A.S. number **116644-53-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (JAMMHS) Communication to WHO, , , 26 Sep 2000)
GBR	**Jul 1998**	Mibefradil was voluntarily withdrawn from the market by the manufacturer worldwide due to an increasing number of reports of serious interactions with a wide range of drugs. . (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)
DEU	**Aug 1998**	The Federal Institute for Drugs and Medical Devices has suspended the marketing authorization for mibefradil because it considers that mibefradil has a negative benefit/risk ratio. In particular, it has a life-threatening potential to induce cardiac arrhythmias (including torsades de pointes) especially when taken concomitantly with other medications. (Reference: (DEUCFI) Communication, , , 21 Aug 1998)
BGR	**Apr 1999**	The Bulgarian Drug Agency in the Ministry of Health withdrew the calcium channel blocking agent, mibefradil (Posicor) because of serious adverse reactions worldwide. (Reference: (BGRBDA) Communication to WHO, , ,)
ARM	**Jul 2000**	Mibefradil has been voluntarily withdrawn on the basis of a large number of reports of life-threatening interactions of the drug: extremely low heart rates and a risk of muscle injury. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)

Product Name **Mifepristone**

C.A.S. number **84371-65-3**

Scientific and common names, and synonyms

11BETA-[P-(DIMETHYLAMINO)PHENYL]-17BETA-HYDROXY-17-(1-PROPYNYL)ESTRA-4,9-DIEN-3-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Apr 1991**	Following reports of cardiovascular adverse effects, the approved product information for mifepristone was amended to contraindicate its use, in conjunction with a prostaglandin, as an abortifacient in women who have smoked regularly for more than 2 years and in all women over 35 years of age. (Reference: (FRAMSS) Ministry of Social Affairs and Solidarity, , , 19 Apr 1991) **WHO Comment : Mifepristone, an antiprogesterone used in combination with a prostaglandin for the termination of early pregnancy, was introduced in 1990. Use of the combination has been associated with episodes of coronary spasm that are attributed to administration of the prostaglandin and which have resulted in several cases of cardiac infarction and ventricular fibrillation. At least one of these incidents has been fatal.**

Product Name **Miglustat**

C.A.S. number **72599-27-0**

Scientific and common names, and synonyms

1,5-(BUTYLIMINO)-1,5-DIDEOXY-D-GLUCITOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISR	**2002**	Miglustat has been temporarily withdrawn in Israel as a precaution pending investigation of an unexplained cognitive dysfunction in a patient previously treated with the drug.

Product Name **Miglustat**

C.A.S. number **72599-27-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (ISRMDR) Media Release, , , 24 Apr 2002)

Product Name **Minocycline**

C.A.S. number **10118-90-8**

Scientific and common names, and synonyms

2-NAPHTACENECABOXAMIDE,4,7-BIS(DIMETHYLAMINO)-1,-4,4A,5,5A,6,11,12A-OCTAHYDRO-3,10,12,12A-TETRAHYDROXY-1,-11-DIOXO,[4S-(4ALPHA,4AALPHA,5AALPHA,12AALPHA]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1989**	Products containing minocycline have been refused for registration, on the grounds that the associated adverse reactions tend to be more severe than those resulting from other tetracycline antibiotics. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 13, 1989) **WHO Comment : Minocycline, a semi-synthetic tetracycline derivative was introduced in 1967. It is used today in the treatment of bacterial, rickettsial and amoebic infections. Symptoms described as dizziness or vertigo have been recognized in association with minocycline administration, however, these symptoms are usually not severe. Minocycline is registered in many countries and the World Health Organization is not aware that registration has been refused elsewhere.**

Product Name **Misoprostol**

C.A.S. number **59122-46-2**

Scientific and common names, and synonyms

SC-29333. METHYL 7-{1R,2R,3R)-3-HYDROXY-2-[(E)-(4RS)-4-HYDROXY-4-METHYLOCT-1-ENYL]-5-OXOCYCLOPENTYL}HEPTANOATE

(11 ALPHA, 13E)-11, 16-DIHYDROXY-16-METHYL-9-OXOPROST-13-EN-1-OIC ACID METHYL ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**Apr 2000**	The Directorate General of Pharmaceutical Affairs & Drug Control has rescheduled misoprostol as a non-psychotropic restricted controlled item because of international data concerning its potential abuse and risk of dependence. (Reference: (OMNCR) Circular, No. 25/2000, , 25 Apr 2000)
THA	**Oct 2000**	This drug has been severely restricted for use in hospitals only. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)

Product Name **Mofebutazone**

C.A.S. number **2210-63-1**

Scientific and common names, and synonyms

4-BUTYL-1-PHENYL-3,5-PYRAZOLIDINEDIONE

Legislative or regulative action

Legislative or regulation action

Product Name **Mofebutazone**

C.A.S. number **2210-63-1**

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1985**	Indications are restricted to symptomatic treatment of acute exacerbations of arthroses including chronic articular rheumatism, periarthritis, tendinitis, ankylosing spondylitis and superficial thrombophlebitis.
OMN	**1986**	The Ministry of Health has prohibited the import of preparations containing mofebutazone except those intended for topical use.
AUT		Indications restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984) **WHO Comment : Mofebutazone, a pyrazolone with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1962 for the treatment of rheumatic disorders. As it is structurally related to phenylbutazone it is subjected to rigorously restricted indications by some national regulatory authorities. See WHO comment for phenylbutazone.**

Product Name **Moxisylyte**

C.A.S. number **54-32-0**

Scientific and common names, and synonyms

THYMOXAMINE

4-(2-DIMETHYLAMINOETHOXY)5-ISOPROPYL-2-METHYLPHENYL ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**28 Jun 1993**	The manufacturer of moxisylyte has decided to withdraw the product from the market in France. The action was taken in the light of evidence of dose-dependent hepatotoxicity and after discussion with the National Pharmacovigilance Commission. Although patients have recovered after withdrawal of therapy, the benefit/risk ratio for this product is considered unfavourable. (Reference: (FRAARN) Adverse Reaction Newsletter, No.2, p.9, June 1993) **WHO Comment : Moxisylyte was introduced in the late 1980s. It belongs to the group of a-adrenergic blocking agents. In France it is indicated for the treatment of manifestations of benign prostatic hypertrophy. It is also marketed in the UK at lower dosages for the treatment of peripheral vascular disorders (Raynaud's disease).**

Product Name **Mucopolysaccharide polysulfuric acid ester**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**May 1988**	The Intercantonal Office for Drug Control has suspended indefinitely the marketing authorization for products containing mucopolysaccharide polysulfuric acid ester.
FRA	**1992**	Acting on the advice of the National Commission for Pharmacovigilance, the Ministry of Health suspended for one year the marketing authorization for a mixture of aqueous calf cartilage and bone marrow extract indicated as a chondroprotective agent. The decision was taken having regard to reports of allergic reactions. (Reference: (FRARP) La Revue Prescrire, 12(121), 415, 1992)

Product Name **Mucopolysaccharide polysulfuric acid ester**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PRT	**02 Jul 1992**	The Ministry of Health suspended the marketing authorization for a product containing mucopolysaccharide polysulfuric acid ester indicated as a chondroprotective agent pending a thorough evaluation of reported adverse reactions. (Reference: (PRTMH) Ministry of Health, , , 02 July 1992)
AUT	**07 Jul 1992**	The Ministry of Health suspended a product indicated as a chondroprotective agent and containing mucopolysaccharide polysulfruic acid ester (Ateparon(R): Luitpold) pending the results of further investigations. The decision was taken after two deaths associated with the use of this product were reported in Germany. The product containing mucopolysaccharide polysulfuric acid ester was initially suspended at the begining of 1988 after reports of serious adverse reactions including cerebral bleeding which gave rise to concern about its safety. It was reintroduced in 1989 since results did not confirm a causal relationship at the time. (Reference: (AUTMH) Ministry of Health, , , 07 July 1992)
DEU	**28 Jul 1992**	The Federal Health Office amended the product information for a topical mucopolysaccharide polysulfuric acid ester indicated as treatment for thrombophlebitis, varicose veins, haematoma, and oedema to alert prescribers to cases of skin irritation and allergy. The contraindications have been extended to patients known to be hypersensitive to any component of the product. The manufacturer of a product containing mucopolysaccharide polysulfuric acid ester and indicated as a chondroprotective agent voluntarily withdrew the product from the market. (Reference: (DEUCDC) Communication, , , 28 July 1992) (Reference: (BGHBL) Bundesgesundheitsblatt, 2/92, 109, Feb 1992) **WHO Comment : Mucopolysaccharide polysulfuric acid ester is a heparinoid used in the treatment of rheumatoid arthritis.Those formulations of mucopolysaccharide polysulfuric acid esters indicated for topical application have been associated with adverse drug reactions in the form of skin irritations. In 1992 contraindications for the topical mucopolysaccharide polysulfuric acid ester (Huridoid R) were altered to include all patients known to be hypersensitive to any component of the product.**

Product Name **Muzolimine**

C.A.S. number **55294-15-0**

Scientific and common names, and synonyms

3H-PYRAZOL-3-ONE, 5-AMINO-2-(1-(3,4-DICHLOROPHENYL)ETHYL)-2,4-DIHYDRO-

3-AMINO-1-(3,4-DICHLORO-ALPHA-METHYLBENZYL)-2-PYRAZOLIN-5-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1987**	Following discussions with the Federal Health Office, the manufacturer has voluntarily suspended the sale of products containing muzolimine.
FRA	**1987**	Following discussions with the Directorate of Pharmacy and Medicines, the manufacturer has voluntarily suspended the sale of products containing muzolimine. (Reference: (FMOPL) Le Moniteur des Pharmacies et des Laboratoires, 1762(10), , 1987)
NOR	**1987**	Muzolimine is not approved for registration on grounds of positive carcinogenicity tests and because the risk of carcinogenic effect in man is not excluded. **WHO Comment : Reports of neurological adverse effects, including paraesthesiae and paralyses, associated with prolonged use of high dosages of muzolimine, were received shortly after its introduction in 1984.**

Product Name **Muzolimine**

C.A.S. number **55294-15-0**

Product Name **Nabilone**

C.A.S. number **51022-71-0**

Scientific and common names, and synonyms

9H-DIBENZO(B,D)PYRAN-9-ONE, 3-(1,1-DIMETHYLHEPTYL)-6,6A,7,8,10,10A- HEXAHYDRO-1-HYDROXY-6,6-DIMETHYL, TRANS-, (+/-)

(+/-)-3-(1,1-DIMETHYLHEPTYL-6,6A BETA,7,8,10,10A ALPHA-HEXAHYDRO-1- HYDROXY-6,6-DIMETHYL-9H-DIBENZO(B,D)PYRAN-9-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Apr 1987**	The Drug Enforcement Administration of the Department of Justice has placed nabilone under Schedule II of the Controlled Substances Act. (Reference: (FEREAC) Federal Register, 52(66), 11042-3, 1987) **WHO Comment : Nabilone is a structural analogue of dronabinol (delta-9-tetrahydrocannabinol), the major active component of cannabis.**

Product Name **Naftidrofuryl (parenteral formulations)**

C.A.S. number **31329-57-4**

Scientific and common names, and synonyms

NAFRONYL OXALATE

2-FURANPROPANOIC ACID, TETRAHYDRO-?-(1-NAPHTHALENYLMETHYL)-, 2-(DIETHYLAMINO)ETHYL ESTER,ETHANEDIOATE (1:1)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Feb 1995**	The Committee on Safety of Medicines, after having received 63 reports of adverse reactions associated with naftidrofuryl, considers that naftidrofuryl must not be given as a bolus and the rate of infusion should not exceed 200mg in 90 minutes, as indicated in the current data sheet. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol.21, , Feb 1995)
FRA	**May 1995**	The infusion formulation of naftidrofuryl has been withdrawn after a review showing that the risks of cardiac and neurological toxicity outweigh the benefit of intravenous administration. The oral form remains available for use. (Reference: (FRARP) La Revue Prescrire, Vol. 15(151), p.348, May 1995)
DEU	**26 Jan 1996**	The Federal Institute for Drugs and Medical Devices has revoked the marketing approval for the injectable formulation of the vasodilator, naftidrofuryl, after reports of two fatal cases of hypersensitivity reactions associated with its use. Subsequently cases of other serious adverse reactions were reported in other countries, including severe hepatic and cardiac reactions. (Reference: (DEUPZ) Pharmazeutische Zeitung, 141(6): 432, , 1996) **WHO Comment : Naftidrofuryl is a vasoactive spasmolytic used to treat peripheral vascular disease. It also improves the oxygen utilization in tissues.**

Product Name **Nandrolone decanoate (injectable)**

C.A.S. number **360-70-3**

Scientific and common names, and synonyms

ESTR-4-EN-3-ONE, 17-((1-OXODECYL)OXY)-, (17BETA)

NORTESTOSTERONE DECYLATE

Legislative or regulation action

Product Name **Nandrolone decanoate (injectable)**

C.A.S. number **360-70-3**

Scientific and common names, and synonyms

NORTESTERONE DECYCLATE

17BETA-HYDROXYESTR-4-EN-3-ONE DECANOATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, low-strength preparations were banned following unacceptable promotion encouraging their use in children suffering from malnutrition. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
FRA	**Apr 1998**	The Medicines Agency has withdrawn from the market all injectable formulations of the anabolic steroid, following a routine re-evaluation of the benefit/risk ratio showing a lack of clinical data to support the efficacy of the product in the claimed indication (confirmed osteoporosis in postmenopausal women. (Reference: (FRAAMC) Communiqué de Presse, , , 03 Apr 1998) **WHO Comment : Nandrolone decanoate, an anabolic steroid, was introduced in 1962. In 1982, low dosage preparations were prohibited in Bangladesh due to inadmissible promotion of products containing anabolic steroids for malnourished children. Higher dosage preparations of nandrolone decanoate remain available in many countries, including Bangladesh, for several highly specific but limited indications that apply to patients with chronic debilitating and emaciating diseases, particularly associated with neoplasia and some types of aplastic anaemia.**

Product Name **Nandrolone phenylpropionate (injectable)**

C.A.S. number **62-90-8**

Scientific and common names, and synonyms

ESTR-4-EN-3-ONE, 17-(1-OXO-3-PHENYLPROPOXY)-, (17BETA)-

NORTESTOSTERONE PHENYLPROPIONATE

NANDROLONE PHENPROPIONATE

17BETA-HYDROXYESTR-4-EN-3-ONE HYDROCINNAMATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, low-strength preparations were banned following unacceptable promotion encouraging their use in children suffering from malnutrition. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982) **WHO Comment : Nandrolone phenylpropionate, an anabolic steroid, was introduced in 1959. In 1982, low dosage preparations were prohibited in Bangladesh due to inadmissible promotion of products containing anabolic steroids for malnourished children. Higher dosage preparations of nandrolone phenylpropionate remain available in many countries, including Bangladesh, for several highly specific but limited indications that apply to patients with chronic debilitating and emaciating diseases, particularly associated with neoplasia and some types of aplastic anaemia.**

Product Name **Nebacumab**

Legislative or regulation action

Product Name **Nebacumab**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**1993**	The manufacturer of the human monoclonal HA-1A antibody, nebacumab, has withdrawn the product worldwide following preliminary results of a trial conducted in the United States of America which showed that there was no reduction in mortality in patients treated with nebacumab who had Gram-negative bacteraemia. Furthermore, mortality was increased among patients who did not have Gram-negative bacteraemia receiving nebacumab than among those receiving placebo.

Product Name **Nefazodone**

C.A.S. number **2004-0-0008**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**01 Mar 2003**	Nefazodone suspended due to life-threatening hepatotoxicity. (Reference: (ESPSMA) Communication to WHO, , , 01 Mar 2003)
TUR	**21 Mar 2003**	The Directorate General of Pharmaceuticals and Pharmacy has decided to suspend the license for nefazodone hydrocholride preparations (Serzone) held by Bristol Meyers Squibb Drugs Inc. in Turkey since the latest data received by the Turkish Ministry of Health as well as worldwide developments that suggest acute hepatic failure associated with nefazodone use. (Reference: (TURDPC) Communication to WHO, , , 21 Mar 2003)
CAN	**27 Nov 2003**	Sale of nefazodone has been discontinued in Canada due to adverse hepatic events. (Reference: (CANBMS) "Dear Healthcare Professional " letter, , , 02 Oct 2003)
SGP	**01 Mar 2004**	Withdrawn from the market. (Reference: (SGPHSA) Communication to WHO, , , 01 Mar 2004)

Product Name **Neomycin sulfate**

C.A.S. number **1405-10-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned since it has been shown to cause malabsorption in children and to be of little or no therapeutic value. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
PHL	**Jul 1982**	All anti-diarrhoeal preparations for oral administration containing this product have been banned. Most cases of diarrhoea have been found to be resistant to the drug and its constant use promotes pseudomembranous colitis in infants and children. Neomycin can cause other serious adverse effects including renal damage, neuro-muscular blockage and ototoxicity, possibly leading to deafness in some patients. (Reference: (PHADO) Administrative Order, 24, , July 1982)
NGA	**1983**	Because of the risk of bacterial resistance arising from the use of anti-diarrhoeals containing neomycin in small amounts, these products have been withdrawn. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988)
		WHO Comment : Neomycin sulfate, a broad-spectrum antibiotic, was first isolated in 1949 and has subsequently been included in topical, oral and parenteral

Product Name **Neomycin sulfate**

C.A.S. number **1405-10-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		preparations. Its value in the treatment of diarrhoea is widely questioned although it is still contained in a number of widely available antidiarrhoeal preparations. In some countries the officially approved indications for oral preparations are restricted to the preparation of the bowel prior to surgery and the management of hepatic coma.

Product Name **Nevirapine**

C.A.S. number **129618-40-2**

Scientific and common names, and synonyms

11-CYCLOPROPYL-5,11-DIHYDRO-4-METHYL-6H-DIPYRIDO[3,2-B:2 1,3 1-E][1,4]DIAZEPIN-6-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Feb 2001**	Precautionary note added about hepatotoxicity. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)

Product Name **Nialamide**

C.A.S. number **51-12-7**

Scientific and common names, and synonyms

ISONICOTINIC ACID 2-((2-BENZYLCARBAMOYL)ETHYL)HYDRAZIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Nov 1974**	The Ministry of Health and Welfare withdrew all products containing isocarboxazid and nialamide on the grounds that they lack substantial evidence of efficacy and safety.
IND	**1983**	Prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
CUB		Prohibited from use by the National Formulary Commission (1982) on grounds of reported toxicity and in view of the availability of other less toxic drugs.
DNK		Withdrawn from the market by the manufacturer.
SAU		Products now controlled by the authorities.
THA		Products have been banned.
VEN		Banned for use and/or sale.
		WHO Comment : Nialamide, a monoamine oxidase inhibitor (MAOI), was introduced in 1959 for the treatment of depressive illness. Subsequently concern regarding potentially serious interactions between MAOIs and foods containing tyramine inspired much restrictive regulatory action. However, MAOIs still retain a place in the treatment of serious depressive illness although there is no international consensus on which compounds should be preferred. Thus nialamide remains available in several countries.

Product Name **Nifedipine**

Legislative or regulation action

C.A.S. number **21829-25-4**

Scientific and common names, and synonyms

3,5-PYRIDINEDICARBOXYLIC ACID, 1,4-DIHYDRO-2,6-DIMETHYL-4-(2-NITROPHENYL)-, DIMETHYL ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**11 Mar 1996**	In agreement with the Australian Drug Evaluation Committee, the manufacturer has withdrawn the 10mg capsule formulation of nifedipine, since the tablet formulation has now been approved. This action was based on reports of serious adverse effects related to the more rapid release and higher peak serum concentrations from the capsule formulation. The Committee has deferred its decision on the 5mg capsule for twelve months. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, Res No. 5969, , 11 Mar 1996)
IRL	**May 1996**	Following review and evaluation of data at a national level, the Irish Medicines Board recommends that, regarding ischaemic heart disease the use of nifedipine should be restricted to the prophylaxis of stable angina. Its use is contraindicated in patients with unstable angina. (Reference: (IRDDS) Drug Safety Newsletter, No.2, , May 1996)
JPN	**Jul 1996**	The Pharmaceutical Affairs Bureau has revised the data sheet for nifedipine, which is now contraindicated in patients with acute myocardial infarction and care is recommended in its administration in patients with unstable angina pectoris. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.138, , July 1996)
DEU	**1 Jul 1997**	See under calcium channel blockers. **WHO Comment : Nifedipine is a dihydropyridine calcium channel blocker. It is listed in the WHO Model List of Essential Drugs. The 10mg tablet is retained on the list for short-term treatment of hypertension. Sustained-release preparations are advised for long-term treatment.**

Product Name **Nimesulide**

C.A.S. number **51803-78-2**

Scientific and common names, and synonyms

N-(4-NITRO-2-PHENOXYPHENYL)METHANESULFONAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**May 2002**	The Spanish Committee on Safety of Medicines has recommended the temporary suspension of nimesulide pending evaluation of reports of hepatotoxicity with the drug by the European Agency for the Evaluation of Medicinal Products. (Reference: (ESPCDR) Communication on Drug Risks, No.2002/03, , 03 May 2002)
BGD	**11 Jun 2003**	The manufacture, distribution, sale and use of all dosage forms of nimesulide paediatric preparations were officially banned in Bangladesh. (Reference: (BGDDDA) Communication to WHO, , , 11 June 2003)

Product Name **Nitrefazole**

C.A.S. number **21721-92-6**

Scientific and common names, and synonyms

2-METHYL-4-NITRO-1-(4-NITROPHENYL)IMIDAZOLE

Legislative or regulative action

Legislative or regulation action

Product Name **Nitrefazole**

C.A.S. number **21721-92-6**

Country	Effective Date	Description of action taken Grounds for decision
DEU 1	**Jun 1984**	The Federal Health Office has withdrawn nitrefazole following reports of hepatotoxicity.
AUT	**Jul 1984**	The Federal Ministry of Health and Environmental Protection has withdrawn nitrefazole following reports of hepatotoxicity. **WHO Comment : Nitrefazole, which is used in the treatment of alcoholism, was introduced in the early 1980s. By 1984 its use had been associated with hepatotoxic reactions, some of which were fatal. This led to its withdrawal in at least two countries. WHO has no information to suggest that preparations containing nitrefazole remain commercially available.**

Product Name **Nitrendipine**

C.A.S. number **39562-70-4**

Scientific and common names, and synonyms

(+/-)-ETHYLMETHYL-1,4-DIHYDRO-2,6-DIMETHYL-4-(M-NITROPHENYL)-3,5- PYRIDINEDICARBOXYLATE,

3,5-PYRIDINEDICARBOXYLIC ACID, 1,4-DIHYDRO-2,6-DIMETHYL-4-(3- NITROPHENYL)-, ETHYL METHYL ESTER, (+/-)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS		Registration refused on grounds of inadequate data on pharmacokinetics, absolute bioavailability and toxicity, and insufficient clinical data on long-term safety, use in patients with a history of angina and concomitant use with angiotensin-converting enzyme blocking agents and other drugs likely to be taken by the target population. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, 133, 06, 1968)

Product Name **Nitrofural**

C.A.S. number **59-87-0**

Scientific and common names, and synonyms

5-NITRO-2-FURALDEHYDE SEMICARBAZONE

HYDRAZINECARBOXAMIDE, 2-((5-NITRO-2-FURANYL)METHYLENE)-

NITROFURAZONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	A nitrofuran compound withdrawn from all marketed preparations in Japan on the grounds that it had been superseded by safer and more effective preparations.
ITA	**1983**	The following warning has been inserted on the label: "Experimental data on animals recommend the use of the product for systemic route only for short periods and under the physician's guidance".
DEU	**May 1992**	The indications for products containing nitrofural were restricted to the treatment of furuncles, carbuncles, abscesses, burns, chronic ulcers, mastitis and skin transplants; the use of the drug in trivial infections was approved only when alternative therapeutic interventions had failed and for no longer than is required to assure a satisfactory response. (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(21), VIII, 1992) **WHO Comment : Nitrofural, a nitrofuran derivative with broad-spectrum antibacterial activity, was introduced in the early 1940s for the topical treatment of**

Product Name **Nitrofural**

C.A.S. number **59-87-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		various skin conditions. It has also been used systemically for the treatment of African trypasonomiasis. Following recent findings of in vitro mutagenicity and of carcinogenicity in experimental animals, use of topical preparations containing this substance was restricted in Germany. Nitrofural remains registered in several countries and the World Health Organization is not aware of restrictive action having been taken elsewhere.

Bibliographical references

IARC MONOGRAPH, 50, 195, 1990
WHO FOOD ADD., 31, 125, 1993

Product Name **Nitrofurantoin**

C.A.S. number **67-20-9**

Scientific and common names, and synonyms

2,4-IMIDAZOLIDENEDIONE, 1-[[5-NITRO-2-FURANYL)METHYLENE]AMINO]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**23 Nov 1993**	The Drug Commission of the German Medical Profession recommended that the use of preparations containing the nitrofuran derivative, nitrofurantoin, be restricted to cases of acute, superficial and uncomplicated infections of the bladder and the urinary tract. This recommendation is based both on evidence of limited efficacy and severe adverse reactions associated with use of these products, including neuropathy, lung reactions and hepatitis. Nitrofurantoin is contraindicated in patients with impaired renal function and in all persons over 60 years of age. Either creatinine serum levels or creatinine clearance should be measured before starting therapy with nitrofurantoin. Fixed combinations of nitrofurantoin with other drugs should be avoided. (Reference: (DEUCDC) Communication, , , 23 Nov 1993)

Product Name **Nitroxoline**

C.A.S. number **4008-48-4**

Scientific and common names, and synonyms

5-NITRO-8-QUINOLINOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1973**	The National Drugs Advisory Board has withdrawn nitroxoline from the market. No serious adverse reactions have been reported in human beings, but cataracts have developed in rats in prolonged dosage studies. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, 19, , 1973)
THA	**Jan 1975**	Registration permit has been revoked for pharmaceutical preparations containing this ingredient.
VEN		Not approved for use and/or sale.
		WHO Comment : Nitroxoline, a urinary antiseptic, was introduced in the mid-1960s. By the early 1970s long-term animal studies revealed the development of cataracts in rats and, although no serious adverse effects had been reported in man, the drug was withdrawn in at least two countries. Preparations containing nitroxoline

Product Name **Nitroxoline**

C.A.S. number **4008-48-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		remain widely available.

Product Name **Nomifensine**

C.A.S. number **24526-64-5**

Scientific and common names, and synonyms

8-ISOQUINOLINAMINE, 1,2,3,4,-TETRAHYDRO-2-METHYL-4-PHENYL,

8-AMINO-1,2,3,4-TETRAHYDRO-2-METHYL-4-PHENYLISOQUINOLINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Jan 1986**	The antidepressant nomifensine has been withdrawn worldwide by the major manufacturer following reports of cases of haemolytic anaemia associated with its use, some of which were fatal.
DEU	**Jan 1986**	Withdrawn from the market by the major manufacturer following reports of cases of haemolytic anaemia associated with its use.
GBR	**Jan 1986**	Withdrawn from the market by the major manufacturer following reports of cases of haemolytic anaemia associated with its use.
		WHO Comment : Nomifensine, an antidepressant indicated for the treatment of a wide range of depressive illness, was introduced in 1976. Subsequently rare cases of haemolytic anaemia - sometimes fatal - thrombocytopenia, hepatotoxicity and fever were associated with the use of the drug. Following discussions with regulatory authorities in the United Kingdom and the Federal Republic of Germany the major manufacturer withdrew all preparations containing nomifensine worldwide in January 1986.

Product Name **Norethisterone enantate (injectable)**

C.A.S. number **3836-23-5**

Scientific and common names, and synonyms

NORETHINDRONE

19-NORPREGN-4-EN-20-YN-3-ONE, 17-HYDROXY-, (17ALPHA)-

17-HYDROXY-19-NOR-17ALPHA-PREGN-4-EN-20-YN-3-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1983**	The use of injectable steroid preparations for contraceptive purposes has been restricted to use by women with a normal menstrual cycle who do not tolerate other forms of contraception. Pregnancy must be excluded before treatment is started and it is contraindicated during lactation. The label must bear a warning about adverse effects including menstrual disturbances and headaches.
		WHO Comment : Norethisterone enantate was introduced in 1978 for use as a long-acting injectable contraceptive. Risk-benefit judgements differ significantly from country to country, having regard to differing national circumstances. Norethisterone enantate is, however, widely available and is included as a complementary drug in the WHO Model List of Essential Drugs. **(Reference: (WHODI) WHO Drug Information, 2(1), , 1988)**

Product Name **Norethisterone enantate (injectable)**

C.A.S. number **3836-23-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Noscapine**

C.A.S. number **128-62-1**

Scientific and common names, and synonyms

NARCOTINE

1(3H)-ISOBENZOFURANONE, 6,7-DIMETHOXY-3-(5,6,7,8-TETRAHYDRO-4-METHOXY-6-METHYL-1,3-DIOXOLO[4,5-G]-ISOQUINOLIN-T-YL), [S-(R*,S*)]

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1990**	The National Drugs Advisory Board has recommended that antitussives containing the opioid, noscapine, should not be approved for use in children. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , 27, 1990)
DEU	**1991**	The approved information of products containing noscapine was amended to state that pregnancy must be excluded before treatment is instituted; conception should be avoided during treatment; and breastfeeding should be discontinued until 24 hours after treatment. These amendments were made in view of the mutagenic potential of noscapine. (Reference: (DAZ) Deutsche Apotheker Zeitung, 131(36), VI, 1991)
GBR	**1991**	Cough mixtures containing noscapine were voluntarily withdrawn by the manufacturer and all other noscapine products were placed under prescription control, following concern that the drug may be genotoxic. In addition, the manufacturer reformulated preparations containing papaveretum to exclude noscapine. (Reference: (GBRPHJ) The Pharmaceutical Journal, , 783, 14 Dec 1991) (Reference: (GBRCSM) Committee on Safety of Medicines, Current problems, 31, , June 1991)
NLD	**1991**	Following discussions with the Board for the Evaluation of Medicines, manufacturers and importers discontinued marketing of products containing noscapine, having regard to their mutagenic potential. Extemporaneous preparations containing noscapine remained available on medical prescription and with an absolute contraindication for pregnant women. (Reference: (GENMB) Geneesmiddelenbulletin, 25/9, 34, 1991)
MYS	**Jan 1992**	The Drug Control Authority has issued a warning to all prescribers that noscapine has been shown to exerta mutagenic effect in vitro. Its use is contraindicated in women of childbearing potential. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 6(2):2, , 1992) **WHO Comment : Noscapine, a centrally-acting cough suppressant and one of several alkaloids present in papaveretum (opium concentrate) was introduced into medicine many years ago. Subsequently, it was shown to increase the number of chromosomes in mammalian cell lines maintained in vitro. Although the clinical significance of this finding is uncertain, restrictive action was taken in a few countries since the possibility of a genotoxic effect cannot be excluded. On 4 December 1992 the European Committee on Proprietary Medicinal Products concluded that the available evidence does not indicate that use of noscapine holds any significant hazard. The Swedish Medical Products Agency also concluded that there is no justification to restrict the use of noscapine in women of childbearing age.**

Product Name **Novobiocin**

C.A.S. number **303-81-1**

Scientific and common names, and synonyms

BENZAMIDE,N-(7-((3-O-(AMINOCARBONYL)-6-DEOXY-5-C-METHYL-4-O-METHYL-BETA-L-LYXO-HEXOPYRANOSYL)OXY)-4-HYDROXY-8-METHYL-2-OXO-2H-1-BENZOPYRAN-3-YL)-4-HYDROXY-3-(3-METHYL-2-BUTENYL)-

STRETONOVICIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	**Jul 1987**	All products containing novobiocin may not be registered. (Reference: (MYSDC) Malaysian Drug Control Authority, No.11, , July 1987) **WHO Comment : Novobiocin, an antibiotic with a narrow spectrum of activity, was introduced in 1956. Its use was subsequently associated with serious adverse effects including blood dyscrasias. In view of its toxicity there are no current valid indications for its use. Although preparations containing novobiocin may remain available in some countries it has largely lapsed into disuse.**

Product Name **Omeprazole**

C.A.S. number **73590-58-6**

Scientific and common names, and synonyms

1H-BENZIMIDAZOLE, 5-METHOXY-2-[[(4-METHOXY-3,5-DIMETHYL-2-PYRIDINYL)METHYL]SULFINYL]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**11 Aug 1995**	The German Federal Health Office has suspended marketing authorization for bolus injection formulations of pharmaceutical products containing the proton pump inhibitor, omeprazole, from 2 August 1994. The revocation of marketing authorization took effect from 31 July 1995. The other parenteral dosage formulation (infusion) and the oral dosage formulation may still be marketed with revised product information listing visual and auditory adverse reactions. (Reference: (DEUCFI) Communication, 2-Aug-94, 31-May-9, 11 Aug 1995) **WHO Comment : Omeprazole was introduced in the 1980s. It belongs to a group of agents that have an inhibitory effect on the secretion of hydrochloric acid in the stomach (gastric acid proton pump inhibitors) and is used in the treatment of upper gastrointestinal tract disorders. The Committee for Proprietary Medicinal Products of the European Commission has concluded that a causal association between the reactions reported in Germany and the use of omeprazole had not been established. Nevertheless oral administration should be preferred.** **(Reference: (CPMPPO) Pharmacovigilance Opinion, No.16 , , 25 July 1994)**

Product Name **Opium in antitussive preparations**

C.A.S. number **8008-60-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**Jun 1982**	Banned in tincture and spirit form due to its liability for addiction and misuse.
ITA		This substance for use as an antitussive has been removed from the market owing to an unfavourable risk-benefit ratio and lack of substantial evidence of efficacy. **WHO Comment : Opium, which is extracted from the unripe seed capsules of the**

Product Name **Opium in antitussive preparations**

C.A.S. number **8008-60-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		poppy plant, has been used throughout recorded history both in a medicinal and recreational context. Of the pharmacologically active constituents, several alkaloids, including morphine, codeine, papaverine and noscapine, have wide clinical use. Opium produces both physical and psychological dependence and is controlled under Schedule I of the 1961 Single Convention on Narcotic Drugs. **(Reference: (UNSND) United Nations Single Convention on Narcotic Drugs I, , , 1972)**

Product Name **Oral rehydration salts**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NPL	**2 Jul 1986**	Import, sale and distribution of oral rehydration salts which do not comply with WHO recommendations are prohibited.
OMN	**Aug 1988**	Import and marketing of oral rehydration salts which do not comply with the WHO/UNICEF formula were prohibited. (Reference: (OMNCR) Circular, 21/88, , June 1988)

Product Name **Orgotein**

C.A.S. number **9016-01-7**

Scientific and common names, and synonyms

BOVINE SUPEROXIDE DISMUTASE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**May 1990**	The marketing authorization for products containing orgotein has been withdrawn, on the grounds that a great number of anaphylactic reactions associated with their use has been reported, particularly in the Federal Republic of Germany, and that they are of questionable efficacy in some of the indications claimed by the manufacturers. (Reference: (CHBCM) Bulletin Mensuel, 8, , 24 Sep 1990)
DEU	**25 Mar 1994**	The Federal Health Office has suspended as from 25 March 1994 the marketing authorization for pharmaceutical products containing orgotein on the grounds that unjustifiable risk outweighs the benefits. The Agency has received about 400 reports of adverse reactions - 90 of these reports describe serious hypersensitivity reactions, some of which were fatal. (Reference: (DEUPD) BGA Pressedienst, 19/1994, , 30 Mar 1994)
PRT	**20 May 1994**	The Ministry of Health has suspended the marketing authorization for medicines containing orgotein (bovine superoxide dismutase) for a period of 90 days. The products, which are indicated for the treatment of rheumatic conditions, radiation-induced cystitis and interstitial cystitis, have been associated with severe adverse effects, including hypersensitivity reactions. (Reference: (PRTOC) Official Communication: Suspension of medicines containing orgotein, , , 20 May 1994)
		WHO Comment : Orgotein, bovine superoxide dismutase with anti-inflammatory activity, was introduced in 1968 for the management of rheumatic disorders and for

Product Name **Orgotein**

C.A.S. number **9016-01-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		the amelioration of side-effects of radiotherapy. Although not widely registered, it remains available in other countries.

Product Name **Oxeladin**

C.A.S. number **468-68-1**

Scientific and common names, and synonyms

2-(2-DIETHYLAMINOETHOXY)ETHYL 2-ETHYL-2-PHENYLBUTYRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**14 Mar 1994**	The Institute has issued a Rapid Alert to all the pharmaceutical companies concerned requesting their comments on a graduated plan of withdrawal of marketing authorizations for all medicinal products containing oxaledin pending further studies on the carcinogenicity of the product. (Reference: (DEURFI) Rapid Alert - Pharmacovigilance, , , 14 Mar 1995)
FRA	**19 Apr 1995**	Since the results of the German study on the potential carcinogenicity of oxeladin were disseminated, the Medicinal Products Agency has recalled all batches of pharmaceutical products containing, oxeladin (Paxeladine®: Beaufour). (Reference: (FRAAMN) Notification, , , 19 Apr 1995)

Product Name **Oxeladin citrate**

C.A.S. number **52432-72-1**

Scientific and common names, and synonyms

2-(2-DIETHYLAMINOETHOXY)ETHYL 2 ETHYL-2-PHENYLBUTARATE DIHYDROGEN CITRATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARM	**Jul 2000**	The Drug and Medical Technology Agency rejected the registration of oxeladin since studies in Germany have shown potential carcinogenicity of the drug. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)

Product Name **Oxyphenbutazone**

C.A.S. number **129-20-4**

Scientific and common names, and synonyms

BUTANOVA

HYDROXYPHENYLBUTAZONE

HYDROXYPHENBUTAZONE

OXAZOLIDIN

3,5-PYRAZOLIDINEDIONE, 4-BUTYL-1-(4-HYDROXYPHENYL)-2-PHENYL-

4-BUTYL-1-(P-HYDROXYPHENYL)-2-PHENYL-3,5-PYRAZOLIDINEDIONE

Legislative or regulative action

Legislative or regulation action

Product Name **Oxyphenbutazone**

C.A.S. number **129-20-4**

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Indications are restricted to acute exacerbations of rheumatoid arthritis and osteoarthritis. Doctors are advised to prescribe this drug only to adults and for periods of no longer than one week.
AUT	**1984**	Indications are restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984)
CYP	**1984**	Withdrawn from the market due to the potential to cause serious adverse reactions. Exemption applies for products intended for local ophthalmic use.
FIN	**1984**	Oral and rectal preparations have been withdrawn from the market.
IRL	**1984**	Approved indications for phenylbutazone and oxyphenbutazone revised: now restricted to cases of acute gout, ankylosing spondylitis, and chronic arthritis in patients unsuited to alternative therapy. Treatment of acute gout should not extend beyond 7-10 days and the lowest effective dose should be used. Treated arthritic patients should remain under regular surveillance and specialist supervision. Doctors are advised not to prescribe these drugs for children or pregnant women and to reduce the dose in elderly patients. Certain contraindications include previous or existing gastrointestinal disease, blood dyscrasias, hepatic or renal dysfunction, cardiac or pulmonary insufficiency, thyroid or salivary gland disorders or hypersensitivity. Combination products with other active ingredients have been withdrawn from use.
TUN	**1984**	All preparations of oxyphenbutazone have been banned for use.
ARE	**19 Mar 1984**	Pharmaceutical preparations containing oxyphenbutazone are banned. (Reference: (UAEMD) Ministry of Health Decree, No.480, , 1984)
KWT	**Apr 1984**	Approved indications have been restricted to ankylosing spondylitis and acute gout and oxyphenbutazone should not be dispensed without a prescription. (Reference: (KTMD) Ministerial Decree, 160/84, , 1984)
BRB	**25 Jun 1984**	Indications for oxyphenbutazone are limited to active ankylosing spondylitis, gout and pseudo-gout. It may also be used to treat acute exacerbations of rheumatoid arthritis and osteoarthritis and acute non-articular rheumatoid disease unresponsive to other non-steroidal anti-inflammatory drugs.
ZWE	**Jul 1984**	The Drugs Control Council requested manufacturers to withdraw preparations containing oxyphenbutazone from the market and to exhaust stocks by June 1985. (Reference: (ZWDCC) Drugs Control Council, News Bulletin, , , 1985)
ESP	**15 Jul 1984**	Approved indications have been restricted to inflammatory arthritic conditions, active ankylosing spondylitis and other inflammatory spondylopathies, acute attacks of gout and pseudo-gout, acute exacerbations of rheumatoid arthritis and other polyarthritic conditions. Parenteral preparations have been restricted to hospital use only.
JOR	**1 Oct 1984**	Registration of all pharmaceutical products containing oxyphenbutazone has been withdrawn. (Reference: (JORMH) Ministry of Health Resolution, No.4/2/1559, , Apr 1984)
BGD	**Nov 1984**	Use has been banned due to reported severe adverse reactions.
DEU	**1985**	Indications are restricted to severe exacerbations of rheumatism and acute gout. Duration of oral treatment should not exceed one week. Parenteral preparations are indicated only for initiating therapy. A single injection only is recommended because local tissue damage may occur. Preparations are contraindicated in children under 14 years of age.
ETH	**1985**	Banned from the market due to reported serious adverse reactions.
GRC	**1985**	Withdrawn from the market.
NLD	**1 Jan 1985**	Parenteral dosage forms and combination products containing oxyphenbutazone have

Legislative or regulation action

Product Name **Oxyphenbutazone**

C.A.S. number **129-20-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		been withdrawn from the market. The approved indications have been restricted to the treatment of spondyloarthritis unresponsive to other non-steroidal anti-inflammatory agents. (Reference: (NETJAN) Nederlands Tijdschrift voor Geneeskunde, 128(50), , 1984)
SWE	**1 Jan 1985**	Withdrawn from the market after joint discussions between the National Board of Health and Welfare and the importer on the grounds of serious blood dyscrasias associated with its use.
NZL	**Apr 1985**	Voluntarily withdrawn from the market.
CHL	**4 Jun 1985**	Preparations containing oxyphenbutazone have been prohibited. (Reference: (CHLRS) Resolution of the Minister of Health, No. 2660, , Apr 1984)
GHA	**1986**	Use of oxyphenbutazone has been banned.
OMN	**1986**	Oxyphenbutazone for internal use (tablets, injections, syrups and suppositories) should neither be imported nor marketed after the stock in the local market has been used.
TUR	**1 Mar 1986**	The Ministry of Health has prohibited the manufacture and sale of preparations containing oxyphenbutazone for oral, rectal and topical use.
MYS	**Jan 1987**	All products containing oxyphenbutazone have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.6, , Oct 1986)
HKG	**1 Sep 1987**	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing oxyphenbutazone.
BEL	**1 Jan 1988**	Preparations containing oxyphenbutazone have been placed in List IV of the Arr^t, du R,gent of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and cross-bones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale pharmaceutical products containing oxyphenbutazone (tablet formulation). This action was based on the potential of these products to induce suppression of the bone marrow. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 41(1), , 1992)
BHR		Preparations containing oxyphenbutazone have been withdrawn.
COG		Injectable preparations have been withdrawn from the market. Oral preparations have indications restricted to the treatment of ankylosing spondylitis, gout and periarticular rheumatism.
GBR		All product licences for preparations containing oxyphenbutazone have been revoked with the exception of those for eye ointments.
HUN		Indications are restricted to ankylosing spondylitis and related diseases, acute gout attacks, acute exacerbations of rheumatoid arthritis and inflamed osteoarthritis. The duration of treatment is restricted to 14 days. There is only one registered preparation containing oxyphenbutazone; its dispensing is restricted to individual cases authorized by the Ministry of Health at special request.
ISR		The pharmaceutical administration of the Ministry of Health withdrew from use all preparations containing oxyphenbutazone.
		WHO Comment : Oxyphenbutazone, a pyrazolone derivative with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1955 for the treatment of rheumatic disorders. It is one of the active metabolites of phenylbutazone and has a similar spectrum of activity including an association with serious and sometimes fatal adverse reactions, notably cases of aplastic anaemia and agranulocytosis. Many national drug regulatory authorities consider that more recently introduced

Product Name **Oxyphenbutazone**

C.A.S. number **129-20-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		drugs offer a safer alternative for most, if not all, patients requiring antiinflammatory agents. Although oxyphenbutazone has been widely withdrawn it remains available in some countries.

Product Name **Oxyphenisatine acetate**

C.A.S. number **115-33-3**

Scientific and common names, and synonyms

ACETPHENOLISATIN

BISATIN

DIPHESATIN

DIASATIN

DIACETYLDIPHENOLISATIN

DIACETOXYDIPHENYLISATIN

ISAPHENIN

OXYPHENISATIN DIACETATE

PHENLAXINE

2H-INDOL-2-ONE,3,3-BIS(4-ACETYLOXY)PHENYL)-1,3-DIHYDRO-

3,3-BIS(P-HYDROXYPHENYL)-2-INDOLINONE DIACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CUB	**1970**	Banned for use following reports of hepatotoxicity.
AUS	**1972**	The Department of Health of the Commonwealth withdrew from the market all preparations containing oxyphenisatine acetate (diacetoxydiphenolisatin) and triacetyldiphenolisatin. This recommendation was based on an increasing number of reports, including one fatality, implicating these compounds as a cause of acute and chronic liver disease.
USA	**Feb 1972**	Preparations for oral or rectal use withdrawn by the Food and Drug Administration (oral preparations withdrawn 2/72; rectal preparations withdrawn 3/73) on grounds of safety considerations. After a review of the clinical evidence, the FDA concluded that in view of the hazards associated with the use of these drugs, including hepatitis and jaundice, and the availability of alternative drugs having a wider margin of safety, the benefit/risk ratio did not justify their continued marketing. (Reference: (FEREAC) Federal Register, 38, 6419, Mar 1973)
JPN	**Mar 1972**	Banned by the Pharmaceutical Affairs Bureau in over-the-counter drugs, due to hepatic damage (e.g. jaundice) observed with long-term use.
NOR	**1974**	Withdrawn from the market.
DNK	**Oct 1975**	Registration for these products has been cancelled. (Reference: (DENBH) Danish National Board of Health, Circular Letter, , , July 1985)
DEU	**1976**	Withdrawn following a review of published cases of acute and chronic liver disease.
ITA	**1976**	Preparations for oral, rectal and topical use have been withdrawn from the market due to the risk of sensitization.
AUT	**Mar 1977**	Withdrawn by the Federal Ministry of Health and Environmental Protection following reports of cases of acute and chronic liver disease associated with this drug.

Product Name **Oxyphenisatine acetate**

C.A.S. number **115-33-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**1978**	All products containing this substance have been withdrawn except for rectal suppositories for single-dose use.
CAN	**1 Jul 1978**	All preparations containing this substance have been withdrawn from sale. (Reference: (CANGZ) Canada Gazette, 113/(10), , 1979)
FRA	**30 Mar 1979**	The Commission on Drug Monitoring of the Ministry of Health has called for the exclusion of oxyphenisatine from proprietary laxative products, having regard to the established relationship between this substance and chronic hepatic damage.
KWT	**Jan 1980**	The importation of oxyphenisatine and related compounds is prohibited.
BEL	**14 Jan 1981**	Pharmaceutical preparations containing oxyphenisatine acetate are prohibited. (Reference: (BELAR) Arrêté Royal, , , Jan 1981)
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
ESP	**1 Mar 1985**	Products containing oxyphenisatine have been withdrawn from the market because of its potential to induce hepatitis. (Reference: (ESPMC) Programa Selectivo de Revisión de Medicamentos, , , 1985)
CYP		Products containing oxyphenisatine acetate have been withdrawn having regard to the risk of liver damage in patients receiving this drug.
NLD		Products containing oxyphenisatine have been withdrawn from the market.
NZL		Voluntarily withdrawn from the market.
VEN		Not approved for use and/or sale.
		WHO Comment : Oxyphenisatine acetate was widely used as a laxative after its cathartic activity was first described in 1925. In 1969 its use was first associated with cases of acute and chronic liver disease. This association is considered by some, but not all, national drug regulatory authorities to warrant the withdrawal from the market of preparations containing oxyphenisatine and its derivatives.

Product Name **Oxytocin**

C.A.S. number **50-56-6**

Scientific and common names, and synonyms

L-CYSTEINYL-L-TYROSYL-L-ISOLEUCYL-L-GLUTAMINYL-L-ASPARGINYL-L-CYSTEINYL-L-PROLYL-LEUCYLGLYCINAMIDE CYCLIC (1 6) -DISULFIDE - LEUCYLGLYCINAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS		Oxytocin injections have been restricted for use only in public and private hospitals with maternity units and will no longer be available in retail pharmacies.

Product Name **Pangamic acid**

C.A.S. number **13149-68-3**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Pangamic acid**

C.A.S. number **13149-68-3**

Scientific and common names, and synonyms

GLUCONIC ACID 6-BIS(N-DI-ISOPROPYLAMINO)ACETATE

VITAMIN B15

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1984**	Withdrawn from the market having regard to its low benefit to risk ratio (mutagenicity). **WHO Comment : Pangamic acid, which is extracted from apricot kernels and rice bran, has been described as Vitamin-B15. Although there is no evidence that it is a vitamin, it remains available in some preparations sold in health food stores.**

Product Name **Paracetamol**

C.A.S. number **103-90-2**

Scientific and common names, and synonyms

ACETAMINOPHEN

ACETAMIDE, N-(4-HYDROXYPHENYL)-

P-(ACETYLAMINO)PHENOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Feb 1994**	The Ministry of Public Health has revised the product information for pharmaceutical products containing paracetamol to include a warning on hepatotoxicity if used over the recommended doses or prolonged use of more than five days. Patients with impaired hepatic or kidney function should consult their doctors of pharmacists before receiving the drug. (Reference: (THAFDA) Communication to WHO, , , 04 Feb 1994)
MYS	**Nov 1996**	The Drug Control Authority has decided to cancel the registration of all paracetamol 500-mg/5ml liquid preparations due to cases of overdosage in children associated with the use of paracetamol 500-mg/5ml instead of the 120-mg/5ml preparation. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 10(3): 11, , 1996)
GBR	**Apr 1997**	The Medicines Control Agency has proposed to restrict pack sizes of paracetamol and set a maximum that pharmacists are allowed to sell, because of the risk of overdosage. No changes are proposed for packs of effervescent tablets, granules or liquid products for general sale. (Reference: (GBRPHJ) The Pharmaceutical Journal, Vol.256, p.785, 30 Nov 1996)
THA	**Feb 2001**	Precautions in children's dosage for paracetamol drop formulation have been revised. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001) **WHO Comment : Paracetamol, a widely used analgesic and antipyretic is known, in case of overdose, to cause liver damage, frequently with fatal outcome. In recommended dosages this risk does not occur. Paracetamol is listed in the WHO Model List of Essential Drugs.**

Product Name **Paromomycin**

C.A.S. number **7542-37-2**

Scientific and common names, and synonyms

D-STREPTAMINE,O-2-AMINO-2-DEOXY-ALPHA-D-GLUCOPYRANOSYL-1(1-->4)-O-[O-2,6-DIAMINO-2,6-DIDEOXY-BETA-L-IDOPYRANOSYL-(1-->3)-BETA-D-RIBOFURANOSYL-(1-->5)]-2-DEOXY-

Legislative or regulation action

Product Name **Paromomycin**

C.A.S. number **7542-37-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**1989**	All parenteral forms of preparations containing paromomycin have been withdrawn, having regard to their unacceptably high toxicity. (Reference: (ESPINS) Información Terapéutica de la Seguridad Social, 13(1), 7, 1989) **WHO Comment : Paromomycin, an aminoglycoside antibiotic was introduced into medicine in 1959 for the treatment of protozoal, helminthic and bacterial infections. It has been associated, particularly when used by parenteral route, with severe adverse effects including renal damage, neuromuscular blockage and ototoxicity, possibly leading to deafness in some patients. This route of administration is now considered obsolete. However, parenteral dosage forms of paromomycin may still remain available in certain countries.**

Product Name **Paroxetine**

C.A.S. number **2004-0-0010**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**10 Jun 2003**	The CSM has advised that paroxetine should not be used in children and adolescents under the age of 18 years to treat depressive illness, due to its unfavourable risk benefit ratio. (Reference: (GBRLFC) Letter from the Chairman, , , 10 June 2003)

Product Name **Pectin**

C.A.S. number **9000-69-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
LIY	**May 1990**	The use of pectin for children was banned. (Reference: (LIYRL) Resolution of the General People's Health Committee, 141, , 21 May 1990)
IND	**11 Feb 1991**	The Central Government banned the manufacture and sale of combinations of fixed doses of pectin with any other drug. (Reference: (INDC) Drugs Controller, , , Mar 1992)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale all liquid preparations containing pectin. Pectin is of doubtful efficacy in the management of diarrhoea and its use may lead to increased salt and water loss. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992) **WHO Comment : Pectin is a purified carbohydrate product isolated from the rinds of citrus fruits or green apples. Its major constituent is polygalacteronic acid, and it is almost completely digested and absorbed in the intestine. Pectin became popular as a simple remedy for diarrhoea in the early 1900s. It does not affect the frequency of stool or stool weight. Use of such products diverts attention away from more important aspects of treatment, such as rehydration, proper nutrition and in the case of cholera and dysentery, appropriate antibiotics.**

Product Name **Pemoline**

C.A.S. number **2152-34-3**

Scientific and common names, and synonyms

4(5H-)-OXAZOLONE, 2-AMINO-5-PHENYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARG	**Nov 1996**	The Administración Nacional de Medicamentos, Alimentos y Technologia Medica has restricted the use of pemoline to special prescription control. Pemoline in combination with other agents will be supplied under official prescription. The action has been taken because pemoline has been used for a variety of indications without medical supervision. (Reference: (ARGBO) Boletín oficial, No.28.516, , 06 Nov 1996)
USA	**Mar 1997**	The manufacturer of the central stimulant, pemoline, has revised the product labelling to include a boxed warning describing liver failure and to indicate that pemoline should not ordinarily be considered as a first-line drug therapy for attention-deficit hyperactivity disorder. (Reference: (FDAMB) FDA Medical Bulletin, , p.6, Mar 1997) **WHO Comment : Pemoline was introduced in 1975 for the treatment of attention-deficit disorder. Because of its central stimulating effects it has also been used in weight control in combination with anorectic agents, laxatives.**

Product Name **Pentazocine**

C.A.S. number **359-83-1**

Scientific and common names, and synonyms

(2R*,6R*,11R*)-1,2,3,4,5,6-HEXAHYDRO-6,11-DIMETHYL-3-(3-METHYL-2- BUTENYL)-2,6-METHANO-3-BENZAZOCIN-8-OL

2,6-METHANO-3-BENZAZOCIN-8-OL, 1,2,3,4,5,6-HEXAHYDRO-6,11-DIMETHYL-3-(3-METHYL-2-BUTENYL)-, (2ALPHA,6ALPHA-11R*)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT		Subjected to control at national level analogous to that provided by Schedule I of the 1961 Single Convention on Narcotic Drugs. **WHO Comment : Pentazocine, which has both agonist and weak opioid antagonist activity, was introduced in 1967 for the treatment of moderate and severe pain. The risk of drug dependence is lower with pentazocine than with morphine-like drugs and pentazocine has been controlled under Section III of the 1971 Convention on Psychotropic Substances since 1984. The risk of dependence is now widely acknowledged to exist in vulnerable individuals and at least one country has applied controls analogous to those of Schedule I of the 1961 Single Convention on Narcotic Drugs.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Pentobarbital**

C.A.S. number **76-74-4**

Scientific and common names, and synonyms

5-ETHYL-5-(1-METHYLBUTYL)BARBITURIC ACID

PENTOBARBITONE

2,4,6(1H,3H,5H)-PYRIMIDINETRIONE, 5-ETHYL-5-(1-METHYLBUTYL)-

Legislative or regulative action

Legislative or regulation action

Product Name **Pentobarbital**

C.A.S. number **76-74-4**

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1985**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing pentobarbital. **WHO Comment : Pentobarbital is a short-acting barbiturate which is controlled under Schedule III of the 1971 Convention on Psychotropic Substances. See WHO comment for barbiturates.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Pentosan polysulfate sodium**

C.A.S. number **116001-96-8**

Scientific and common names, and synonyms

SODIUM XYLANPOLYSULPHATE

SODIUM PENTOSAN POLYSULPHATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Aug 1994**	The Medicines Agency has withdrawn the product licences for injectable and tablet formulations of the antithrombotic agent, pentosane polysulfate sodium, citing its unfavourable risk/benefit profile, and particularly reports of thrombocytopenia associated with its use. (Reference: (FRAAMN) Notification, , , Aug 1994)

Product Name **Pexiganan**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Mar 2000**	The Food and Drug Administration has not approved marketing of the topical anti-infective agent pexiganan acetate on the grounds that efficacy has not been sufficiently demonstrated. (Reference: (USADAC) The US FDA's Anti-infective Drugs Advisory Committee, , , 04 Mar 2000)

Product Name **Phenacetin**

C.A.S. number **62-44-2**

Scientific and common names, and synonyms

ACETOPHENETIDIN

ACETOPHENETHIDINE

ACETAMIDE, N-(4-ETHOXYPHENOL)-

N-(4-ETHOXYPHENYL) ACETAMIDE

P-ACETOPHENETIDIDE

Legislative or regulative action

Legislative or regulation action

Product Name **Phenacetin**

C.A.S. number **62-44-2**

Country	Effective Date	Description of action taken Grounds for decision
FIN	**1965**	Prohibited due to the well-documented association between its long-term use and nephropathy.
CAN	**1973**	No manufacturer or importer shall sell a drug that contains phenacetin in combination with any salt or derivative of salicylic acid. (Reference: (CANGZ) Canada Gazette, , , June 1973)
ITA	**1973**	Withdrawn from the market due to suspected liver and kidney toxicity.
KWT	**1973**	Preparations containing phenacetin in combination with salicylates are no longer allowed. (Reference: (KTMD) Ministerial Decree, No.53, , 1973)
NZL	**1974**	Phenacetin was scheduled as a prescription drug in 1974, and was subsequently voluntarily withdrawn.
NGA	**Mar 1978**	Prohibited for import, distribution and sale based on a survey and review of the literature, and clinical and experimental data regarding toxic effects on the kidney and liver.
CYP	**1979**	The Drug Council decided to withdraw all products containing phenacetin and its derivatives having regard to the risk of liver damage in patients receiving this drug.
YEM	**1979**	Preparations containing phenacetin have been withdrawn.
PHL	**Jun 1980**	Phenacetin-containing drugs are no longer registrable due to the risk of developing methaemoglobinaemia.
GBR	**27 Mar 1980**	The Phenacetin Prohibition Order has prohibited the sale, supply or importation of any medicinal product containing phenacetin. Certain exemptions may apply. (Reference: (GBPHA) Phenacetin Prohibition Order, 1181, , 1979)
ISR	**1981**	The sale of analgesic combination products containing phenacetin has been prohibited. Paracetamol has been recommended as a substitute for phenacetin.
NOR	**1981**	Withdrawn from the market.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing phenacetin are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
BRA	**27 Nov 1981**	Products containing phenacetin are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.23, , Nov 1981)
ROM	**1982**	The Minister of Health has recommended the gradual reduction in the use of this product until it has been phased out of use completely.
TUR	**1982**	Preparations containing phenacetin in combination with analgesics and antipyretics have been withdrawn by the Ministry of Health with the recommendation that such formulations be changed, due to the risk of nephropathy from long-term use. Export of this product is prohibited.
BGD	**Mar 1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned, since the phenacetin component is toxic and liable to be abused. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
SWE	**Jul 1982**	Banned for use and/or sale for domestic purpose due to the risk of carcinogenicity and renal damage on long-term use and the presence of alternative therapy. Although Sweden has no legal powers to prohibit export, no export of this product occurs.
HKG	**1 Jul 1982**	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing phenacetin.

Legislative or regulation action

Product Name **Phenacetin**

C.A.S. number **62-44-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Aug 1982**	The Ministry of Health and Welfare banned phenacetin in proprietary drugs because of its propensity to cause renal damage and its carcinogenicity.
IND	**1983**	Prohibited for manufacture, sale and import for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
NPL	**1983**	Preparations containing phenacetin have been banned from use.
THA	**Feb 1983**	Registration permit has been revoked for pharmaceutical preparations containing this ingredient.
RWA	**1 Oct 1983**	Products containing phenacetin have been banned following established evidence of adverse effects of these preparations.
USA	**4 Nov 1983**	Withdrawn from the market and prohibited for export by the Food and Drug Administration due to its high potential for abuse and its unfavourable benefit-to-risk ratio with excessive chronic use. Risks cited include kidney damage and the possibility of haemolytic anaemia and methaemoglobinaemia resulting from abuse. (Reference: (FEREAC) Federal Register, 48(194), 45466, 1983)
CHL	**1984**	Products containing phenacetin have been withdrawn from the market in view of the risk of renal damage and methaemoglobinaemia with use.
ETH	**1984**	Withdrawn from the market due to the association of long-term use and nephropathy.
GRC	**1984**	Withdrawn from the market.
DNK	**31 Dec 1984**	Products containing phenacetin have been withdrawn from the market due to their potential risks of carcinogenicity and nephrotoxicity. (Reference: (UGLAAD) Ugeskrift for Laeger, 3769, , Nov 1984)
PAN	**16 Sep 1985**	The Ministry of Health has banned the import and sale of pharmaceuticals containing phenacetin. (Reference: (PANMR) Ministry of Health Resolution, No.7-DG, , June 1985)
DEU	**1 Apr 1986**	Preparations containing phenacetin have been withdrawn from the market and will no longer be considered for registration.
MYS	**Nov 1986**	All products containing phenacetin have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.4, , Aug 1986)
OMN	**1 Jan 1987**	The Ministry of Health has prohibited the import and marketing of products containing phenacetin.
AUT	**1 Jan 1988**	The distribution and use of medicines containing phenacetin are prohibited. (Reference: (AUTGB) Bundesgesetzblatt für die Republik Oesterreich, No.284, , 1987)
BEL	**1 Jan 1988**	Preparations containing phenacetin have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and crossbones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
BHR		Preparations containing phenacetin have been withdrawn.
EGY		The Technical Committee for Drug Control has instructed manufacturers to reformulate products to exclude this substance due to its potential to cause cumulative kidney damage.
IRL		Products containing phenacetin have been withdrawn.
NLD		Products containing phenacetin have been banned.
SAU		Not approved, having regard to the risk of liver damage as well as nephropathy.

Product Name **Phenacetin**

C.A.S. number **62-44-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SUR		Registration of all pharmaceutical products containing phenacetin has been withdrawn. **WHO Comment : Phenacetin, an aniline derivative, was introduced into medicine as an antipyretic over a century ago. It subsequently gained recognition as an analgesic and was available in many proprietary analgesic preparations. However, in the 1940s its habitual use was first implicated as the cause of methaemoglobinaemia and chronic haemolysis. Since 1950 there have been many reports published indicating that abusive use is associated with cumulative renal damage. Evidence also exists to suggest that it may have a carcinogenic potential. The drug has been withdrawn in many countries but may remain available in others.** **(Reference: (WHODI) WHO Drug Information, 1, 5, 1980)**

Product Name **Phenazone**

C.A.S. number **60-80-0**

Scientific and common names, and synonyms

AZOPHENUM

ANTIPYRINE

1,2-DIHYDRO-1,5-DIMETHYL-2-PHENYL-3H-PYRAZOLE-3-ONE

2,3-DIMETHYL-1-PHENYL-3-PYRAZOLIN-5-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARE	**9 Jun 1981**	Pharmaceutical preparations containing phenazone are banned. (Reference: (UAEMD) Ministry of Health Decree, 694, , 1981)
MYS	**Nov 1986**	All products containing phenazone have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.4, , Nov 1986)
BHR		Preparations containing phenazone have been withdrawn. **WHO Comment : Phenazone is a pyrazolone derivative chemically related to aminophenazone. Some regulatory authorities have imposed restrictions on its use on these grounds. However, a recent international study showed no statistically-based evidence of an association with agranulocytosis or aplastic anaemia. Nor does it share with aminophenazone the propensity to produce potentially carcinogenic nitrosamines.**

Product Name **Phenazopyridine**

C.A.S. number **94-78-0**

Scientific and common names, and synonyms

2,6-PYRIDINEDIAMINE, 3-(PHENYLAZO)

2,6-DIAMINO-3-(PHENYLAZO)PYRIDINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1984**	Withdrawn from the market having regard to its unacceptable benefit to risk ratio (carcinogenic potential).

Product Name **Phenazopyridine**

C.A.S. number **94-78-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Phenazopyridine, an azo dye, was introduced in the 1950s as a urinary antiseptic. It was withdrawn in Greece in 1984 on grounds that it has a carcinogenic potential but it remains available in other countries, most frequently as a constituent of combination products.

Product Name **Phendimetrazine**

C.A.S. number **634-03-7**

Scientific and common names, and synonyms

MORPHOLINE, 3,4-DIMETHYL-2-PHENYL-, (2S-TRANS)-

PHENIMETHOXAZINE

(2S,3S)-3,4-DIMETHYL-2-PHENYLMORPHOLINE

(+)-3,4-DIMETHYL-2-PHENYLMORPHOLINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use. **WHO Comment : Phendimetrazine, a sympathomimetic amine, was introduced in 1961 for use as an anorexic agent. It retains a place in the treatment of obesity. However, since it has been subject to abuse and because dependence can occur, phendimetrazine is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Phenformin**

C.A.S. number **114-86-3**

Scientific and common names, and synonyms

IMIDODICARBONIMIDIC DIAMIDE, N-(2-PHENYLETHYL)-

PHENFORMIN HYDROCHLORIDE

1-PHENETHYLBIGUANIDE HCL

1-PHENETHYLBIGUANIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**1970**	Due to published evidence of occasional fatal cases of lactic acidosis from this substance, the Ministry of Health has withdrawn all products containing phenformin and used metformin as a replacement. Export of this product is prohibited.
CAN	**1977**	Voluntarily withdrawn from sale as a result of concern regarding lactic acidosis. Metformin remains available for use.
CHE	**1977**	Withdrawn following reports of occasional but sometimes fatal cases of lactic acidosis among diabetics receiving biguanides. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 181, 1978)
NOR	**1977**	Phenformin was withdrawn following a review of the published evidence relating to the development of lactic acidosis in diabetics treated with this drug. In the view of the

Product Name **Phenformin**

C.A.S. number **114-86-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		specialities board adequate alternative treatment is available that does not involve a comparable risk.
NZL	**1977**	Voluntarily withdrawn from the market.
SGP	**Aug 1977**	Banned for importation.
BRA	**14 Dec 1977**	Combination products containing phenformin are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.30, , Dec 1977)
DNK	**1978**	Withdrawn following reports of occasional but sometimes fatal cases of lactic acidosis among diabetics receiving biguanides. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 181, 1978)
FIN	**1978**	Withdrawn from the market by the manufacturers since it has been shown to cause lactic acidosis among diabetics receiving biguanides.
ITA	**1978**	Warnings and contraindications have been added to currently marketed products with this ingredient. It has been recommended that dosages lower than 100 mg/day be followed due to the risk of lactic acidosis.
DEU	**Mar 1978**	Withdrawn from the market because of occurrence of lactic acidosis.
FRA	**31 May 1978**	Withdrawn following reports of occasional but sometimes fatal cases of lactic acidosis among diabetics receiving biguanides. (Reference: (UGLAAD) Ugeskrift for Laeger, 140, 181, 1978)
AUT	**Sep 1978**	In conformity with the decision taken in several other countries, and following reports of occasional lactic acidosis, all products containing phenformin and buformin have been withdrawn. Metformin remains available for limited indications.
SWE	**Oct 1978**	Withdrawn from domestic use due to several cases of lactic acidosis, some of which have been fatal. This product is no longer manufactured in Sweden. Although Sweden has no legal powers to prohibit export, no export of this product occurs.
THA	**Nov 1978**	Registration permit has been revoked for pharmaceutical preparations containing this ingredient.
USA	**15 Nov 1978**	Withdrawn from the market and prohibited for export by the Food and Drug Administration following reports of cases of lactic acidosis. Special arrangements have been made to allow doctors to obtain, on request, supplies of phenformin for the treatment of specific patients in whom the "benefits of the drug are considered to outweigh the risks.". (Reference: (FEREAC) Federal Register, 44(68), 20966, 1979)
CYP	**1979**	The Drug Council withdrew all products containing phenformin following a review of published literature relating to the development of fatal acidosis in diabetics treated with this drug.
ETH	**1979**	Withdrawn from the market following reports of fatal lactic acidosis.
IRL	**1979**	Phenformin and buformin were withdrawn from the market as a result of concern regarding lactic acidosis. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, 14, , 1979)
YEM	**1979**	Withdrawn following reports of fatal lactic acidosis.
KWT	**Jan 1980**	Prohibited for import.
GBR	**1982**	Withdrawn from the market by the manufacturer owing to evidence of lactic acidosis with its use.
HKG	**14 Oct 1985**	The Pharmacy and Poisons Committee no longer allows the registration, sale or distribution of products containing phenformin.

Product Name **Phenformin**

C.A.S. number **114-86-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IND		Currently available on the market. Precautionary information is required to be given with this drug.
MUS		The Committee on Safety of Drugs has issued a circular letter to all doctors informing them of contraindications to phenformin and the precautions to be observed when the drug is used.
NLD		Withdrawn from the market.
SAU		Prohibited following reports of lactic acidosis.
VEN		Subject to restricted use and/or sale.
		WHO Comment : Phenformin, a biguanide with oral hypoglycaemic activity, was introduced in 1957 for the management of diabetes mellitus. By 1970 its use had been associated with incidences of lactic acidosis and by 1976 clinical studies had conclusively demonstrated that the hazards of phenformin treatment outweighed the benefits. Preparations containing phenformin were withdrawn in several countries and their use restricted in others. Elsewhere, however, proprietary preparations containing this drug may remain available. The related biguanide, buformin, has been also associated with lactic acidosis and has been subjected to similar restrictions as phenformin, whereas there is some evidence that metformin is less liable to induce lactic acidosis. **(Reference: (WHODI) WHO Drug Information, 2, 4, 1977)**

Product Name **Phenicarbazide**

C.A.S. number **103-03-7**

Scientific and common names, and synonyms

1-PHENYLSEMICARBAZIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL		Having regard to the serious nature of the adverse effects, products containing phenicarbazide have been withdrawn.
		WHO Comment : Phenicarbazide, which has analgesic and antipyretic activity, was introduced in the 1970s. It has been withdrawn in at least one country on grounds of its adverse effect profile and it appears to have fallen into disuse in others.

Product Name **Phenmetrazine**

C.A.S. number **134-49-6**

Scientific and common names, and synonyms

MORPHOLINE, 3-METHYL-2-PHENYL

3-METHYL-2-PHENYLMORPHOLINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.

Product Name **Phenmetrazine**

C.A.S. number **134-49-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**10 May 1982**	Import and marketing of products containing phenmetrazine were prohibited. (Reference: (OMNCR) Circular, 11/82, , May 1982)
NGA	**1988**	All products containing phenmetrazine have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988) **WHO Comment : Phenmetrazine, a sympathomimetic amine, was introduced in 1956 for use as an anorexic agent. Although preparations remain available, the use of phenmetrazine is no longer indicated for the treatment of obesity. Moreover, since it has been subject to abuse, and because dependence can occur, it is now controlled under Schedule II of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS2) United Nations Convention on Psychotropic Substances (II), , , 1971)**

Product Name **Phenobarbital**

C.A.S. number **50-06-6**

Scientific and common names, and synonyms

5-ETHYL-5-PHENYLBARBITURIC ACID

PHENOBARBITONE

PHENEMALUM

2,4,6(1H,3H,5H)-PYRIMIDINETRIONE, 5-ETHYL-5-PHENYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1985**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing phenobarbital.
ARG	**Dec 1996**	The Administración Nacional de Medicamentos, Alimentos y Technologia Medica (ANMAT) has restricted the use of phenobarbital to special prescription control including a requirement for record-keeping. (Reference: (ARGBO) Boletín oficial, No.28.552, 6019/96, 27 Dec 1996)
MUS	**2001**	Based on the regulatory decision taken by the Agence Francaise de Securite des Produits de Sante on 21 February 2001 on phenobarbitone preparations used as mild sedatives, all phenobarbital preparations other than those used as anti-epileptic products are being phased out of the market in Mauritius. Further import permits have not been issued. (Reference: (MUSCW) Communication to WHO, , , 27 Aug 2002)
FRA	**Apr 2001**	Phenobarbital has been suspended due to reports of rare but severe cutaneous and mucosal reactions including Lyell Syndrome and Stevens-Johnson syndrome. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001) **WHO Comment : Phenobarbital is a long-acting barbiturate which is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. Phenobarbital is of value in the treatment of epilepsy and preparations for such use are included in the WHO Model List of Essential Drugs. See also WHO comment for barbiturates.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Phenol**

C.A.S. number **108-95-2**

Scientific and common names, and synonyms

HYDROXYBENZENE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM	**1983**	Domestic manufacturers and importers have been requested to eliminate this ingredient from their marketed products since studies worldwide have shown that its antiseptic benefits do not outweigh the risks associated with use.
LTH	**Dec 2000**	Phenol aerosol was not granted marketing authorization on the grounds that other safer antiseptics are now available. (Reference: (LTHCW) Communication to WHO, , , 24 Aug 2001) **WHO Comment : Phenol became widely used as an antiseptic following demonstration of its germicidal activity in 1867. It is an intensely corrosive substance and percutaneous absorption can produce serious systemic toxicity. It has been withdrawn from pharmaceutical preparations by at least one national regulatory authority. However, it is still used widely in concentrations of the order of 1.4% in proprietary preparations for the relief of soreness of the mouth and throat.**

Bibliographical references

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IPCS HEALTH AND SAFETY GUIDE, 88, , 1994

Product Name **Phenolphthalein**

C.A.S. number **77-09-8**

Scientific and common names, and synonyms

1(3H)-ISOBENZOFURANONE, 3,3-BIS(4-HYDROXYPHENYL)
2(3H)-ISOBENZOFURANONE, 3,3-BIS(4-HYDROXYPHENYL)-
3,3-BIS-(P-HYDROXYPHENYL)PHTHALIDE
3,3-BIS(4-HYDROXYPHENYL)-1(3H)-ISOBENZOFURANONE
3,3-BIS(4-HYDROPHENYL)-PHTHALIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1979**	Withdrawn from the market.
YEM	**1979**	All products containing phenolphthalein have been withdrawn.
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned due to evidence of insufficient therapeutic value. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
GRC	**1985**	Withdrawn from the market.
CAN	**30 Sep 1997**	After reviewing the benefits and risks associated with the use of phenolphthalein-containing laxatives, Health Canada has concluded that there is a risk that phenolphthalein may cause cancer in humans; therefore the authority to sell and distribute these products has been revoked. (Reference: (CANPR) Press Release, 1997-54, , 30 Sep 1997)
FRA	**Oct 1997**	Following the opinion of the CPMP that the availability of phenolphthalein- containing laxatives should be restricted in view of the potential carcinogenicity of phenolphthalein, the Agence du Médicament has decided to suspend the marketing authorization of products containing phenolphthalein.

Product Name **Phenolphthalein**

C.A.S. number **77-09-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (FRAAMC) Communiqué de Presse, , , 03 Oct 1997)
MAR	**Nov 1997**	The Direction du médicament et de la pharmacie has suspended marketing authorization for phenolphthalein. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
OMN	**Dec 1997**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of phenolphthalein in all laxative preparations, including candies or chewing gum, because of a potential risk of carcinogenicity. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)
@EC	**17 Dec 1997**	At a Pharmacovigilance Working Party meeting in September 1997, it was indicated that national competent authorities were either considering immediate suspension of phenolphthalein or were discussing with the relevant marketing authorization holders the withdrawal on a voluntary basis. If voluntary action was not agreed by marketing authorization holders, the national competent authorities concerned would consider suspension of the products. (Reference: (CPMPPP) Position paper on the genotoxic and carcinogenic potential of phenolphthalein, , , 17 Dec 1997)
OMN	**1998**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of phenolphthalein in all laxative preparations, including candies or chewing gum, because of a potential risk of carcinogenicity. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)
JPN	**27 Jan 1998**	Manufacturers have voluntarily withdrawn products containing phenolphthalein from the market. (Reference: (JPNPMB) Communication, , , 27 Jan 1998)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market laxative products containing phenolphthalein because of a potential risk of carcinogenicity. (Reference: (SAUCW) Notification, , , 20 June 1999)
BHR		Preparations containing phenolphthalein have been withdrawn.
SGP		The National Pharmaceutical Administration in the Ministry of Health has rescheduled phenolphthalein to a Prescription- Only-Medicine due to its genotoxic and carcinogenic potential. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)
		WHO Comment : Phenolphthalein has been widely used as a laxative since its cathartic activity was first described in 1902. Because it undergoes enterohepatic circulation it is eliminated slowly and it has been associated with adverse effects, notably skin reactions, potassium loss and atonia. This has led to the withdrawal of phenolphthalein from pharmaceutical preparations in several countries. Elsewhere, it remains available, often in over-the-counter preparations.

Product Name **Phenoxybenzamine**

C.A.S. number **59-96-1**

Scientific and common names, and synonyms

BENZENEMETHANAMINE, N-(2-CHLOROETHYL)-N-(1-METHYL-2-PHENOXYETHYL)

N-(2-CHLOROETHYL)-N-(1-METHYL-2-PHENOXYETHYL)BENZYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Phenoxybenzamine**

C.A.S. number **59-96-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUS	**Jul 1984**	The Australian Drug Evaluation Committee has recommended that phenoxybenzamine should be restricted to use in phaeochromocytoma and neurogenic retention of urine having regard to reported carcinogenicity and mutagenicity in animal studies. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, 114, , July 1984) **WHO Comment : Phenoxybenzamine, a long-acting alpha-adrenoreceptor antagonist, was introduced in 1953 and has been used in a variety of peripheral vascular disorders. In 1982 it was shown to have mutagenic activity and in 1985 it was found to be carcinogenic in the rat. Its approved use was subsequently restricted by several regulatory authorities and phenoxybenzamine is currently used to manage hypertensive episodes associated with phaeochromocytoma, as an adjunct to the short-term management of urinary retention due to neurogenic bladder, in the short-term treatment of benign prostatic hypertrophy in patients awaiting surgery, and in inoperable benign prostatic hypertrophy.**

Product Name **Phentermine**

C.A.S. number **122-09-8**

Scientific and common names, and synonyms

ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE

A,A-DIMETHYLPHENETHYLAMIN

BENZENEETHANAMINE, ALPHA,ALPHA-DIMETHYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jan 1981**	Phentermine-containing appetite suppressants have been withdrawn from the market. There is a lack of evidence of their value in long-term management of obesity, they have the potential for abuse and despite warnings they are frequently used over unacceptably prolonged periods.
ARE	**9 Jun 1981**	Pharmaceutical preparations containing phentermine are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
OMN	**11 Jan 1987**	Import and marketing of products containing phentermine were prohibited. (Reference: (OMNCR) Circular, 2/87, , Jan 1987)
GBR	**Apr 2000**	The Medicines Control Agency has banned the anorectic agent, phentermine on the basis of a European Commission decision stating that risks outweigh the benefits. (Ref: Communication to WHO, 30 August 2000 from the Medicines Control Agency, Department of Health, United Kingdom.) (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)
VEN		Phentermine is not approved for use and/or sale. **WHO Comment : Phentermine, a sympathomimetic amine, was introduced in 1959 for use as an anorexic agent. It retains a place in the treatment of obesity. However,**

Product Name **Phentermine**

C.A.S. number **122-09-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		since it has been subject to abuse and because dependence can occur, phentermine is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Phentolamine mesilate**

C.A.S. number **65-28-1**

Scientific and common names, and synonyms

PHENTOLAMINI MESILAS. 3-[N-(2-IMIDAZOLIN-2-YLMETHYL)-P-TOLUIDINO]PHENOL METHANESULPHONATE

PHENTOLAMINE METHANESULPHONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SGP		The National Pharmaceutical Administration in the Ministry of Health has not approved phentolamine mesylate, a drug used for the treatment of erectile dysfunction because of abnormal findings in rat carcinogenicity studies. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Phenylbutazone**

C.A.S. number **50-33-9**

Scientific and common names, and synonyms

BUTADIONE

3,5-PYRAZOLIDINEDIONE, 4-BUTYL-1,2-DIPHENYL-

4-BUTYL-1,2-DIPHENYL-3,5-PYRAZOLIDINEDIONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Indications are restricted to acute exacerbations of rheumatoid arthritis, ankylosing spondylitis and acute gout. Doctors are advised to prescribe these drugs only to adults and for periods of no longer than one week.
HUN	**1984**	Indications are restricted to ankylosing spondylitis and related diseases, acute gout attacks, acute exacerbations of rheumatoid arthritis and inflamed osteoarthritis. The duration of treatment is restricted to 14 days. (Reference: (BNIPH) Bulletin of the National Institute of Pharmacy, 34(6), 186, 1984)
IRL	**1984**	Approved indications for phenylbutazone and oxyphenbutazone revised: now restricted to cases of acute gout, ankylosing spondylitis, and chronic arthritis in patients unsuited to alternative therapy. Treatment of acute gout should not extend beyond 7-10 days and the lowest effective dose should be used. Treated arthritic patients should remain under regular surveillance and specialist supervision. Doctors are advised not to prescribe these drugs for children or pregnant women and to reduce the dose in elderly patients. Certain contraindications include previous or existing gastrointestinal disease, blood dyscrasias, hepatic or renal dysfunction, cardiac or pulmonary insufficiency, thyroid or salivary gland disorders or hypersensitivity. Combination products with other active ingredients have been withdrawn from use.

Product Name **Phenylbutazone**

C.A.S. number **50-33-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUN	**1984**	Injectable and topical preparations are prohibited. Tablets and suppositories are restricted to the treatment of ankylosing spondylitis and gout.
ARE	**19 Mar 1984**	Pharmaceutical preparations containing phenylbutazone are banned. (Reference: (UAEMD) Ministry of Health Decree, No.480, , 1984)
KWT	**Apr 1984**	Approved indications have been restricted to ankylosing spondylitis and acute gout and phenylbutazone should not be dispensed without a prescription. (Reference: (KTMD) Ministerial Decree, No.160, , 1984)
BRB	**25 Jun 1984**	Indications for phenylbutazone are limited to active ankylosing spondylitis, gout and pseudo-gout. It may also be used to treat acute exacerbations of rheumatoid arthritis and osteoarthritis and acute non-articular rheumatoid disease unresponsive to other non-steroidal antiinflammatory drugs.
ZWE	**Jul 1984**	Approved indications are restricted to ankylosing spondylitis. The duration of therapy should not exceed seven days. Labelling must contain a warning that adverse haematological effects may occur and that the blood count should be monitored before and during therapy. Topical products have been withdrawn. (Reference: (ZWDCC) Drugs Control Council, News Bulletin, , , Aug 1985)
ESP	**15 Jul 1984**	Approved indications have been restricted to inflammatory arthritic conditions, active ankylosing spondylitis and other inflammatory spondylopathies, acute attacks of gout and pseudo-gout, acute exacerbations of rheumatoid arthritis and other polyarthritic conditions. Parenteral preparations have been restricted to hospital use only.
COG	**1 Aug 1984**	Indications for phenylbutazone have been restricted to ankylosing spondylitis.
JOR	**1 Oct 1984**	Registration of all pharmaceutical products containing phenylbutazone has been withdrawn. (Reference: (JORMH) Ministry of Health Resolution, 4/2/1559, , Apr 1984)
BGD	**Nov 1984**	Use has been banned due to reported severe adverse reactions.
DEU	**1985**	Indications have been restricted to exacerbations of rheumatism and acute gout. Duration of oral treatment should not exceed one week. Parenteral preparations are indicated only for initiating therapy. A single injection only is recommended because local tissue damage may occur. Preparations are contraindicated in children under 14 years of age.
ETH	**1985**	Banned from the market due to reported serious adverse reactions.
GRC	**1985**	Indications have been restricted.
NLD	**1 Jan 1985**	Parenteral dosage forms and combination products containing phenylbutazone have been withdrawn from the market. The approved indications have been restricted to the treatment of spondyloarthritis unresponsive to other non-steroidal antiinflammatory agents. (Reference: (NETJAN) Nederlands Tijdschrift voor Geneeskunde, 128(50), , 1984)
SWE	**Feb 1985**	Indications for use have been restricted to acute gout and morbus Bechterew on the grounds of serious blood dyscrasias associated with its use.
NZL	**Apr 1985**	Indications for phenylbutazone have been restricted.
CHL	**4 Jun 1985**	Preparations containing phenylbutazone have been prohibited. (Reference: (CHLRS) Resolution of the Minister of Health, No.2660, , Apr 1984)
OMN	**22 Sep 1985**	Phenylbutazone is available in small quantities only in government hospitals for the treatment of patients unresponsive to other therapy. The Ministry of Health has prohibited import of preparations containing phenylbutazone except combinations containing phenylbutazone and clofexamide (clofezone) intended for topical use.

Product Name **Phenylbutazone**

C.A.S. number **50-33-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (OMNMH) Ministry of Health, 3, , 1985)
HKG	**2 Oct 1985**	The use of preparations containing phenylbutazone has been restricted.
PAN	**1 Jan 1986**	The Ministry of Health has suspended the import and sale of pharmaceuticals containing phenylbutazone with the exception of parenteral preparations for which use will be confined to hospitals. (Reference: (PANMR) Ministry of Health Resolution, No.9/III-DG, ,)
TUR	**12 Mar 1986**	Production and sale of preparations containing phenylbutazone have been banned with the exception of topical preparations.
MYS	**Jan 1987**	All products containing phenylbutazone have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.6, , Oct 1986)
BEL	**1 Jan 1988**	Preparations containing phenylbutazone have been placed in List IV of the 'Arr^t, du R,gent' of 2 June 1946 and as such can be administered only on prescription. They must be kept in a poisons cabinet and carry the skull and crossbones label. (Reference: (BELAR) Arrêté Royal, , , June 1987)
GHA	**1 Sep 1989**	Products containing phenylbutazone, its salts or derivatives have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
LKA	**1 Jan 1992**	The Ministry of Health withdrew from sale pharmaceutical products containing phenylbutazone. This action was based on the potential of these products to induce suppression of the bone marrow. (Reference: (LKADIB) Drug Information Bulletin, University of Peradeniya and Ministry of Health, 4(1), , 1992)
ARM		The Drug and Medical Technology Agency has suspended the marketing authorization of phenylbutazone for oral, parenteral and topical use because of its toxicity. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
AUS		Indications are restricted to seronegative spondyloarthropathies, acute gout and rheumatoid arthritis not responding to other non-steroidal anti-inflammatory drugs.
AUT		Indications are restricted to exacerbations of gout and other arthritic conditions. Treatment should not exceed seven days and doctors are advised not to prescribe this drug to children under 14 years of age or elderly patients. (Reference: (WIMAM) Wichtige Mitteilung ueber Arzneimittel, (1), , 1984)
BHR		Preparations containing phenylbutazone have been withdrawn.
CYP		All combination products withdrawn from the market due to the potential to cause serious adverse reactions. The indications for monocomponent products have been restricted to ankylosing spondylitis.
GBR		Approved indications are restricted to ankylosing spondylitis. Use is restricted to hospitals.
ISR		The Pharmaceutical Administration of the Ministry of Health has notified the World Health Organization of its intention to withdraw from use all preparations containing oxyphenbutazone and to restrict the approved indication for preparations containing phenylbutazone to ankylosing spondylitis.
ITA		Indications have been restricted to the acute phase of ankylosing spondylitis, acute gout and the acute phase of pelvispondylitis and psoriatic polyarthritis. Use should only be considered when alternative treatment is ineffective or inappropriate. No course of treatment should exceed seven to ten days.
PHL		Due to its risk of toxicity, phenylbutazone is recommended for use only when other agents fail.

Product Name **Phenylbutazone**

C.A.S. number **50-33-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Phenylbutazone, a pyrazolone derivative with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1949 for the treatment of rheumatic disorders. Its use was subsequently associated with serious and sometimes fatal adverse reactions, notably cases of aplastic anaemia and agranulocytosis. Many national drug regulatory authorities consider that more recently introduced drugs offer a safer alternative for most, if not all, patients requiring anti-inflammatory agents. Phenylbutazone has thus been either withdrawn at the national level or retained with rigorously restricted indications for patients unresponsive to other therapy. These restrictions also apply, in general, to combination products containing phenylbutazone.

Product Name **Phenylephrine**

C.A.S. number **59-42-7**

Scientific and common names, and synonyms

BENZENEMETHANOL, 3-HYDROXY-ALPHA-((METHYLAMINO)METHYL)

(-)-M-HYDROXY-ALPHA-((METHYLAMINO)METHYL)BENZYL ALCOHOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Jun 1987**	The Department of Health and Social Security has refused to extend the product licence for eyedrops containing phenylephrine having regard to the possibility that use in the eye may result in delayed healing, reactive hyperaemia and the precipitation of closed angle glaucoma.

Product Name **Phenylpropanolamine**

C.A.S. number **14838-15-4**

Scientific and common names, and synonyms

BENEZENEMETHANOL, ALPHA-(1-AMINOETHYL)-,(R*,S*)-, (+/-)

DL-ERYTHRO-2-AMINO-1-PHENYL-1-PROPANOL

(+/-)-NOREPHEDRINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Nov 1985**	The Committee on the Review of Medicines has recommended that preparations containing phenylpropanolamine for treatment of cough and cold (other than nasal sprays and drops) should be subjected to prescription control if the recommended dosage exceeds, for slow-release forms, 50 mg (single dose), 100 mg (daily dose); or for immediate release dosage forms, 25 mg (single dose), 100 mg (daily dose). Slow-release preparations are contraindicated in children and all formulations are contraindicated in hypertensive patients and those currently receiving (or within two weeks of stopping) therapy with monoamine oxidase inhibitors. (Reference: (GBMIL) Medicines Act Information Letter, 45, , Nov 1985)
HKG	**Nov 1985**	The Pharmacy and Poisons Committee has issued guidelines restricting the use of phenylpropanolomine.
DEU	**1987**	Approval of products containing phenylpropanolamine as appetite suppressants and for the symptomatic treatment of the common cold was withdrawn, because of their

Product Name **Phenylpropanolamine**

C.A.S. number **14838-15-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		association with hypertensive episodes in susceptible individuals, particularly when taken together with coffee, alcohol, antihistamines or neuroleptics. (Reference: (BGHBL) Bundesgesundheitsblatt, 30(5), 187, 1987)
BRA	**Nov 2000**	The National Health Surveillance Agency stopped the sale of all products containing phenylpropanolamine due to the potential of these products to induce several adverse reactions including cerebral haemorrhage. (Reference: (BRARES) Resolucao n., 96/ANVISA, , 10 Nov 2000)
LTH	**Nov 2000**	The classification status of all medicinal products containing phenylpropanolamine was changed from over-the-counter (OTC) to prescription-medicines-only (PMO). Restrictions in dosage (not to exceed 100 mg daily dose) and contraindications (not to be used in patients with arterial hypertension, atherosclerosis of cerebral arteries and in patients on concurrent anticoagulant therapy) and dosage adjustment in children were recommended. Usage in children below 12 years of age was banned. (Reference: (LTHPHB) LSMCA bulletin "Pharmacon", No. 24, 2000, , 17 Aug 2001) (Reference: (LTHMCA) Order of State Medicines Control Agency, order no. 136, , 16 Nov 2000)
MYS	**Nov 2000**	The Ministry of Health suspended the registration of all medicines containing phenylpropanolamine (PPA) following a US report of increased risk of haemorrhagic stroke in people taking medicines containing PPA. (Reference: (MYSCW) Communication to WHO, , , 05 Oct 2001)
SGP	**Nov 2000**	Manufacturers were asked to withdraw all products containing phenylpropanolamine (PPA) from the market following reports of increased risk of haemorrhagic stroke. Manufacturers have been advised to re-formulate their products without PPA. (Reference: (SGPCW) Communication to WHO, , , 19 Sep 2001)
USA	**Nov 2000**	All phenylpropanolamine (PPA) containing products were withdrawn due to risk of haemorrhagic stroke after a research study by scientists at Yale University showed a significant increase in the risk for haemorrhagic strokes among women who had taken PPA as an appetite suppressant. (Reference: (USAPHA) Public Health Advisory, , , 06 Nov 2000)
GBR	**Dec 2000**	The Committee on Safety of Medicines (CSM) concluded that the evidence of a like between haemorrhagic stroke and phenylpropanolamine (PPA) is weak and recommend that the Medicines Control Agency should work closely with manufacturers to improve existing product information on the packs and patient information leaflets for PPA containing products with more prominent warnings. (Reference: (GBRSMU) Safety Message Update, , ,)
OMN	**Dec 2000**	The registration of all products containing phenylpropanolamine has been cancelled in Oman. (Reference: (OMNCR) Circular, 64/2000, , 02 Oct 2001)
CAN	**2001**	Health Canada has directed the removal of all phenylpropanolamine containing products from the Canadian market due to the risk of serious haemorrhagic strokes with phenylpropanolamine. (Reference: (CANWHC) Warnings/Advisories, , , May 2001)
IDN	**Apr 2001**	The National Agency fro Drug and Food Control (NADFC) in Indonesia has allowed the marketing of phenylpropanolamine containing products with restrictions on the maximum strength per unit dose and maximum daily dose (adult 15 mg/unit dose; 60 mg per day; children 7.5 mg/unit dose; 30 mg per day). (Reference: (IDNCW) Communication to WHO, , , 13 Sep 2001)
CUB	**May 2001**	The Centre for State Control of Drug Quality (CECMED) issued a resolution banning the use of phenylpropanolamine products in Cuba.

Product Name **Phenylpropanolamine**

C.A.S. number **14838-15-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (CUBCDQ) CECMED Resolution, No. 7/2001, , 16 May 2001)
CHL	**Oct 2001**	The Public Health Institute of Chile has modified the labels of products containing phenylpropanolamine, warning against their use in children under the age of 12 years and advising patients to immediately report to their physicians all adverse reactions experienced with phenylpropanolamine products. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)
JPN	**15 Aug 2003**	The Ministry of Health, Labour and Welfare (MHLW) has asked manufacturers of products containing phenylpropanolamine (PPA) to include new warnings on cardiovascular risks. The move follows several reports of cerebral haemorrhage and other problems associated with the use of PPA containing products. (Reference: (JPNSWP) Scrip World Pharmaceutical News, No.2876, , 15 Aug 2003)
		WHO Comment : Phenylpropanolamine, a symopathomimetic amine, has been widely available in over-the-counter preparations since 1941. It is one of the most frequently used nasal decongestants and it is a common ingredient in preparations for weight reduction, although doubts have been raised about its usefulness in this indication. It is also used in stress incontinence. Its use has been associated with occasional excessive elevation of blood pressure, especially in hypersensitive individuals.

Product Name **Phthalylsulfathiazole**

C.A.S. number **85-73-4**

Scientific and common names, and synonyms

6'-(THIAZOLYLAMINOSULFAMOYL)PHTHALANILIC ACID

BENZOIC ACID, 2-(((4-((2-THIAZOLYLAMINO)SULFONYL)PHENYL)AMINO)-CARBONYL)-

4'-(2-THIAZOLYLSULFAMOYL)PHTHALANILIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned. It has been found to be of little or no therapeutic value, its side effects can be harmful, and it is subject to misuse. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
		WHO Comment : Phthalylsulfathiazole, a sulfonamide anti-infective agent, was introduced in 1946 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. Although phthalylsulfathiazole, which is poorly absorbed from the gastrointestinal tract, is no longer recommended in some countries, it continues to be used in others for the treatment of local intestinal infections, including bacterial dysentery, and for pre-operative bowel preparation.

Product Name **Pipamazine**

C.A.S. number **84-04-8**

Scientific and common names, and synonyms

10-(3-(4-CARBAMOYLPIPERIDINO)PROPYL)-2-CHLOROPHENOTHIAZINE

Legislative or regulative action

Legislative or regulation action

Product Name **Pipamazine**

C.A.S. number **84-04-8**

Country	Effective Date	Description of action taken Grounds for decision
USA	**Jul 1969**	Withdrawn from the market and prohibited for export by the Food and Drug Administration due to the lack of proof of efficacy and safety for use as an antinauseant and antiemetic for pregnant women. **WHO Comment : Pipamazine, which is pharmacologically similar to chlorpromazine, was introduced in 1959 for the treatment of nausea and vomiting. Although it was withdrawn in 1969 by the United States FDA on grounds of lack of proof of efficacy and safety, it remains available in some countries.**

Product Name **Pipenzolate**

C.A.S. number **13473-38-6**

Scientific and common names, and synonyms

1-ETHYL-3-HYDROXY-1-METHYLPIPERIDINIUM BENZILATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PAK	**Jun 1990**	Paediatric formulations of antidiarrhoeal products containing pipenzolate were banned. **WHO Comment : Pipenzolate, an anticholinergic agent, was introduced in 1960 for the treatment of spastic conditions of the gastro-intestinal tract. It has never been widely used for the treatment of diarrhoea, and WHO is not aware of any such preparations that remain available.**

Product Name **Piperazine**

C.A.S. number **110-85-0**

Scientific and common names, and synonyms

BUTADIONE

3,5-PYRAZOLIDINEDIONE, 4-BUTYL-1,2-DIPHENYL-4-BUTYL-1,2-DIPHENYYL-3,5,PYRAZOLIDINEDIONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**1977**	Products with anthelminthic indications have been withdrawn due to an unfavourable risk/benefit balance. Since 1975, warnings have been added to the labels concerning the possibility of neurotoxic effects with high dosages. In 1979, the label was revised to advise use on an empty stomach and for short periods of time with long intervals, in order to avoid interaction with nitrites.
SWE	**1983**	In the light of the carcinogenic and mutagenic potential of piperazine demonstrated in recent studies, discussions between the manufacturers and the Department of Drugs have led to the withdrawal of registration for this drug.
DNK	**2 Jul 1984**	Following recent evidence leading to the possibility that carcinogenic nitroso-derivatives may be generated in vivo, preparations containing piperazine have been placed under prescription control. (Reference: (UGLAAD) Ugeskrift for Laeger, 1949, , June 1984)
NLD	**1 Jan 1985**	The Board of Evaluation of Drugs has concluded that other anthelminthics have a more favourable risk-benefit ratio than piperazine, which may also give rise to potentially carcinogenic nitroso-derivatives. Manufacturers have been requested to withdraw products containing piperazine. (Reference: (NETJAN) Nederlands Tijdschrift voor Geneeskunde, 128(41), , 1984)

Product Name **Piperazine**

C.A.S. number **110-85-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	**1996**	The Drug Control Authority withdrew registration of products containing the anthelminthic, piperazine, because of reports of severe neurotoxicity and hypersensitivity reactions. Moreover, the mononitrasation of piperazine in the stomach can produce the potential carcinogen N-mononitrosopiperazine. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 10(1): 4, , 1996)
ARM	**Jul 2000**	The Drug and Medical Technology Agency withdrew registration of the anthelminthic product, piperazine because of reports of questionable safety with detection of neurotoxicity, hypersensitivity and nitrosamine-generating ability. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
THA		The use of pharmaceutical preparations containing piperazine is severely restricted. **WHO Comment : Piperazine was first used as a treatment for gout earlier this century and its anthelminthic activity was discovered in 1949. It is also considerably cheaper than other anthelminthic drugs. In some countries where ascariasis is not endemic and where piperazine was used predominantly for the treatment of pinworm it has been withdrawn from use on the grounds that other more effective and less toxic drugs are now available (see full list). In other such countries, however, piperazine remains available in over-the-counter preparations. Clinical dosages occasionally induce transient neurological signs and concern has been expressed that in some circumstances the drug may generate small amounts of nitrosamine in the stomach. However, it is widely considered that these trace doses are unlikely to give rise to a significant carcinogenic potential.** **(Reference: (WHODIB) WHO Drug Information Bulletin, 1: 5, , 1983)**

Product Name **Pipradrol**

C.A.S. number **467-80-7**

Scientific and common names, and synonyms

ALPHA,ALPHA-DIPHENYL-2-PIPERIDINEMETHANOL

1,1-DIPHENYL-1-(2-PIPERIDYL)-METHANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**6 Sep 1982**	Banned for production, import, export, sale and use.
DNK		Withdrawn from the market by the manufacturer.
VEN		Not approved for use and/or sale. **WHO Comment : Pipradrol, a central nervous system stimulant, was introduced in 1955 for use as an anorexic agent. Pipradrol is controlled under Schedule IV of the 1971 Convention on Psychotropic Substances.** **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Pirprofen**

C.A.S. number **31793-07-4**

Scientific and common names, and synonyms

BENZENEACETIC ACID,3-CHLORO-4-(2,5-DIHYDRO-1H-PYRROL-1-YL)-ALPHA-METHYL-

2-(3-CHLORO-4-(3-PYOLIN-1-YL)PHENYL) PROPIONIC ACID

Legislative or regulation action

Product Name **Pirprofen**

C.A.S. number **31793-07-4**

Scientific and common names, and synonyms

3-CHLORO-4-(3-PYRROLIN-1-YL) HYDRATROPIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**30 Sep 1990**	Products containing pirprofen have been voluntarily discontinued by the manufacturer. (Reference: (CGPR) Press release from Ciba-Geigy, , , 15 Mar 1990) **WHO Comment : Pirprofen, a nonsteroidal anti-inflammatory agent, was introduced in 1982 primarily for the treatment of rheumatic diseases, as well as for use in post-traumatic and post-operative inflammatory conditions, acute gout and dysmenorrhoea. Reports of serious adverse effects, in particular cases of liver toxicity, some of which were fatal, led the manufacturer, in 1985 and in 1989, to amend the approved product information of the drug, limiting duration of treatment and lowering the recommended doses. In the light of these successive restrictions, which have considerably reduced the field of application of pirprofen and in view of available alternatives, the manufacturer has decided to discontinue the drug worldwide.**

Product Name **Pituitary-chorionic gonadotropin (injectable)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Jul 1972**	Gonadotropins of animal origin have been withdrawn from use and prohibited for export by the Food and Drug Administration on grounds of safety and efficacy. In its decision the FDA cited the risk of eliciting antibodies to animal protein, leading to allergic reactions, and the availability of safer and more effective alternatives. (Reference: (FEREAC) Federal Register, 37(130), 13284, 1972) **WHO Comment : The World Health Organization has no information further to the above regarding preparations containing pituitary chorionic gonadotropin or to indicate that preparations are still commercially manufactured.**

Product Name **Placental tissue derived medicine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**23 Jul 1992**	The Directorate of Pharmacy has suspended the marketing authorization of certain medicinal products derived from human placental tissue: Placentafil, injectable and tipical formulations and Placenta Soca, ointment (Laboratoire gerda). This does not necessarily include other products made from placental tissue. (Reference: (FRAMHH) Ministry of Health and Humanitarian Action, , , 23 July 1992) **WHO Comment : Placental derived products, both topical and injectable, have been used to treat arthritis, eczema, acne vulgaris and numerous other ailments. In 1989 the European Community raised concerns regarding the risk of viral infection and it was this that stimulated restrictive regulatory action. Other placental products including some preparations of albumin remain on the market. Indeed, worldwide, placental tissue continues to be a prime source of albumin.**

Product Name **Podophyllum resin**

Scientific and common names, and synonyms

PODOPHYLLIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	1970	Withdrawn from the market owing to the risk of teratogenicity.
FRA	30 Mar 1979	Having regard to the presumed teratogenic risk, the Commission on Drug Monitoring of the Ministry of Health recommended that podophyllin be removed from all medicinal products intended for internal use.
EGY	1984	Preparations containing podophyllum will not be considered for registration, having regard to the potential risk of teratogenicity.
CUB		Restricted to hospital use for the treatment of cutaneous lesions only. Oral and parenteral preparations are banned.
SAU		Available medicinal products containing this drug are intended for topical use only.
		WHO Comment : Podophyllum resin, which is extracted from Indian podophyllum, is highly irritant to the skin and mucous membranes and its use in purgatives is now obsolescent. However, topical preparations remain available for the treatment of venereal and other warts and the drug is included in the WHO Model List of Essential Drugs for this purpose. Podophyllin extracts have been demonstrated to have a teratogenic potential which has led to their withdrawal in some countries and restriction of use in others. They are best avoided during pregnancy. **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Polidexide sulfate**

C.A.S. number **56227-39-5**

Scientific and common names, and synonyms

DEXTRAN 2-(DIETHYLAMINO)ETHYL 2-((2-(DIETHYLAMINO)ETHYL)DIETHYLAMMONIO) ETHYL ETHER SULFATE, EPICHLOROHYDRIN CROSSLINKED

DEAE-SEPHADEX

POLY(2-(DIETHYLAMINO)ETHYL)POLYGLYCERYLENE)DEXTRAN

PDX-CHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	1977	This substance, except for the intravenous preparation, has been withdrawn by the company following evidence of oculo-mucocutaneous syndrome.
		WHO Comment : Polidexide sulfate, an anion-exchange resin, was formerly used in the treatment of hypercholesterolaemia. The drug, which was marketed only in the United Kingdom, was withdrawn in the mid-1970s on the basis of new safety findings.

Product Name **Polyoxyethylated castor oil**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Polyoxyethylated castor oil**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**1984**	The Italian Ministry of Health has suspended the marketing authorization of two anaesthetic preparations containing polyoxyethylated castor oil.
@WD	**Jun 1984**	The manufacturer of an anaesthetic agent containing polyoxyethylated castor oil has withdrawn the product worldwide.
EGY	**26 Mar 1985**	Preparations containing polyoxyethylated castor oil will no longer be approved for registration and the substance should be withdrawn from all pharmaceutical and cosmetic products. **WHO Comment : Polyoxyethylated castor oil is a non-ionic emulsifying agent produced by reacting ethylene oxide with castor oil. It has been used for over 20 years to prepare stable injectable liquid preparations of drugs with low aqueous solubility. By the mid-1970s, its use had been associated with cases of severe anaphylactoid reactions and haematological changes including hyperlipidaemia, altered blood viscosity and erythrocyte aggregation. For the formulation of certain lipophilic substances such as ciclosporin there is currently no viable alternative to this pharmaceutical aid. It continues to be approved in some countries whereas its use is restricted or banned in others. One manufacturer has withdrawn worldwide all products containing polyoxyethylated castor oil.**

Product Name **Polyvidone**

C.A.S. number **9003-39-8**

Scientific and common names, and synonyms

PVP

POVIDONE

POLYVINYLPYRROLIDONE

1-VINYL-2-PYRROLIDINONE POLYMER

2-PYRROLIDINONE, 1-ETHENYL-, HOMOPOLYMER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1983**	All injectable products containing PVP with a molecular weight of approximately 12000 have been reformulated or withdrawn. PVP content of remaining products and an appropriate warning regarding their risks must be widely displayed on the labelling. PVPs have been widely used as stabilisers in injectable products, but the Federal Health Office considers that safer substances are now available for this purpose. It is now recognized that PVPs of high molecular weight are sequestered in the body. Their accumulation may cause pain at the site of injection and granulomatous lesions have developed that have been mistaken for neoplastic tumors.
PAK	**1988**	Plasma expanders containing polyvidone were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
EGY		Registration of injectable preparations containing polyvidone with a molecular weight greater than 12000 are not approved because such preparations can cause painful granulomatous lesions at the site of administration. Currently registered products were reformulated to exclude this product. **WHO Comment : Polyvidone, a polymer of vinylpyrrolidinone, is an excipient used as a suspending and dispersing agent. Injectable preparations containing polymers with a molecular weight in the order of 12,000 have caused painful local**

Product Name **Polyvidone**

C.A.S. number **9003-39-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		granulomatous lesions. This has led to the withdrawal of polyvidone from such preparations in some countries. Polyvidone was formerly also used as a plasma expander but, because it was sequestered within the liver and spleen, this use has been discontinued. However, it remains widely used as a vehicle for ophthalmic preparations, and as the major component of artificial tears.

Product Name **Potassium canrenoate**

C.A.S. number **2181-04-6**

Scientific and common names, and synonyms

ALDADIENE POTASSIUM

PREGNA-4,6-DIENE-21-CARBOXYLIC ACID, 17-HYDROXY-3-OXO, POTASSIUM SALT (17ALPHA)-

POTASSIUM 17-HYDROXY-3-OXO-17ALPHA-PREGNA-4,6-DIENE-21-CARBOXYLATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Sep 1986**	The indications for preparations containing potassium canrenoate are restricted having regard to the possible carcinogenic risk associated with long-term use. All combination products containing potassium canrenoate have been withdrawn. (Reference: (DEUAB) Deutsches Aertzteblatt, 83, , 1986) **WHO Comment : Potassium canrenoate, which has no intrinsic aldosterone antagonist activity, owes its therapeutic effect to the enzymatic interconversion in the body to canrenone. Evidence that long-term administration of high doses are tumorigenic in the rat has recently led to restriction of its use by some national regulatory authorities. See also WHO comments for canrenone and spironolactone.**

Product Name **Potassium chloride**

C.A.S. number **7447-40-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**1982**	Having regard to their association with ulceration of the gastrointestinal tract, fast-acting tablet formulations of potassium salts, including potassium chloride, are prohibited. Sustained-release tablets, tablets intended to be dissolved and liquid formulations remain available.
FRA	**31 Mar 1989**	Fast-acting tablets containing potassium chloride have been withdrawn, in the light of evidence that rapid release of potassium can induce intestinal perforation. (Reference: (FRARP) La Revue Prescrire, 9(82), 59, 1989) **WHO Comment : Potassium chloride has been used for many years to correct potassium deficiency. The use of fast-acting tablets has been associated with lesions of the gastro-intestinal mucosa, which have led to their general withdrawal.**

Product Name **Potassium nitrate**

C.A.S. number **7757-79-1**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Potassium nitrate**

C.A.S. number **7757-79-1**

Scientific and common names, and synonyms

NITRE

SALTPETRE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jan 1981**	Having regard to their obsolescence in clinical medicine and the potential carcinogenic risk attached to excessive use of nitrates, medicinal preparations of potassium nitrate were withdrawn from the market.
EGY	**Mar 1984**	No registration licence is to be granted for oral pharmaceutical preparations containing potassium nitrate to avoid any carcinogenic risk resulting from excessive use of nitrates.
VEN		Not approved for use and/or sale. **WHO Comment : Potassium nitrate was formerly used as a diuretic. Its use for this purpose is now considered obsolete but it is still available in at least one country for the correction of potassium deficiency. It is aslo widely permitted at concentrations of the order of 5% in proprietary toothpastes. In some countries the drug has been banned due to a potential carcinogenic risk arising from the excessive use of nitrates and their transformation to nitrosamines.**

Product Name **Practolol**

C.A.S. number **6673-35-4**

Scientific and common names, and synonyms

ACETAMIDE, N-(4-(2-HYDROXY-3-((1-METHYLETHYL)AMINO)PROPOXY)PHENYL)-

4'-(2-HYDROXY-3-(ISOPROPYLAMINO)-PROPOXY)ACETANILIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FIN	**1975**	Restricted for use only in cases of cardiac dysrhythmias due to the oculo-mucocutaneous syndrome. The only available preparation is a solution for intravenous use.
GRC	**1975**	Withdrawn from the market.
TUR	**1975**	Withdrawn from the market by the Ministry of Health due to published evidence of its harmful effects on hearing and on the eyes and skin. Export of this product is prohibited.
NZL	**Mar 1975**	Voluntarily withdrawn from the market.
SWE	**1 May 1975**	An intravenous preparation remains on the market for treatment of selected cardiac dysrhythmias.
DNK	**1 Jul 1975**	Registration has been cancelled for the product in tablet form. Administration by injection is allowed. (Reference: (UGLAAD) Ugeskrift for Laeger, 137, 1016, Apr 1975)
THA	**Dec 1975**	Products containing this ingredient have been banned.
SGP	**Jul 1976**	Banned for importation.
GBR	**1977**	This substance except for the intravenous preparation has been withdrawn from use by the company following evidence of oculo-mucocutaneous syndrome.
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)

Product Name **Practolol**

C.A.S. number **6673-35-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IND	**1983**	Prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
DEU	**25 Mar 1994**	The Federal Health Office has suspended the marketing authorization for pharmaceutical products containing orgotein on the grounds that unjustifiable risk outweighs the benefits. The Agency has received about 400 reports of adverse reactions - 90 of these repors describe serious hypersensitivity reactions, some of which were fatal. (Reference: (DEUPD) BGA Pressedienst, 19/1994, , 30 Mar 1994)
NOR	**1995**	Preparations for oral use were withdrawn from the market in 1975. Preparations for parenteral use have been withdrawn from the market.
VEN		Banned due to undesirable effects.
		WHO Comment : Practolol, a beta-adrenoreceptor antagonist, was introduced in 1970 for the treatment of angina and cardiac dysrhythmias. By 1974 long-term use had been associated with serious delayed idiosyncratic reactions (oculo-mucocutaneous syndrome) and this led to the withdrawal of oral preparations by the major manufacturer on a worldwide basis. There is no evidence to suggest that other beta-adrenoreceptor antagonist are associated with this risk. Intravenous preparations of practolol remain available in many countries for the emergency treatment of selected cardiac dysrhythmias.

Product Name **Prasterone**

C.A.S. number **53-43-0**

Scientific and common names, and synonyms

DHEA

DEHYDROEPIANDROSTERONE

DEHYDROANDROSTERONE

3BETA-HYDROXYANDROST-5-EN-17-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1985**	The Food and Drug Administration has withdrawn products containing prasterone on grounds of lack of information on efficacy and safety of long-term use. These products, which were available without prescription, were promoted for weight reduction, enhanced sexual function and extension of life. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, , , Apr 1985)
		WHO Comment : The World Health Organization has no information further to the above regarding preparations containing prasterone or to indicate that such preparations remain available.

Product Name **Prenylamine**

C.A.S. number **390-64-7**

Scientific and common names, and synonyms

BENZENEPROPANAMINE, N-(1-METHYL-2-PHENYLETHYL)-GAMMA-PHENYL-

N-(3,3-DIPHENYLPROPYL)-ALPHA-METHYLPHENETHYLAMINE

Legislative or regulation action

Product Name **Prenylamine**

C.A.S. number **390-64-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**31 Mar 1989**	Following reports of polymorphic ventricular tachycardia that led to withdrawal of prenylamine in the United Kingdom and the Federal Republic of Germany, the manufacturer has decided to withdraw the product from the market worldwide from 31 March 1989. **WHO Comment : Prenylamine is a calcium-channel blocking agent which was introduced in 1960. It has been widely used for the prophylaxis of angina pectoris and long-term treatment of coronary heart disease. Concern about its propensity to induce dangerous cardiac dysrhythmias led the company to withdraw it from the market.**

Product Name **Progabide**

C.A.S. number **62666-20-0**

Scientific and common names, and synonyms

BUTANAMIDE, 4-(((4-CHLOROPHENYL)(5-FLUORO-2-HYDROXYPHENYL)METHYLENE) AMINO)-

4-((ALPHA-(P-CHLOROPHENYL)-5-FLUOROSALICYLIDENE)AMINO)BUTYRAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**17 Mar 1986**	Following the development of icteric hepatitis in patients taking progabide, the major manufacturer advised doctors that its use should be restricted to patients unresponsive to other anticonvulsants. **WHO Comment : Progabide, an anticonvulsant, was introduced in France in 1985 for the treatment of epilepsy. Its use has occasionally been associated with clinically evident signs of icteric hepatitis developing within the first six months of treatment. These signs are generally reversible on withdrawal of the drug but continuation of treatment has been associated with three reported fatalities (two of which are doubtfully related to the drug). The manufacturer revised the data sheet in March 1986 advising that use of progabide should be reserved for patients unresponsive to other anticonvulsants.**

Product Name **Promethazine**

C.A.S. number **60-87-7**

Scientific and common names, and synonyms

10H-PHENOTHIAZINE-10-ETHANAMINE, N,N,?-TRIMETHYL-, MONOHYDROCHLORIDE

10H-PHENOTHIAZINE-10-ETHANAMINE, N,N,ALPHA-TRIMETHYL-.

10-[2-(DIMETHYLAMINO)PROPYL]-PHENOTHIAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Oct 1994**	The section on contraindications in the data sheet for the antihistamine, promethazine will now state: "Not for use in children under two years of age because safety of such use has not been established". (Reference: (GBRPHJ) The Pharmaceutical Journal, 253: 512, , 08 Oct 1994)
MAR	**May 2000**	The National Commission form Pharmacovigilance has restricted the administration of this product for children over 2 years of age.

Product Name **Promethazine**

C.A.S. number **60-87-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
		WHO Comment : Introduced in 1946, promethazine, a phenothiazine derivative has a variety of pharmacological properties. At present it is mainly used as an antihistamine and anti-motion-sickness drug. Promethazine is listed in the WHO Model List of Essential Drugs.

Product Name **Propafenone**

C.A.S. number **54063-53-5**

Scientific and common names, and synonyms

1-PROPANONE, 1-[2-[2-HYDROXY-3-(PROPYLAMINO)PROPOXY]PHENYL]-3-PHENYL-

2'-[HYDROXY-3-(PROPYLAMINO)PROPOXY]-3-PHENYLPROPIOPHENONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Sep 1990**	Products containing propafenone were restricted to the treatment of patients unsuitable for or unresponsive to other antiarrhythmic agents, on the grounds that they had been associated with cases of ventricular tachycardia and fibrillation, some of which were fatal. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, 104, , Sep 1990)
MYS	**Feb 1991**	The indications for products containing propafenone were restricted to the suppression of life-threatening ventricular arrhythmias, including sustained ventricular tachycardia, on the grounds that their potential to induce adverse effects must be assumed to be similar to that of encainide and flecainide. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 5(1):2, , 1991) **WHO Comment : Propafenone, a membrane-stabilizing antiarrhythmic agent, was introduced into medicine in the mid 1980s. Shortly afterwards, its use became associated with cases of severe cardiac arrhythmias, which led to notable restrictions in the drug's indications in at least two countries. See also WHO comment for flecainide.**

Product Name **Propionic acid**

C.A.S. number **79-09-4**

Scientific and common names, and synonyms

PROPANOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1987**	Having regard to proliferative lesions associated with administration of high dosages of propionic acid to experimental animals, the Federal Health Office restricted its use as a preservative and prohibited its use in bread. (Reference: (BGHBL) Bundesgesundheitsblatt, 30(10), 370, 1987)

Product Name **Propofol**

C.A.S. number **2078-54-8**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Propofol**

C.A.S. number **2078-54-8**

Scientific and common names, and synonyms

DISOPROFOL

2,6-DI-ISOPROPYLPHENOL

2,6-BIS(1-METHYLETHYL)PHENOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISR	**1992**	The Ministry of Health has not approved propofol for use in children. (Reference: (ISRMH) Ministry of Health, Israel, , , 29 June 1992)
NOR	**06 Apr 1992**	The use of propofol for long term sedation in children was not approved in Norway. The drug authorities in Norway strongly advised Norwesgian hospitals not to use propofol in children. (Reference: (NORMCA) Norwegian Medicines Control Authority, , , 06 Apr 1992)
GBR	**Jun 1992**	The Committee on Safety of Medicines reminded doctors that the use of propofol for sedation in children has not been evaluated and, in light of serious and sometimes fatal reactions, such use is not recommended. (Reference: (GBRCSM) Committee on Safety of Medicines, Current problems, 34, , June 1992)
LTH	**Mar 2001**	The State Medicines Control Agency of Lithuania (SMCA) has further extended the restrictions on the use of propofol. The agency has advised that propofol is not a recommended drug and should not be used for sedation in children below the age of 16 years. (Reference: (LTHPHB) LSMCA bulletin "Pharmacon", No. 5-6, 2001, , 17 Sep 2001) (Reference: (LTHMCA) Order of State Medicines Control Agency, order no. 43, , 23 Mar 2001) **WHO Comment : Propofol, a short acting injectable anaesthetic, was introduced in 1987. In April 1992, the Norwegian Medicines Control Board reported that prolonged use of propofol had been associated with two fatalities in children characterized by metabolic acidosis, liver enlargement, and cerebral oedema. The UK Committee on the Safety of Medicines has received 5 reports of deaths occurring in children who had received propofol while in intensive care.**

Product Name **Propylhexedrine**

C.A.S. number **3595-11-7**

Scientific and common names, and synonyms

CYCLOHEXANEETHANAMINE, N,ALPHA-DIMETHYL-(+/-)

(+/-)-N,ALPHA-DIMETHYLCYCLOHEXANEETHYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Jul 1981**	Administration of centrally active appetite inhibiting preparations containing propylhexedrine has been restricted to four weeks. A warning concerning the risk of dependence has been included in the package leaflet. **WHO Comment : Propylhexedrine, a sympathomimetic amine, has been widely available since 1949 in over-the-counter inhalants for nasal decongestion and in oral anorexic preparations. As dependence can occur and because abuse has been reported, propylhexedrine was subjected in 1986 to control under Schedule IV of the 1971 Convention on Psychotropic Substances.** **(Reference: (WHTAC2) 2nd Report of the WHO Expert Committee on Drug Dependence (IV), 729, , 1985)**

Product Name **Propylhexedrine**

C.A.S. number **3595-11-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Propyphenazone**

C.A.S. number **479-92-5**

Scientific and common names, and synonyms

ISOPROPYLANTIPYRINE

4-ISOPROPYL-2,3-DIMETHYL-1-PHENYL-3-PYRAZOLIN-5-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**Jan 1986**	Banned for production and sale having regard to severe adverse reactions.
ITA	**1989**	Having regard to the adverse effects associated with their long-term use, products containing propyphenazone may now be indicated only for the short-term treatment of severe pain or pyrexia. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, 13(2), 5, 1989)
ARE		Pharmaceutical preparations containing propyphenazone are banned.
BHR		Preparations containing propyphenazone have been withdrawn.
IRL		Following the occurrence of a case of fatal aplastic anaemia in a patient taking a propyphenazone-containing product for a prolonged period, the regulatory authority requested that the product be reformulated to exclude this ingredient. **WHO Comment : Propyphenazone, a pyrazolone derivative with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1951 for the treatment of rheumatic disorders. As it is structurally related to aminophenazone it has been associated with severe blood dyscrasias. However, it cannot be transformed into potentially carcinogenic nitrosamines and has therefore been widely used as a replacement drug for aminophenazone. In certain countries, products containing propyphenazone have now been restricted in their indications, whereas in others they are still available, sometimes as over-the-counter preparations. See also WHO comment for aminophenazone.**

Product Name **Proxibarbal**

C.A.S. number **2537-29-3**

Scientific and common names, and synonyms

5-ALLYL-5-(2-HYDROXYPROPYL)BARBITURIC ACID

PROXIBARBITAL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Apr 1998**	The Medicines Agency has withdrawn proxibarbal from the market after a benefit/risk evaluation showed that it may induce immunoallergic thrombocytopenia with potentially severe consequences. Proxibarbal was indicated for the treatment of minor signs of anxiety and hot flushes of the menopause and migraine. The company has already withdrawn proxibarbal in Italy, Spain, Portugal and Turkey. It is still marketed in Hungary and Poland. (Reference: (FRAAMC) Communiqué de Presse, , , 16 Apr 1998)

Product Name **Proxibarbal**

C.A.S. number **2537-29-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Apr 1998**	The manufacturer has voluntarily withdrawn proxibarbal in France after an evaluation by the Medicines Agency concluded that the risk-benefit ratio of proxibarbal is unfavourable given the identified risk of immunoallergic thrombopenia. (Reference: (FRAAMC) Communiqué de Presse, , , 16 Apr 1998)

Product Name **Pumactant**

Scientific and common names, and synonyms

ARTIFICIAL LUNG EXPANDING COMPOUND

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Apr 2000**	Pumactant was voluntarily withdrawn from the market by the licence holder following the results of a randomized clinical trial which showed unexpectedly higher mortality rate in neonates given pumactant. (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)

Product Name **Pyridoxine (Vitamin B6)**

C.A.S. number **65-23-6**

Scientific and common names, and synonyms

3,4-PYRIDINEDIMETHANOL, 5-HYDROXY-6-METHYL-, HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Jul 1997**	The Committee on the Safety of Medicines has advised that vitamin B6 in daily dose above 50mg should be available on prescription only, and that the general sales supply of vitamin B6 should be restricted to products providing a daily dose of 10mg or less. This action has been taken because of reports of peripheral neuropathy after daily doses of 50-mg. (Reference: (GBRPHJ) The Pharmaceutical Journal, 259 : 46, , 12 July 1997) **WHO Comment : Pyridoxine (vitamin B6) is listed in theWHO Model List of Essential Drugs.**

Product Name **Pyrithione zinc**

C.A.S. number **13463-41-7**

Scientific and common names, and synonyms

ZINC PYRIDINETHIONE, SKIN-CA

ZINC 2-PYRIDINETHIOL 1-OXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ARE	**1997**	The Ministry of Health has withdrawn the marketing approval for pyrithione zinc that is indicated for the treatment of dandruff or psoriasis. This follows concern raised by the

Product Name **Pyrithione zinc**

C.A.S. number **13463-41-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		FDA and Canada after closer analysis of the product revealed that it contained an (unlabelled) prescription strength corticosteroid (clobetasol). (Reference: (UAEDIB) Drug Information Bulletin, No. 3, p.2, 1997)
ARM	**Aug 1999**	The Drug and Medical Technology Agency has restricted the indications for pyrithione zinc to seborrhoeic dermatitis. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)

Product Name **Pyritinol**

C.A.S. number **1098-97-1**

Scientific and common names, and synonyms

PYRITHIOXINE

3,3'-(DITHIODIMETHYLENE)BIS(5-HYDROXY-6-METHYL-4-PYRIDINEMETHANOL)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned due to evidence of insufficient therapeutic value and risk of misuse. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982) **WHO Comment : Pyritinol, which is claimed to promote the uptake of glucose in the brain, is used in the treatment of cerebrovascular disorders. However, WHO is not aware of controlled experimental data to show that it has any therapeutic effect.**

Product Name **Pyrrolizidine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has decided to withdraw certain medicines containing pyrrolizidine alkaloids with a 1,2 unsaturated necine structure which occur in the cells of many plant species on the grounds that they are potentially carcinogenic and hepatotoxic. (Reference: (DEUPZ) Pharmazeutische Zeitung, 137(32):2400, , 1992)
BEL	**02 Sep 1992**	The Minister of Social Integration, Public Health and the Environment decided to prohibit the use of medicinal products derived from plants containing pyrrolizidine alkaloids having regard to the potential of these substances to induce veno-occlusive liver disease, pulmonary and central nervous system toxicit, as well as their potential carcinogenicity, mutagenicity and teratogenicity. (Reference: (BELMD) Ministerial Decree, , , 02 Sep 1992)
GBR	**20 Mar 1993**	Tablet and capsule formulations of comfrey containing pyrrolizidine alkaloids have been voluntarily withdrawn from the market following reports of liver toxicity. (Reference: (GBRPHJ) The Pharmaceutical Journal, 377, , 20 Mar 1993) **WHO Comment : Plants containing pyrrolizidine alkaloids have traditionally been made into teas in the Caribbean and South-East Asia and several of these active substances have been incorporated into medicines for use in treatment for a variety of illnesses. The decision to prohibit use of these products was based on their association with a variety of adverse effects and on their hepatotoxic and**

Product Name **Pyrrolizidine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		carcinogenic potential as seen in both laboratory animals and in communities that commonly use plants containing these compounds to prepare teas and other beverages.

Product Name **Quinine sulfate**

C.A.S. number **804-63-7**

Scientific and common names, and synonyms

CINCHONAN-9-OL, 6'-METHOXY-, (8?, 9R)-, SULFATE (2:1) (SALT)

CHININI SULFAS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**22 Aug 1994**	After reviewing the available information concerning over-the-counter drug products for the treatment and/or prevention of nocturnal leg muscle cramps, the Food and Drug Administration has concluded that the risk associated with use of quinine sulfate, in the absence of evidence of its effectiveness, outweighs any potential benefit in treating and/or preventing this benign, self-limiting condition. Moreover, in doses used to treat or prevent this condition, quinine sulfate has caused adverse events such as transient visual and auditory disturbances, dizziness, fever, nausea, vomiting and diarrhoea. Quinine sulfate has been reported to cause unpredictable serious and life-threatening hypersensitivity reactions requiring medical intervention and hospitalization, including fatalities. (Reference: (FEREAC) Federal Register, 59(161) , p. 43234, 1994)
USA	**20 Mar 1998**	The Food and Drug Administration has issued a final rule revoking approval for over-the-counter sale of products containing quinine for the treatment and/or prevention of malaria because the treatment of malaria requires medical supervision. Additionally, the agency is concerned about the possible misuse of quinine for the treatment or prevention of night-time leg muscle cramps, an indication that has been revoked (see other entry). (Reference: (FEREAC) Federal Register, 63(54) , p. 13526, 1998) **WHO Comment : Quinine is an important drug in the treatment of multi- drug-resistant forms of malaria. Its use in nocturnal leg muscle cramps, a benign and self-limiting condition, is connected with unjustified risks. Quinine is listed in the WHO Model List of Essential Drugs for treatment of malaria.**

Product Name **Remifentanil**

C.A.S. number **132875-61-7**

Scientific and common names, and synonyms

1-PIPERIDINEPROPANOIC ACID, 4-(METHOXYCARBONYL)-4-[(1-OXOPROPYL)PHENYLAMINO]-, METHYL ESTER,MONOHYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Nov 1996**	The Drug Enforcement Administration has rescheduled the narcotic analgesic, remifentanil and its salts, into Schedule II of the Controlled Substances Act, thus subjecting it to the corresponding regulatory controls and criminal sanctions governing its manufacture, distribution, dispensing, importation and exportation. (Reference: (FEREAC) Federal Register, 61(222) , p. 58471, 1996)

Product Name **Remifentanil**

C.A.S. number **132875-61-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Remifentanil is defined as an opioid narcotic with an addiction-forming and addiction-sustaining liability similar to morphine.

Product Name **Remoxipride**

C.A.S. number **117591-79-4**

Scientific and common names, and synonyms

BENZAMIDE, 3-BROMO-N-[(1-ETHYL-2-PYRROLIDINYL)METHYL]-2,6-DIMETHOXY-, (S)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**14 Mar 1994**	The manufacturer of the antipsychotic dopamine antagonist, remoxipride, has decided to withdraw the product licence worldwide following concern about an association with its use and aplastic anaemia. It will, however, remain available on a compassionate basis for named patients. (Reference: (ASTRA) Communication from Astra, , , 14 Mar 1994)

Product Name **Retinol**

C.A.S. number **68-26-8**

Scientific and common names, and synonyms

AXEROPHTHOCUM

VITAMIN A

3,7-DIMETHYL-9-(2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-YL)-2,4,6,8-NONATETRAEN-1-OL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1 Apr 1989**	Oral dosage forms of products containing vitamin A (retinol) are required to bear the following warnings: 1) preparations bearing a maximum recommended daily dosage of more than 25000 IU: "Because of danger of congenital malformations, not allowed during pregnancy nor for women of childbearing age." 2) preparations bearing a maximum recommended daily dosage of 10000 IU to 25000 IU: "Contraindicated during pregnancy because of danger of congenital malformations." 3) preparations bearing a maximum recommended daily dosage of 10000 IU: "Pregnant women should not exeed the recommended daily dosage except on medical advice." (Reference: (DAZ) Deutsche Apotheker Zeitung, 128(41), 85, 1988)
AUS	**1996**	The Adverse Drug Reactions Advisory Committee has reminded prescribers of the need to advise patients who are pregnant or likely to become pregnant not to exceed the recommended daily allowance of vitamin A (retinol) from all sources because of the risk of birth defects. The label should also bear the following warning statement: " WARNING - Taking more than 25,000 IU a day during pregnancy may cause birth defects". (Reference: (AUSADR) Australian Adverse Drug Reactions Bulletin, 15(4):14, , 1996)
IRL	**May 1996**	Following the review of a study that concluded that high dietary intake of Vitamin A (retinol) appears to be teratogenic, the Irish Medicines Board requested marketing authorization holders to update product authorization documents for these products accordingly and stresses that women who are pregnant or likely to become pregnant should be aware of the potential risks associated with high doses of Vitamin A both from

Product Name **Retinol**

C.A.S. number **68-26-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		dietary and supplementary sources (more than 10,000 units per day). (Reference: (NEJOM) New England Journal of Medicine, 333:1369-73, , 1995) (Reference: (IRDDS) Drug Safety Newsletter, No. 2, , May 1996) **WHO Comment : Vitamin A, a fat-soluble vitamin, is used in the treatment and prevention of vitamin A deficiency resulting from inadequate dietary intake. It has been demonstrated to be teratogenic at high doses (more than 25,000 IU per day). Daily dosages of less than 10000 IU seem to be free of this risk. Retinol (vitamin A) is listed in the WHO Model List of Essential Drugs.**

Product Name **Rituximab**

C.A.S. number **174722-31-7**

Scientific and common names, and synonyms

IDEC-102

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Feb 1999**	The Medicines Control Agency has severely restricted the use of the monoclonal antibody used in the treatment of non- Hodgkin?s lymphoma. Treatment should now only be undertaken in a hospital environment under the close supervision of a specialist oncologist/haematologist who has access to full resuscitation facilities. This is because of a number of cases of serious infusion-related reactions reported worldwide including 8 with a fatal outcome. (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)

Product Name **Rubiae tinctorum radix**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**29 Apr 1992**	The Federal Health Office has decided to revoke the marketing authorization of all medicinal products containing derivatives of Rubiae tinctorum radix, including lucidin and other derivatives of anthraquinone. (Reference: (DEUFHO) Communication from Federal Health Office, , , 29 Apr 1992) **WHO Comment : Extracts of Rubiae tinctorum radix have traditionally been used as treatment for a variety of diseases. Regulatory action has been taken because insufficient evidence has been gathered about its efficacy. Lucidin (1,2-dihydroxyanthraquinone), a component of Rubia tinctorum, has been shown in animal experiments to induce both benign and malignant tumours in the gastric and intestinal mucosa. Lucidin is positive for the Ames test indicating possible genotoxicity.**

Product Name **Santonin**

C.A.S. number **481-06-1**

Legislative or regulative action

Legislative or regulation action

Product Name **Santonin**

C.A.S. number **481-06-1**

Country	Effective Date	Description of action taken Grounds for decision
SGP	**Oct 1978**	Importation prohibited. **WHO Comment : Santonin, a crystalline lactone obtained from flowerheads of species of Artemisia, was formerly used as an anthelminthic. Its use was associated with a range of adverse effects, mainly involving the sense organs and the central nervous system, some of which were fatal. It has been superseded by other less toxic and more effective anthelminthics.**

Product Name **Scopolamine**

C.A.S. number **51-34-3**

Scientific and common names, and synonyms

6BETA,7BETA-EPOXY-1ALPHAH,5ALPHAH-TROPAN-3ALPHA-OL(-)-TROPATE (ESTER)

BENZENEACETIC ACID, ALPHA-(HYDROXYMETHYL)-,9-METHYL-3-OXA-9-AZATRICYCLO[3.3.1.0.???]NON-7-YL ESTER,[7(S)-(1ALPHA,2BETA,4BETA,5ALPHA,7BETA]-

HYSOCINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1 Mar 1988**	Depot plasters containing scopolamine have been subjected to prescription control, on the grounds of adverse effects including visual disturbances, hallucinations and glaucoma. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 2, 8, 1988) **WHO Comment : Scopolamine, an alkaloid with anticholinergic activity extracted from solanaceous plants, was introduced into medicine in 1888. It is used as a mydriatic, as an anti-emetic for the control of motion sickness, and for premedication in general anaesthesia. Shortly after their introduction in the early 1980's, transdermal delivery systems containing scopolamine that were indicated for the prevention of motion sickness were associated with visual disorders (e.g. mydriasis, glaucoma) and hallucinations. The action taken in Norway is in accordance with the legislation in several other countries where these preparations have always been subjected to prescription control.**

Product Name **Secobabital**

C.A.S. number **76-73-3**

Scientific and common names, and synonyms

5-ALLYL-5-(1-METHYLBUTYL) BARBITURIC ACID

QUINALBARBITONE

2,4,6(1H,3H,5H)-PYRIMIDINETRIONE, 5-(1-METHYLBUTYL)-5-(2-PROPENYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GHA	**1 Sep 1989**	Products containing secobarbital have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
NZL	**1990**	In agreement with the Department of Health, products containing secobarbital sodium have been withdrawn bythe manufacturer. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 258, , 16 July 1990)

Legislative or regulation action

Product Name **Secobabital**

C.A.S. number **76-73-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**May 1991**	Import and marketing of products containing secobarbital were prohibited. (Reference: (OMNCR) Circular, 16/91, , May 1991) **WHO Comment : Secobarbital is a short to intermediate-acting barbiturate which is controlled under Schedule III of the 1971 Convention on Psychotropic Substances. See WHO comment for barbiturates.** **(Reference: (UNCPS3) United Nations Convention on Psychotropic Substances (III), , , 1971)**

Product Name **Selegiline**

C.A.S. number **14611-51-9**

Scientific and common names, and synonyms

BENZENEETHANAMINE, N,?-DIMETHYL-N-2-PROPYNYL-, HYDROCHLORIDE, (R)-

DEPRENYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Feb 1995**	The Food and Drug Administration modified the data sheet for selegiline to reflect the risk of severe adverse events when the drug is used in patients taking antidepressants or selective serotonin receptor antagonists. (Reference: (FDAMB) FDA Medical Bulletin, 25(1), p.6, Feb 1995)
USA	**Mar 1997**	The Food and Drug Administration modified the data sheet for selegiline to note that a few reports of hypertensive reactions associated with the ingestion of tyramine-containing foods have occurred in patients receiving the product at the recommended dose (5 mg, twice daily). (Reference: (FDAMB) FDA Medical Bulletin, 27(1), p.5, Mar 1997)
USA	**Mar 1997**	The Food and Drug Administration refused marketing approval for selegiline citrate for the treatment of Alzheimer's disease. (Reference: (FEREAC) Federal Register, 59(96) , p. 26239, 19 May 1994) **WHO Comment : Selegiline was introduced in the early 1990s. It is a monoamine oxidase inhibitor and is used in the management of Parkinson's disease. A symptomatic effect of selegiline in Parkinson's disease has been shown, but longer follow-up failed to provide any definitive evidence of ability to retard the loss of dopaminergic neurons (Parkinson's Study Group, 1993).**

Product Name **Sertindole**

C.A.S. number **106515-24-9**

Scientific and common names, and synonyms

LU-23-174

1-(2-{4-[5-CHLORO-1-(P-FLUOROPHENYL)INDOL-3-YL]PIPERIDINE}ETHYL)2-IMIDAZOLIDINONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Dec 1998**	The manufacturer of the antipsychotic medication, sertindole (serdolect) voluntarily suspended the availability of serdolect. This is because of concerns about reports of

Product Name **Sertindole**

C.A.S. number **106515-24-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		cardiac arrhythmias and sudden cardiac death associated with its use. (Reference: (GBRCW) Communication, , , 02 Dec 1998)
BGR		The Bulgarian Drug Agency in the Ministry of Health withdrew the atypical antipsychotic agent sertindole (serdolect) because of serious adverse reactions worldwide. (Reference: (BGRBDA) Communication to WHO, , ,)

Product Name **Sibutramine**

C.A.S. number **106650-56-0**

Scientific and common names, and synonyms

BTS-54524 (SIBUTAMINE HYDROCHLORIDE)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1998**	The Drug Enforcement Administration has placed sibutramine for the management of obesity, in Schedule IV of the Controlled Substances Act. This scheduling is based on the low potential for abuse of sibutramine and the fact that it has a currently accepted medical use in treatment in the United States. (Reference: (FEREAC) Federal Register, 63(28) , p. 6862, 1998)

Product Name **Sildenafil**

C.A.S. number **139755-83-2**

Scientific and common names, and synonyms

1-[[3-(4,7-DIHYDRO-1-METHYL-7-OXO-3-PROPYL-1-H-PYRAZOLO[4,3-D]PYRIMIDIN-5-YL)-4-ETHOXYPHENYL]SULFONYL]-4-METHYLPIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHL	**Sep 2001**	The Public Health Institute of Chile modified the labels to include the information that a medical evaluation is needed before administering this medication. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)

Product Name **Silver acetate**

C.A.S. number **563-63-3**

Scientific and common names, and synonyms

ARGENTI ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CYP	**23 Oct 1992**	The Drugs Council rejected a marketing application for a lozenge preparation containing silver acetate intended as a smoking deterrent. (Reference: (CYPPS) Pharmaceutical Services, Ministry of Health, , , 23 Oct 1992) **WHO Comment : Silver acetate has been used as a disinfectant and as an anti-smoking aid. It was refused registration in Cyprus on the grounds that prolonged**

Product Name **Silver acetate**

C.A.S. number **563-63-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		use of silver salts can cause permanent argyria and that no well-controlled trials have been performed to establish the safety and efficacy of the preparation. It remains registered as an aid to stopping smoking in Canada and the United States.

Product Name **Sodium dibunate**

C.A.S. number **14992-59-2**

Scientific and common names, and synonyms

SODIUM 2,6-DI-TERT-BUTYL-1(OR 3)-NAPHTHALENESULFONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Apr 1982**	Withdrawn from use as an antitussive following demonstration of central nervous system toxicity in experimental mice. Prolonged administration in humans results in reduction in granular leukocytes.

Product Name **Sodium hydrogen bicarbonate (paediatric)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NPL	**21 Jul 1997**	The health authorities have banned the importation, manufacture, sale, distribution and storage of sodium hydrogen bicarbonate in liquid formulations intended for paediatric use. This action has been taken on the basis of safety concerns relating to this product. (Reference: (NPLGZ) Nepal Gazette, Part 47(15), Notice 1, 21 July 1997)

Product Name **Somatropin (pituitary-derived)**

C.A.S. number **12629-01-5**

Scientific and common names, and synonyms

GROWTH HORMONE, HUMAN

HGH

STH

SOMATOTROPIN

SOMATOTROPHIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CYP	**1985**	Voluntarily withdrawn by Kabi Vitrum following reports of deaths associated with its use.
IRL	**1985**	Some preparations containing growth hormone derived from human pituitary have been withdrawn while use of others is severely restricted.
ISR	**1985**	The Ministry of Health has decided that no patients should be newly placed on growth hormone therapy unless they are suffering from associated hypoglycaemia. (Reference: (ISRDB) Israel Drug Information Bulletin, , , Feb 1987)

Product Name **Somatropin (pituitary-derived)**

C.A.S. number **12629-01-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**1985**	Preparations of somatropin (growth hormone) extracted from human pituitary glands have been withdrawn by the Department of Health following reports of Creutzfeldt-Jakob disease associated with their use. (Reference: (NZCSL) Clinical Services Letter, Department of Health, , ,)
BEL	**May 1985**	The National Commission for Pitutiary Dwarfism has advised doctors not to prescribe somatropin (human growth hormone) following reports of Creutzfeldt-Jakob disease associated with their use. (Reference: (BFOLP) Folia Pharmacotherapeutica, 12(6), 46, 1985)
GBR	**May 1985**	Withdrawn following reports of deaths associated with its use.
NLD	**May 1985**	The use of products containing pituitary-derived human growth hormone (somatropin) was discontinued following reports of Creutzfeldt-Jakob disease associated with their use.
EGY	**9 Jul 1985**	Withdrawn from the market.
USA	**Aug 1985**	The Food and Drug Administration has withdrawn the licence of the National Pituitary Agency for manufacture of human growth hormone preparations following reports of death associated with their use. (Reference: (FDADB) FDA Drug Bulletin, 15(2), 17-18, 1985)
DEU	**Sep 1985**	The Federal Health Office has informed doctors to restrict the use of human somatropin (growth hormone) to the treatment of pituitary dwarfism with hypoglycaemic reactions or before the end of the growth period. Preparations must bear a warning that some patients contracted Creutzfeldt-Jakob disease after treatment. No more than three batches should be used for each patient.
TUR	**Oct 1985**	Banned for production, import, export, sale and use having regard to severe adverse reactions.
OMN	**16 Jan 1986**	Import of pharmaceutical preparations containing somatropin (human growth hormone) has been prohibited following reports of Creutzfeldt-Jakob disease associated with their use. (Reference: (OMNMH) Ministry of Health, 2, , 1986)
ITA		The manufacture and use of somatropin (human growth) hormone have been restricted following reports of Creutzfeldt-Jakob disease associated with its use.
THA		Preparations containing somatropin are not approved for use.
		WHO Comment : Somatropin, a pituitary-derived human growth hormone, has been used in the treatment of hypopituitary dwarfism for over twenty years. In 1985 it became known that Creutzfeldt-Jakob disease, a potentially fatal form of brain degeneration resulting from a slow neurotropic viral infection, had developed in several patients who had received preparations of somatropin in the late 1960s/early 1970s. This led to the withdrawal of these preparations in many countries. An international collaborative effort was maintained to identify newly-diagnosed cases. By 1990 a total of 30 such cases had been notified. More efficient purification procedures introduced during the 1970s greatly reduced the risk of viral contamination, but products containing pituitary-derived somatropin have been superseded by biosynthetically-manufactured preparations produced using recombinant techniques.

Product Name **Sotalol**

C.A.S. number **3930-20-9**

Scientific and common names, and synonyms

METHANESULFONAMIDE, N-[4-[1-HYDROXY-2-[(1-METHYLETHYL)AMINO]ETHYL]-PHENYL]-,MONOHYDROCHLORIDE

Legislative or regulation action

Product Name **Sotalol**

C.A.S. number **3930-20-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Jul 1996**	The Committee on Safety of Medicines has restricted the indications of sotalol to the treatment of ventricular arrhythmias or prophylaxis of supraventricular arrhythmias. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, 22:6-7, , July 1996) **WHO Comment : Sotalol is a non-selectiveß-adrenoreceptor antagonist. It should be noted that when stopping sotalol the dose should be reduced gradually.**

Product Name **Sparfloxacin**

C.A.S. number **110871-86-8**

Scientific and common names, and synonyms

5-AMINO-1-CYCLOPROPYL-7-(CIS-3,5-DIMETHYLPIPERAZIN-1-YL)-6,8-DIFLUORO-4-OXOQUINOLINE-3-CARBOXYLIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**1995**	The Pharmaceutical Affairs Bureau has decided to include a warning statement in the data sheet for sparfloxacin about photosensitivity and rash related to exposure to sunlight. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.127, , July 1994)
FRA	**Jun 1995**	The Medicines Agency has announced that in view of a large number of reports of phototoxicity associated with the use of sparfloxacin, the indications for the use of sparfloxacin have been restricted to: acute bacterial pneumonia, diagnostically confirmed by X-ray, and to acute bacterial sinusitis with documented evidence of pneumococcus with reduced sensitivity to penicillin. (Reference: (FRAAMC) Communiqué de Presse, , , 06 June 1995) **WHO Comment : Sparfloxacin is a quinolone antimicrobial agent. See also under quinolone and fluoroquinolone antimicrobial agents.**

Product Name **Spironolactone**

C.A.S. number **52-01-7**

Scientific and common names, and synonyms

PREGN-4-ENE-21-CARBOXYLIC ACID, 7-(ACETYLTHIO)-17-HYDROXY-3-OXO,GAMMA- LACTONE, (7ALPHA,17ALPHA)-

17-HYDROXY-7ALPHA-MERCAPTO-3-OXO-17ALPHA-PREGN-4-ENE-21-CARBOXYLIC ACID, GAMMA-LACTONE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Oct 1986**	Having regard to the possible carcinogenic risk associated with long-term use of spironolactone, the approved indications of products containing spironolactone are now restricted to cirrhosis with ascites and oedema, malignant ascites, nephrotic syndrome, the diagnosis and treatment of primary hyperaldosteronism, and congestive heart failure. **WHO Comment : Spironolactone, an aldosterone antagonist, has been widely used for over 25 years in the treatment of hypertension and in the management of refractive oedema. Evidence that long-term administration of high doses are tumorigenic in the rat has recently led to restriction of its use by some national regulatory authorities although the significance of this finding with respect to clinical use is not certain. In 1987 spironolactone was transferred from the main list to the complementary list of the WHO Model List of Essential Drugs. (See also**

Product Name **Spironolactone**

C.A.S. number **52-01-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO comments for canrenone and potassium canrenoate). **(Reference: (WHODI) WHO Drug Information, 2(1), , 1988)**

Product Name **Streptomycin**

C.A.S. number **57-92-1**

Scientific and common names, and synonyms

D-STREPTAMINE, O-2-DEOXY-2-(METHYLAMINO)-ALPHA-L-GLUCOPYRANOSYL-(1->2)-O-5-DEOXY-3-C-FORMYL-ALPHA-L-LYXOFURANOSYL-(1->4)-N,N'-BIS(AMINOIMINOMETHYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
KOR	**May 1991**	Antidiarrhoel products containing streptomycin were not accepted for registration. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991)
LBN	**03 Aug 1991**	Liquid formulations of products containing streptomycin indicated for the treatment of diarrhoea in children were withdrawn. (Reference: (LBNMHD) Ministry of Health and Social Affairs Decree, 150/1, , Aug 1991) **WHO Comment : Oral preparations of streptomycin, an aminoglycoside antibiotic isolated from streptomyces griseus in 1944, were formerly widely used to treat intestinal infections. There is no evidence that streptomycin is effective in this indication and its widespread use promotes the emergence of resistant strains of bacteria. The World Health Organization recommends that streptomycin should not be used for the treatment of diarrhoea.** **(Reference: (WHORUD) The Rational Use of Drugs, , , 1990)**

Product Name **Strychnine and salts**

C.A.S. number **57-24-9**

Scientific and common names, and synonyms

STRYCHNIN (DEU)

STRYCHNIDIN-10-ONE

STRICNINA (ITA)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CAN	**1979**	The Health Protection Branch has considered the value of strychnine in drugs for human use and concluded that this substance has no established therapeutic significance. S.C. 01.038 of the Food and Drug Act states that "A drug for human use is adulterated if it contains: a) strychnine or any of its salts, b) extracts or tinctures of 1) Strychnos nux-vomica 2) Strychnos ignatii or 3) Strychnos species containing strychnine, other than those species mentioned in sub paragraph 1) and 2)".
BRA	**17 Jul 1980**	Products containing strychnine are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, (12), , 1980)
BGD	**Mar 1982**	Under the provisions of the Drugs (Control) Ordinance, this product has been banned. Authorities feel that "Strychnine should only be used as a rodenticide".

Product Name **Strychnine and salts**

C.A.S. number **57-24-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
JPN	**1987**	Preparations containing strychnine have been withdrawn.
PAK	**Jan 1987**	The Registration Board of the Ministry of Health has directed manufacturers to reformulate all preparations containing strychnine so as to delete this ingredient.
BRA	**Feb 2001**	Registration of combination products containing strychnine are banned because of the potential to cause convulsions. (Reference: (BRARES) Resolucao n., 147/ANVISA, , 14 Aug 2001)
ARE		Pharmaceutical preparations containing strychnine are banned.
PHL		Products containing strychnine are banned for use and sale.
		WHO Comment : Strychnine, the principal alkaloid present in nux vomica, was first used in medicine several centuries ago. However, it has no demonstrated therapeutic value and there is no current justification for its presence in any medication. It continues to be used as a rodenticide though such use is severely restricted in many countries since accidental ingestion can be lethal.

Product Name **Sulfacarbamide**

C.A.S. number **547-44-4**

Scientific and common names, and synonyms

SULFANILYLUREA

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office withdrew products containing sulfacarbamide from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products is negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992)
		WHO Comment : Sulfacarbamide, a sulfonamide anti-infective agent, was introduced in the 1940's for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. The Sulfacarbamide are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfacarbamide still remains available in at least one country for the treatment of urinary infections.

Product Name **Sulfadicramide**

C.A.S. number **115-68-4**

Scientific and common names, and synonyms

3-METHYL-N-SULPHANILYLCROTONAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Sulfadicramide**

C.A.S. number **115-68-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfanilamide from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded taht the benefit/risk ratio for these products is negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992) **WHO Comment : Sulfadicramide, a sulfonamide anti-infective agent, was introduced in 1942 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfadicramide is still used in some countries as a 15% ointment for application to the eye.**

Product Name **Sulfadimidine**

C.A.S. number **57-68-1**

Scientific and common names, and synonyms

SULFAMETHAZINE

SULFADIMIDINUM

SULFADIMEZINIUM

SULFADIMETHYLPYRIMIDINE

SULFADIMERAZINE

4-(4,6-DIMETHYLPRIMIDINE-2-YL)SULPHANILIMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfadimidine from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products is negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992) **WHO Comment : Sulfadimidine, a sulfonamide anti-infective agent, was introduced in 1942 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfadimidine is still used in some countries as a injectable or oral antimicrobial for susceptible infections.**

Product Name **Sulfaguanidine**

C.A.S. number **57-67-0**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Sulfaguanidine**

C.A.S. number **57-67-0**

Scientific and common names, and synonyms

BENZENESULFONAMIDE, 4-AMINO-N-(DIAMINOMETHYLENE)-
N-AMIDINOSULPHANILAMIDE MONOHYDRATE
N1-(DIAMINOMETHYLENE)SULFANILAMIDE
SULGIN
SULGINUM
SOLFAGUANIDINA
SULFAMIDINUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM	**Jun 1971**	Prohibited for import, manufacture, distribution, storage, sale or medical prescription. It has been found to be ineffectual in the treatment of acute bacterial dysentery and in therapeutic use with colon surgery in reducing hospitalization. Furthermore, it has been shown that most strains of Shigella have developed a resistance against this drug in vivo.
IRN	**1972**	The Ministry of Health has prohibited the importation and production of all drugs containing sulfaguanidine.
THA	**Jan 1975**	May only be used in the treatment of diarrhoea.
TUR	**4 Mar 1985**	Banned for production and sale having regard to severe adverse reactions.
PAK	**1988**	Tablets containing sulfaguanidine were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
NPL	**1991**	Products containing sulfaguanidine either alone or in combination, and intended for the treatment of diarrhoea in children, were banned. (Reference: (NPLDDA) Communication from the Department of Drug Administration, , , 27 Feb 1992)
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfaguanidine from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products in negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992)
ARM	**Jul 2000**	The Drug and Medical Technology Agency withdrew registration of the antidiarrhoeal drug sulgin because of increasing resistance to sulfonamides and also because nonabsorbable sulfonamides containing antidiarrhoeal products are not recommended in the treatment of diarrhoea. (Reference: (ARMCW) Communication to WHO, , , 09 Aug 2000)
DNK		Withdrawn from the market by the manufacturer.
VEN		Not approved for use and/or sale. Compound currently under study.

WHO Comment : Sulfaguanidine, a sulfonamide anti-infective agent, was introduced in 1941 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Although sulfaguanidine, which is poorly absorbed from the gastrointestinal tract, is no longer recommended in some countries, it continues to be used in others for the treatment of local intestinal infections, including bacterial dysentery, and for pre-

Product Name **Sulfaguanidine**

C.A.S. number **57-67-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		operative bowel preparation.

Product Name **Sulfamerazine sodium**

C.A.S. number **127-58-2**

Scientific and common names, and synonyms

SULFAMERAZINUM NATRICUM

SOLUBLE SULPHERAMERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfamerazine sodium from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products is negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992) **WHO Comment : Sulfamerazine sodium, a sulfonamide anti-infective agent, was introduced several decades ago for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfamerazine is still used in some countries usually in combination with other sulfonamides.**

Product Name **Sulfamethizole**

C.A.S. number **144-82-1**

Scientific and common names, and synonyms

BENZENESULFONAMIDE, 4-AMINO-N-(5-METHYL-1,3,4-THIADIAZOL-2-YL)-

N1-(5-METHYL-1,3,4-THIADIAZOL-2-YL)SULPHANILAMIDE

N1-(5-METHYL-1,3,4-THIADIAZOL-2-YL)-SULFANILAMIDE

SULPHAMETHIZOLE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Feb 1984**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. A combination of adverse reactions and low sales led to this decision. **WHO Comment : Sulfamethizole, a sulfonamide anti-infective agent, was introduced in 1953 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. However sulfamethizole, which is rapidly eliminated, retains a place in the treatment of urinary infections in some countries whereas in others its use**

Product Name **Sulfamethizole**

C.A.S. number **144-82-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		has been discontinued.

Product Name **Sulfamethoxypyridazine**

C.A.S. number **80-35-3**

Scientific and common names, and synonyms

N1-(6-METHOXYPYRIDAZIN-3-YL)SULPHANILAMIDE

N1-(6-METHOXY-3-PYRIDAZINYL)SULFANILAMIDE

SULPHAMETHOXYPYRIDAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Feb 1984**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. A combination of adverse reactions and low sales led to this decision.
PAK	**1988**	Products containing sulfamethoxypyridazine were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
ARE		Pharmaceutical preparations containing sulfamethoxypyridazine are banned. **WHO Comment : Sulfamethoxypyridazine, a sulfonamide anti-infective agent, was introduced in 1957 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Commercial manufacture of the drug has been discontinued by at least one major manufacturer but supplies can still be obtained on special request, particularly for patients with dermatitis herpetiformis in which condition it has been claimed to be beneficial.**

Product Name **Sulfanilamide**

C.A.S. number **63-74-1**

Scientific and common names, and synonyms

SULFANILAMIDUM

SULFAMINUM

STREPTOCIDIN

SOLFAMMIDE

4-AMINOBENZENESULPHONAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfanilamide from the market. This decision is based on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products is

Product Name **Sulfanilamide**

C.A.S. number **63-74-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992) **WHO Comment : Sulfanilamide, a sulfonamide anti-infective agent, was introduced in 1936 for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfanilamide is still used in some countries as a pessaries or as vaginal cream.**

Product Name **Sulfathiazole**

C.A.S. number **72-14-0**

Scientific and common names, and synonyms

BENZENESULFONAMIDE, 4-AMINO-N-2-THIAZOLYL

NORSULFAZOLUM

N1-2-THIAZOLYLSULFANILAMIDE

N1-(THIAZOL-2-YL)SULPHANILAMIDE

SULFONAZOLUM

SULFANILAMIDOTHIAZOLUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1970**	Sulfathiazole has been withdrawn as an ingredient in products for systemic use due to the known serious hazards associated with this compound. The Food and Drug Administration has determined that the benefit/risk ratio associated with this compound is unfavourable especially in the light of the availability of other sulfonamides with equivalent benefits and less risk. Prohibited for export. (Reference: (FEREAC) Federal Register, 35, 16190, Oct 1970)
PHL	**May 1971**	The use of this drug as an antidiarrhoeal has been withdrawn due to the risk of crystalluria.
DOM	**Mar 1982**	Preparations containing sulfathiazole or its sesquihydrate or monohydrate as the active ingredient have been prohibited for use and/or sale since they have been associated with serious side effects and shown to be of questionable efficacy. **WHO Comment : Sulfathiazole, a sulfonamide anti-infective agent, was introduced more than 25 years ago for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing bacterial resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Although preparations remain available, use of the drug has been discontinued in many countries.**

Bibliographical references

WHO FOOD ADD., 25, 95, 1991

Product Name **Sulfisomidine**

C.A.S. number **515-64-0**

Scientific and common names, and synonyms

N-(2,6-DIMETHYLPYRIMIDIN-4-YL)SULPHANILAMIDE

SULFASOMIDINE

SULFAISODIMIDINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1992**	The Federal Health Office has withdrawn products containing sulfisomide from the market. This decision isbased on a review carried out by the Advisory Panel for the Evaluation of Medicines which concluded that the benefit/risk ratio for these products is negative. (Reference: (DWM) Wichtige Mitteilungen, 18, , 1992) (Reference: (DAZ) Deutsche Apotheker Zeitung, 132(11), , 1992) **WHO Comment : Sulfisomide, a sulfonamide anti-infective agent, was introduced several decades ago for the treatment of bacterial infections. The importance of sulfonamides has subsequently decreased as a result of increasing resistance and their replacement by antibiotics which are generally more active and less toxic. The sulfonamides are known to cause serious adverse effects such as renal toxicity, sometimes fatal exfoliative dermatitis and erythema multiforma and dangerous adverse reactions affecting blood formation such as agranulocytosis and haemolytic or aplastic anaemia. Sulfisomide is still used topically in some countries for vaginal infection.**

Product Name **Sulfonamides (topical preparations)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHL		Pharmaceutical preparations for topical use containing sulfonamide and its derivatives are prohibited. (Reference: (CHLRS) Resolution of the Minister of Health, No.10154, , Oct 1986)

Product Name **Suloctidil**

C.A.S. number **54767-75-8**

Scientific and common names, and synonyms

BENZENEMETHANOL, 4-((1-METHYLETHYL)THIO)-ALPHA-(1-(OCTYLAMINO)ETHYL-, (R*,S*)-

ERYTHRO-P-(ISOPROPYLTHIO)-ALPHA-(1-(OCTYLAMINO)ETHYL)BENZYL ALCOHOL

1-(4-ISOPROPYLTHIOPHENYL)-2-OCTYLAMINOPROPAN-1-OL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**1985**	Suloctidil, a vasodilator, was voluntarily withdrawn worldwide by the manufacturer following several reports of hepatitis associated with its use, some of which were fatal.
DEU	**Jul 1985**	The Federal Office of Health has not renewed its approval for suloctidil following reports of hepatitis. Meanwhile the manufacturer stopped the sale of this drug and recalled all distributed packages.
AUT	**Oct 1985**	The Federal Ministry of Health and Environmental Protection prohibited the use of preparations containing suloctidil following reports of hepatotoxic effects.

Product Name **Suloctidil**

C.A.S. number **54767-75-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CYP		Voluntarily withdrawn by the manufacturer following reports of hepatitis. **WHO Comment : Suloctidil, a peripheral vasodilator, was introduced in 1975 for the treatment of arterial disease. By 1985 its use had been associated with serious adverse effects, including deaths from hepatitis. In July 1985 renewal for approval was refused in the Federal Republic of Germany. This was followed by the voluntary withdrawal of the drug by the manufacturer firstly in several European countries and ultimately on a worldwide basis.**

Product Name **Sulprostone**

C.A.S. number **60325-46-4**

Scientific and common names, and synonyms

[1R-[1ALPHA(Z),2BETA(1E,3R*),3ALPHA]]-7-[3-HYDROXY-2-(3-HYDROXY-4-PHENOXY-1-BUTENYL)-5-OXOCYCLOPENTYL]-N-(METHYLSULFONYL)-5-HEPTENAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	Apr 2001	Severely restricted prescription drug to be used in hospitals only. (Reference: (THACW) Communication to WHO, , , 28 Sep 2001)

Product Name **Sultopride**

C.A.S. number **53583-79-2**

Scientific and common names, and synonyms

N-[(1-ETHYL-2-PYRROLIDINYL)METHYL]-5-(ETHYLSULFONYL)-O-ANISAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	Oct 1991	The Ministry of Health extended the contraindications for products containing sultopride to patients with bradycardia and hypokalaemia; to those receiving drugs that may induce bradycardia, hypokalaemia, impairment of intracardiac conduction and ventricular arrhythmias; and to breastfeeding women. The association of sultopride with other phenothiazines was also discouraged. A warning was required in the product information stating that patients with severe cardiovascular disorders are at risk of hypotension and cardiac arrhythmias. These amendments to the approved product information were made following reports of ventricular arrhythmias in patients treated with sultopride. (Reference: (FRAMHH) Ministry of Health and Humanitarian Action, , , 11 Dec 1992) **WHO Comment : Sultopride, a neuroleptic indicated for the treatment of acute and chronic psychoses, was introduced on the market in 1976. In the early 1990s, its use was associated with cardiac arrhythmias, some of which were fatal. This led the regulatory authority in France to take restrictive action on the product. Sultopride continues to be marketed in several other countries.**

Product Name **Sumatriptan**

C.A.S. number **103628-48-4**

Scientific and common names, and synonyms

1H-INDOLE-5-METHANESULFONAMIDE, 3-[2-(DIMETHYLAMINO)ETHYL]-N-METHYL-, BUTANEDIOATE (1:1)

Product Name **Sumatriptan**

C.A.S. number **103628-48-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**1993**	The Ministry of Health has modified the approved data sheet for products containing the serotonin receptor agonist, sumatriptan, to include the following precautions: at least one hour should elapse between any two injections; treatment is contraindicated in persons suffering from coronary vasospasm or other cardiovascular disorders; the effects of sumatriptan may be potentiated by ergotamine. (Reference: (BELARD) 1993 Annual Report, , , May 1994)
DEU	**Feb 1994**	The Federal Health Office has amended the data sheet for pharmaceutical products containing the serotonin receptor agonist, sumatriptan (Imigran: Glaxo), to include all degrees of hypersensitivity including shock in the listed adverse effects associated with treatment. (Reference: (BGHBL) Bundesgesundheitsblatt, No. 2/94, p.94, Feb 1994)
DEU	**May 1994**	The Federal Health Office proposed to revise the product information for pharmaceutical products containing sumatriptan (Avessa, Imigran: Glaxo) to state that patients should not be treated concomitantly with sumatriptan and medicinal products which influence the serotonin metabolism (MAO inhibitors, inhibitors of serotonin re-uptake, clomipramine, lithium), and that the use of sumatriptan is contraindicated in patients with migraine accompanied by unilateral weakness or paralysis, paralysis of the eye muscles (hemiplegic migraine), or temporary disturbance of vision resulting in double images or blind spots (ophthalmoplegic migraine). Sumatriptan is also contraindicated in patients who suffer from heart diseases and it shall be given with caution and only after careful evaluation to asymptomatic patients with clinically important risk factors for coronary heart disease (hyperlipidemia, obesity, diabetes mellitus, smoking). (Reference: (DEUFHO) Communication from Federal Health Office, , , 25 May 1994)
DEU	**Oct 1994**	The manufacturer of the serotonin receptor agonist, sumatriptan (Imigran: Glaxo) has revised the prescribing information for this product in the light of severe adverse reactions which have been ascribed to the incorrect use of sumatriptan, some of which were fatal. Sumatriptan should only be used for the treatment of migraine or confirmed cluster headache. Sumatriptan should not be administered to patients who develop unexplained thoracic symptoms (e.g. angina-like symptoms) until cardiovascular disease can be excluded. Sumatriptan should be administered only after cardiovascular disease has been excluded to patients with existing heart disease or asymptomatic patients with risk factors for coronary heart disease (older than 40 years, high blood pressure, smoking, diabetes mellitus, obesity, long-term use of high-dose ergotamine preparations). (Reference: (DEUFHO) Communication from Federal Health Office, , , 25 May 1994)
FRA	**Feb 1995**	Following a request from the manufacturer of the serotonin receptor agonist, sumatriptan (Imigran: Glaxo), the French Commission of Pharmacovigilance has revised the product information for this product as follows. Concurrent use with monoamine oxidase inhibitors, serotonin receptor antagonists and ergot derivatives is now contraindicated. A previous history of allergy to sulfonamides will be mentioned in this section because of serious cross-reactions due to a sulfonamide group in the sumatriptan molecular structure. The warnings section will carry a reminder that sumatriptan should be administered only after a diagnosis of migraine or facial vascular algia has been clearly established and that if the first injection is ineffective, the diagnosis has to be reconsidered before a second dose is administered in case the headache may be a symptom of another condition. A reminder will be included concerning cardiovascular risk factors and the section on precautions for use will state that in patients with a history of convulsions or epilepsy, the occurrence of seizures must be taken into account. The section adverse effects will include allergic reactions and convulsions. (Reference: (FRAAMC) Communiqué de Presse, , , 02 Feb 1995)
GBR	**Feb 1995**	The manufacturer of the serotonin receptor agonist, sumatriptan (Imigran: Glaxo) has revised the prescribing information for this product on the basis of adverse cardiac effects from post-marketing safety monitoring data and with the aim of promoting its appropriate use. The existing warnings and precautions section has been strengthened

Product Name **Sumatriptan**

C.A.S. number **103628-48-4**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		to ensure that there is a clear diagnosis of migraine/cluster headache before administration of sumatriptan; patients in whom unrecognized coronary disease is likely (postmenopausal women, men over 40 or patients with other cardiovascular risk factors) do not receive sumatriptan until an appropriate evaluation has been performed to exclude underlying heart disease since extremely rare cases of cardiac arrhythmias, transient ischaemic ECG changes or myocardial infarction have been reported; if symptoms consistent with ischaemic heart disease occur, an appropriate evaluation should be carried out. The list of contraindications now includes concomitant use of derivatives of ergotamine as well as ergotamine, and the list of adverse effects additionally lists tachycardia and palpitations. (Reference: (GLAXO) Communication, , , 03 Feb 1995)
USA	**Aug 1995**	The manufacturer of sumatriptan (Imitrex : Glaxo) has issued a "Dear Health Professional" letter stating that sumatriptan should be prescribed only when a clear diagnosis of migraine has been established. It should not be given to patients in whom unrecognized coronary artery disease is likely without a prior evaluation for underlying cardiovascular disease. (Reference: (FDAMB) FDA Medical Bulletin, 25(2), p. 6, Aug 1995)

Product Name **Suprofen**

C.A.S. number **40828-46-4**

Scientific and common names, and synonyms

BENZENACETIC ACID, ALPHA-METHYL-4-(2-THIENYLCARBONYL)-

PARA-2-THENOYLHYDRATROPIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD		The manufacturer has suspended sales worldwide. **WHO Comment : Suprofen, a nonsteroidal anti-inflammatory agent, was introduced in 1983 for use as an analgesic for the symptomatic relief of mild to moderate pain and for primary dysmenorrhoea. By 1986 it had become evident that its use was occasionally associated with flank pain sometimes accompanied by evidence of decreased renal function. The Arthritis Advisory Committee of the United States Food and Drug Administration met in December 1986 to review the situation and decided against withdrawing suprofen from the market. However, in May 1987 the Committee for Proprietary Medicinal Products of the European Community recommended that all marketing authorizations should be suspended. The manufacturer subsequently decided to suspend sale worldwide on the grounds that sales had diminished to the point where the product was no longer economically viable.**

Product Name **Suxamethonium chloride**

C.A.S. number **71-27-2**

Scientific and common names, and synonyms

ETHANAMINIUM, 2,2'-[(1,4-DIOXO-1,4,-BUTANEDIYL)BIS(OXY)]BIS[N,N,N,-TRIMETHYL-], DICHLORIDE

SUCCINYLCHOLINE CHLORIDE

Legislative or regulative action

Product Name **Suxamethonium chloride**

C.A.S. number **71-27-2**

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Feb 1995**	The Federal Institute for Drugs and Medical Devices revised the product information to include a warning concerning possible irreversible cardiac arrest in children and adolescents. Because of the life-threatening nature of the adverse reaction, it is recommended that administration of suxamethonium chloride to children and adolescents, even if they appear to be healthy, should be considered only when immediate intubation is planned or where there are facilities for maintaining the airway in emergency. (Reference: (DEURFI) Rapid Alert - Pharmacovigilance, , , 03 Feb 1995) **WHO Comment : Suxamethonium chloride is a short-acting muscle relaxant. It is used in surgery. Suxamethonium chloride is listed in the WHO Model List of Essential Drugs.**

Product Name **Suxibuzone**

C.A.S. number **27470-51-5**

Scientific and common names, and synonyms

4-BUTYL-(4-HYDROXYMETHYL)-1,2-DIPHENYL-3,5-PYRAZOLIDINEDIONE HYDROGEN SUCCINATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1977**	Indications are restricted to severe exacerbations of rheumatoid arthritis, osteoarthritis and ankylosing spondylitis. Doctors are advised to prescribe this drug only to adults and for periods of no longer than one week.
DEU	**1985**	Indications are restricted to severe exacerbations of rheumatism and acute gout. Duration of oral treatment should not exceed one week. Parenteral preparations are indicated only for initiating therapy. A single injection only is recommended because local tissue damage may occur. Preparations are contraindicated in children under 14 years of age.
OMN	**Sep 1986**	The Ministry of Health has prohibited the import of preparations containing suxibuzone except those intended for topical use.
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy. **WHO Comment : Suxibuzone, a pyrazolone derivative with anti-inflammatory, analgesic and antipyretic activity, was introduced in 1974 for the treatment of rheumatic disorders. As it is structurally related to phenylbutazone, it is subjected to rigorously restricted indications by some national regulatory authorities. See WHO comment for phenylbutazone.**

Product Name **Tamoxifen**

C.A.S. number **10540-29-1**

Scientific and common names, and synonyms

ETHANAMINE, 2-[4-(1,2-DIPHENYL-1-BUTENYL)PHENOXY]-N,N-DIMETHYL, (Z)-, 2-HYDROXY-1,2,3-PROPANETRICARBOXYLATE (1:1)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Dec 1995**	The Federal Institute for Drugs and Medical Devices has decided that the following warnings should be included in the product information for pharmaceutical products

Product Name **Tamoxifen**

C.A.S. number **10540-29-1**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		containing tamoxifen: "Investigations in different in vivo and in vitro systems prove that tamoxifen has a genotoxic potential following hepatic activation; clinical reports yield signs of an increased risk of developing endometrial tumours". (Reference: (DEURFI) Rapid Alert - Pharmacovigilance, , , 23 Dec 1995)
ZAF	**Jun 1996**	The Medicines Control Council has revised the package insert for pharmaceutical products containing tamoxifen to include a warning about an increased incidence of endometrial changes, including hyperplasia, polyps and cancer reported in association with tamoxifen treatment. (Reference: (ZAFMCC) Communication, , , 22 June 1996) **WHO Comment : Tamoxifen is an anti-estrogen agent used mainly to treat breast cancer. Tamoxifen is listed in the WHO Model List of Essential Drugs.**

Product Name **Tartrazine**

C.A.S. number **1934-21-0**

Scientific and common names, and synonyms

COLOUR INDEX NO. 19140

CI FOOD YELLOW 4

E 102

FD&C YELLOW NO.5

TRISODIUM 5-HYDROXY-1-(4-SULPHONATOPHENYL)-4-(4-SULPHONATOPHENYLAZO) PYRAZOLE-3-CARBOXYLATE

TARTRAZOL YELLOW

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1984**	Not allowed in antihistamines and bronchodilators. All other products must bear a warning about allergic reactions.
NZL	**Aug 1984**	The inclusion of tartrazine in medicines for internal use will be phased out over the next two years having regard to its allergenic potential. It can be used in products for external use. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 224, , Jan 1984)
IRL	**1985**	Products intended for the management of allergic states and for prolonged use should be reformulated to exclude tartrazine. Use of tartrazine should be discouraged in all other preparations and where it is present it should be declared on the label. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , , 1985)
HUN	**31 Mar 1990**	Tartrazine is no longer accepted as a colouring agent in pharmaceutical products submitted for registration. In registered products it must be replaced by 31 December 1992 and, in the meantime, these products must bear the warning: "This preparation contains tartrazine which may cause allergic reactions in sensitized individuals". (Reference: (HUNIP) National Institute of Pharmacy, , , 08 Feb 1990)
OMN	**Mar 2002**	The Directorate General of Pharmaceutical Affairs and Drug Control has banned the use of Tartrazine FD&C Yellow No. 5 in pharmaceutical products, in any pharmaceutical form, following similar restrictions worldwide due to a spectrum of side effects such as allergies, thyroid tumors, lymphocytic lymphomas, chromosomal damage, asthma attacks, urticaria and hyperactivity. (Reference: (OMNCR) Circular, 50/2001, , 12 Nov 2001) **WHO Comment : Tartrazine is widely used as a permitted colouring agent in food**

Product Name **Tartrazine**

C.A.S. number **1934-21-0**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		and pharmaceutical preparations. Its use has been associated with allergic reactions some of which have been severe. Several national drug regulatory authorities now require a warning on labels of products containing tartrazine and some manufacturers have voluntarily withdrawn this compound from their products.

Product Name **Temafloxacin**

C.A.S. number **108319-06-8**

Scientific and common names, and synonyms

(+/-)-(2,4-DIFLUOROPHENYL)-6-FLUORO-1,4-DIHYDRO-7-(3-METHYL-1-PIPERAZINYL)-4-OXO-3-QUINOLINECARBOXYLIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Jun 1992**	Products containing temafloxacin were withdrawn worldwide by the manufacturer, having regard to severe adverse reactions associated with their use, some of which were fatal. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, P92-16, , 05 June 1992)
OMN	**22 Jun 1992**	Products containing temafloxacin will not be allowed for import and marketing. (Reference: (OMNCR) Circular, 25/92, , June 1992) **WHO Comment : Temafloxacin, a quinolone antimicrobial, was introduced in 1991. Shortly afterwards, its use became associated with severe adverse effects, including hypoglycaemia, haemolytic anaemia, renal failure, hepatitis and anaphylactic reactions. This led to its worldwide withdrawal by the manufacturer.**

Product Name **Temazepam**

C.A.S. number **864-50-4**

Scientific and common names, and synonyms

7-CHLORO-3-HYDROXY-1-METHYL-5-PHENYL-1,4-BENZODIAZEPIN-2-ONE

3-HYDROXYDIAZEPAM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Sep 1995**	The authorities in the United Kingdom have announced that temazepam is to be subjected to stricter regulations and is to be transferred from Schedule 4 of the Misuse of Drugs Regulations 1985 to Schedule 3, however with some exemptions. These measures are being taken in an attempt to prevent misuse of temazepam. (Reference: (GBRPR) Press Release, , , 12 Sep 1995) **WHO Comment : Temazepam is a widely used benzodiazepine derivative. As with other drugs in this class, cases of misuse and drug dependence are known.**

Product Name **Terbinafine**

C.A.S. number **91161-71-6**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Terbinafine**

C.A.S. number **91161-71-6**

Scientific and common names, and synonyms

1-NAPHTHALENEMETHANAMINE, N-(6,6-DIMETHYL-2-HEPTEN-4-YNYL)-N-METHYL-, (E)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**25 Jan 1995**	The National Commission of Pharmacovigilance has revised the product information to include serious adverse effects associated with the use of the antifungal agent, terbinafine (Lamisil®), including severe cutaneous disorders, haematological and hepatic risks, and possible taste disorders in the section on "Adverse effects". (Reference: (FRAAMN) Notification, , , 25 Jan 1995)

Product Name **Terconazole**

C.A.S. number **67915-31-5**

Scientific and common names, and synonyms

CIS-1-[P-((2-(2,4-DICHLOROPHENYL)-2-(1H-1,2,4-TRIAZOL-1-YLMETHYL)-1,3-DIOXOLAN-4-YL)METHOXY)PHENYL]-4-ISOPROPYLPIPERAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Dec 1988**	The marketing authorization of vaginal suppositories containing 160 mg terconazole has been suspended, having regard to reports of fever, shivering, headace and circulatory reactions associated with their use. Lower dose formulations remain available. (Reference: (BGHBL) Bundesgesundheitsblatt, 12, 492, 1988)
SWE	**Jul 1991**	The marketing authorization for vaginal suppositories containing 80 mg and 160 mg terconazole was withdrawn, after these preparations had been associated with febrile reactions, often accompanied by influenza-like symptoms. (Reference: (SWEILS) Information från Läkemedelsverket, 2(3), 158, 1991) **WHO Comment : Terconazole, an antifungal agent, was introduced into medicine in 1980. It is indicated for the treatment of vaginal candidiasis. It is not yet clear whether the adverse effects associated with high dose formulations are due to terconazole itself, to an excipient in the preparation or to fungal constituent.**

Product Name **Terfenadine**

C.A.S. number **50679-08-8**

Scientific and common names, and synonyms

A-[4-(1,1-DIMETHYLETHYL)PHENYL]-4-(HYDROXYDIPHENYLMETHYL)-1-PIPERIDINEBUTANOL

1-PIPERIDINEBUTANOL, ?-[4-(1,1-DIMETHYLETHYL)PHENYL]-4-(HYDROXYDIPHENYLMETHYL)-1-PIPERIDINEBUTANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FIN	**Sep 1994**	The National Agency for Medicines has withdrawn from OTC sale and placed under prescription control products containing terfenadine. Adverse reactions have been reported in cases where terfenadine was used concomitantly with ketoconazole and macrolide antibiotics; the possibility that such reactions might occur when terfenadine is used for self-medication cannot be excluded. (Reference: (FINNAM) Notice, , , 21 Sep 1994)
JPN	**Feb 1995**	The Pharmaceutical Affairs Bureau has decided to include in the labelling of terfenadine

Product Name **Terfenadine**

C.A.S. number **50679-08-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		a boxed warning drawing attention to the fact that the metabolism of terfenadine is inhibited either by concomitant medication of imidazole antifungal agents or macrolide antibiotics, or in patients with serious liver damage, or in patients liable to QT prolongation. This may lead to serious cardiovascular adverse reactions. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.130, , Feb 1995)
NZL	**Oct 1996**	Terfenadine has been reclassified to Restricted Medicine (an OTC classification, but may only be sold personally by a pharmacist). (Reference: (NZLPU) Prescriber Update, No.13, , Oct 1996)
OMN	**1997**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of terfenadine due to reported serious cardiac adverse effects associated with its inappropriate use. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)
FRA	**Feb 1997**	The French Health Authority has suspended the marketing authorization for terfenadine for one year because of the risk of rare but serious ventricular arrhythmias following overdosage and the risk of hepatic damage and cardiac reaction when taken concomitantly with imidazole antifungal agents. (Reference: (FRAAMP) Press Release, , , 13 Feb 1997)
JPN	**Feb 1997**	The Pharmaceutical Affairs Bureau has expanded its warnings in the labelling for terfenadine by adding the possibility of dangerous interactions with some antiarrhythmic drugs, diuretics, psychotropic drugs and probucol. (Reference: (JPNMHC) Communication to WHO, , , 13 Feb 1997)
MAR	**Feb 1997**	The National Advisory Commission for Pharmacovigilance has reviewed the overall risk-benefit of terfenadine and decided to withdraw terfenadine from the market because of the risk of cardiac arrhythmia associated with the administration of terfenadine. (Reference: (MARDMP) Letter to WHO, , , 24 Aug 1999)
GBR	**16 Sep 1997**	The Committee on Safety of Medicines has decided that as from 16 September 1997, terfenadine will only be available on prescription. In addition to conditions for use of terfenadine issued in other countries the CSM advises patients not to drink grapefruit juice while taking terfenadine. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol.23, , Sep 1997)
OMN	**Dec 1997**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of terfenadine due to reported serious cardiac adverse effects associated with its inappropriate use. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)
USA	**1998**	Hoechst, Marion Roussel and Baker Norton Pharmaceuticals have voluntarily discontinued distribution and marketing of all terfenadine-containing antihistamine products in the United States. Terfenadine-containing products have been associated with rare, but serious heart problems when taken with certain antibiotics and antifungals. The FDA reminded consumers and health care providers that equally safe and effective alternative drugs are available. (Reference: (FDATPW) FDA Talk Paper www.fda.gov/bbs/topics/ANSWERS/ANS00853. html, , ,)
MUS	**Dec 1998**	The Ministry of Health and Quality of Life has withdrawn terfenadine from the market following reports of fatal drug interactions with commonly use drugs. . (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)
FRA	**1999**	The Agence du Médicament has withdrawn the antihistamine, terfenadine from the market because the risk of ventricular arrhythmias does not justify the continuation of terfenadine on the market. (Reference: (FRACCE) Décision, , , 22 Sep 1998)

Product Name **Terfenadine**

C.A.S. number **50679-08-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISL	**Jan 1999**	The State Committee on Pharmaceuticals in Iceland withdrew the marketing authorization for 120 mg tablets of terfenadine and 60 mg tablets were switched from OTC to POM status in January 1998 due to the occurrence of serious adverse effects. (Reference: (ISLSCP) Communication to WHO, , , 17 Oct 2000)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market products containing the histamine H1-receptor antagonist, terfenadine, because of reports of a potentially fatal heart condition associated with its use. (Reference: (SAUCW) Notification, , , 20 June 1999)
BRA	**Jul 2000**	Withdrawn from the Brazilian market due to the increased risk of producing cardiac arrhythmias.
CHL	**Mar 2001**	The Public Health Institute of Chile has banned the use of terfenadine due to serious cardiotoxic effects reported in conjunction with other drugs. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)
ARG	**19 Aug 2003**	The Food, Drug and Medical Devices agency in Argentina, ANMAT, has withdrawn the marketing authorization for all products containing terfenadine. This measure follows associations of life-threatening ventricular arrhythmias with terfenadine. (Reference: (ARGFDM) Communication from ANMAT, , , 19 Aug 2003)
SGP		The National Pharmaceutical Administration in the Ministry of Health has banned terfenadine because of its association with rare but serious heart problems when taken with certain drugs, including antibiotics and antifungal drugs. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000) **WHO Comment : The first clinically interesting histamine H-receptor1 antagonists were introduced in the late 1940s and early 1950s. Several H-antihistaminics have a similar cardiac effect to that seen with astemizole1 and terfenadine. Serious cardiovascular adverse reactions have been reported when used concomitantly with imidazole antifungals and macrolide antibiotics. See also under astemizole.**

Product Name **Terodiline**

C.A.S. number **15793-40-5**

Scientific and common names, and synonyms

BENZENEPROPANAMINE, N-(1,1-DIMETHYLETHYL)-ALPHA-METHYL-GAMMA-PHENYL-

N-TERT-BUTYL-1-METHYL-3,3-DIPHEYLPROPYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**1992**	Products containing terodiline were withdrawn from the market worldwide by the manufacturer, following reports of cardiac adverse reactions, including ventricular tachycardia, heart block and bradycardia associated with their use. (Reference: (DCCKB) Drug company communication - Kabi Pharmacia, , , 26 Sep 1991) **WHO Comment : Terodiline, an anticholinergic and calcium-channel blocking agent, was first introduced into medicine in the mid 1960s for the treatment of angina pectoris. In 1986, it was registered for the indication of urinary incontinence. In 1991, its use in urinary incontinence was reported to be associated with severe cardiac arrhythmias. This led to a temporary withdrawal in a few Member States in 1991, followed by a final withdrawal by the manufacturer in 1992.**

Product Name **Testosterone propionate (injectable)**

C.A.S. number **57-85-2**

Scientific and common names, and synonyms

ANDROST-4-EN-3-ONE, 17-(1-OXOPROPOXY)-, (17BETA)-

TESTOSTERONE PROPIONATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, low dosage forms (100mg ampoules) were banned on grounds of inadmissable promotion and misuse. Higher dosage forms (250mg ampoules) remain available for use in selected patients under medical supervision. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982) **WHO Comment : In 1982, low dosage preparations of testosterone propionate, a synthetic ester of the naturally-occurring androgen, testosterone, were prohibited in Bangladesh following their inadmissable promotion as anabolic agents for use in malnourished children. Higher dosage preparations of testosterone propionate remain available in many countries, including Bangladesh, for several highly specific but limited indications including hypogonadism and the palliative treatment of inoperable breast cancer.**

Product Name **Tetracycline (paediatric)**

C.A.S. number **60-54-8**

Scientific and common names, and synonyms

2-NAPHTHACENECARBOXAMIDE, 4-(DIMETHYLAMINO)-1,4,4A,5,5A,6,11,12A- OCTAHYDRO-3,6,10,12,12A-PENTAHYDROXY-6-METHYL-1,11-DIOXO- (4S-(4ALPHA,4AALPHA,5AALPHA,6BETA,12AALPHA))

4-(DIMETHYLAMINO)-1,4,4A,5,5A,6,11,12A-OCTAHYDRO-3,6,10,12,12A- PENTAHYDROXY-6-METHYL-1,11-DIOXO-2-NAPHTHACENECARBOXAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JOR	**1973**	The Ministry of Health withdrew syrup formulations of tetracyclines (mixtures, suspension or drops) particularly intended for pediatric use on the grounds that tetracyclines interfere with the growth of bones and teeth in infants.
PER	**1974**	The package insert and/or label for this product requires a warning that its use may be dangerous in nursing infants, children under 3 years of age and pregnant women, due to the drug's well known effects on bone formation.
ITA	**1975**	Preparations for rectal use have been withdrawn from the market owing to their non-constant absorption. Since 1979, labels of concentrated liquid preparations have warned about possible dischromic effects on tooth enamel.
PHL	**1978**	Preparations containing chlortetracycline, oxytetracycline, tetracycline, demeclocycline, rolitetracycline, methacycline, doxycycline, minocycline, and other tetracycline derivatives in the form of syrup (mixture or suspension) or drops particularly intended for pediatric use are no longer acceptable. (Reference: (PHADO) Administrative Order, 342, , 1978)
USA	**2 Jan 1979**	Tetracycline drops intended for pediatric use have been withdrawn from the market. Doctors have been advised that liquid preparations of tetracycline and its congeners should not be administered to pregnant women or children under 9 years of age. (Reference: (FEREAC) Federal Register, 43(211), 50676, 1978)
GHA	**1980**	Paediatric preparations have been banned.
ARE	**9 Jun 1981**	Tetracyclines in syrups and paediatric drops are banned. (Reference: (UAEMD) Ministry of Health Decree, No.694, , 1981)

Product Name **Tetracycline (paediatric)**

C.A.S. number **60-54-8**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, tetracycline syrups have been banned as they are harmful to children and pregnant mothers; they disturb bone growth of children up to 12 years of age and discolour teeth. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)
SDN	**1982**	The Ministry of Health no longer allows registration of tetracycline syrups. Syrups will only be available to government health units for specific treatment.
IND	**1983**	Liquid oral dosage preparations have been prohibited for manufacture and sale for reasons of health risks associated with use and/or questionable therapeutic value. (Reference: (GAZIE) The Gazette of India: Extraordinary, II-3i, , 23 July 1986)
OMN	**Sep 1985**	Tetracycline pediatric suspension has been prohibited for import, selling and marketing.
PAK	**1988**	Products containing tetracyclines for paediatric use, including tetracycline, oxytetracycline and doxycycline were withdrawn. (Reference: (PAKMH) Ministry of Health, Special Education and Social Welfare, , , Aug 1988)
CHL	**31 Aug 1990**	All products containing tetracycline, demeclocycline, doxycycline, metacycline, exytetracycline or other tetracycline derivatives were required to bear a warning stating that they should not be administered to children under 8 years of age, or to pregnant or lactating women. (Reference: (BMCHL) Boletin Informativo Sobre Medicamentos, 8(1), 14, 1991)
NPL	**1991**	Liquid oral preparations containing tetracycline, and intended for the treatment of diarrhoea in children, were banned. (Reference: (NPLDDA) Communication from the Department of Drug Administration, , , 27 Feb 1992)
AUS		The Australian Drug Evaluation Committee has recommended that all pediatric formulations of tetracyclines should be withdrawn from the market in view of their propensity to stain teeth and retard bone growth. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, No.71, ,)
BEL		Preparations containing tetracyclines intended for internal use must carry a warning stating that the preparation should not be administered to children under eight years of age or to pregnant women after the fourth month of pregnancy except on medical advice.
NZL		Pediatric preparations have been voluntarily withdrawn.
SAU		Following reports indicating interference with bone growth and teeth in infants the use of all tetracycline preparations is prohibited in pregnant women and children below twelve years of age.
		WHO Comment : The first tetracycline antibiotic, chlortetracycline, was introduced in 1948 and subsequently several semisynthetic derivatives have been used as antibacterial, antiamoebic and antirickettsial agents. All tetracyclines accumulate in the developing bones and teeth of the foetus and young children which can result in retarded bone growth and dental staining. Preparations intended specifically for children have been withdrawn in some countries, whereas in others warnings are required on the label advising against administration of tetracyclines to young children and pregnant women. Non-paediatric dosage forms of tetracycline remain in the WHO Model List of Essential Drugs. **(Reference: (WHTAC1) The Use of Essential Drugs, 2nd Report of the WHO Expert Committee, 722, , 1985)**

Product Name **Thalidomide**

Legislative or regulation action

C.A.S. number **50-35-1**

Scientific and common names, and synonyms

?-(N-PHTHALIMIDO)GLUTARIMIDE

ALPHA-(N-PHTHALIMIDO)GLUTARIMIDE

N-(2,6-DIOXO-3-PIPERIDYL)PHTHALIMIDE

1H-ISOINDOLE-1,3(2H)-DIONE, 2-(2,6-DIOXO-3-PIPERIDINYL)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**1963**	Pharmaceutical preparations containing thalidomide were prohibited in 1963. In 1983 they were reintroduced for limited use in special circumstances.
FIN	**1963**	Prohibited due to its well-known teratogenic effects.
IDN	**1963**	Prohibited for importation, production, sale and distribution by the Ministry of Health.
CAN	**Jul 1984**	Total ban under S.15 of the Food and Drugs Act has been revoked. Thalidomide is now available on a limited basis, upon specific authorization for emergency purposes only.
BRA	**4 Jul 1994**	The Ministry of Health has issued an Order prohibiting the prescription of thalidomide for women of childbearing age. This action has been taken in consideration of the risks of teratogenic effects of thalidomide associated with indiscriminate use of the product. (Reference: (BRASVS) Secretaria de Vigilancia Sanitaria, Portaria 63, , 04 July 1994)
BRA	**04 Jul 1994**	The Ministry of Health has issued an Order prohibiting the prescription of thalidomide for women of childbearing age. This action has been taken in consideration of the risks of teratogenic effects of thalidomide associated with indiscriminate use of the product. (Reference: (BRACVS) Centro de Vigilancia Sanitaria, 63, , 04 July 1994)
ARG	**Jul 1996**	The Ministry of Health and Social Affairs has restricted the use of thalidomide to ensure that it is not accessible to pregnant women. (Reference: (ARGANM) Communication, , , 19 July 1996)
DNK		Prohibited for import, production, sale and distribution by the Ministry of Health.
IND		Prohibited for import due to the lack of substantial evidence of safety and/or efficacy, except for specially authorized use in leprosy patients in leprosy hospitals excluding women patients of childbearing age.
NZL		This product is a controlled drug and is available on a very restricted basis.
SGP		Banned for importation.
VEN		Not approved for use and/or sale.
		WHO Comment : Notwithstanding the highly potent teratogenic action of thalidomide, this drug retains a place in the treatment of reactional lepromatous leprosy and several serious dermatological conditions refractory to other treatment. In many countries, the competent authorities have granted exemption from licensing requirements to enable doctors to obtain limited supplies of thalidomide under strictly controlled circumstances for use in named patients. Arrangements have also been made by some national drug regulatory authorities for thalidomide to be used in institutions concerned with the treatment of leprosy.

Product Name **Thenalidine**

C.A.S. number **86-12-4**

Scientific and common names, and synonyms

THENOPHENOPIPERIDINE

1-METHYL-4-N-2-THENYLANILINOPIPERIDINE

Legislative or regulative action

Legislative or regulation action

Product Name **Thenalidine**

C.A.S. number **86-12-4**

Country	Effective Date	Description of action taken Grounds for decision
USA	**17 Jul 1958**	Thenalidine was withdrawn in the United States of America after four cases of severe neutropenia, two of which were fatal, were reported in patients treated continuously over periods of several months.
GBR	**1961**	Thenalidine was withdrawn in the United States of America after four cases of severe neutropenia, two of which were fatal, were reported in patients treated continuously over periods of several months. It was subsequently withdrawn in the United Kingdom.
SWE	**Apr 1976**	Withdrawn following reports of neutropenia associated with its use.
FRA	**16 Jun 1978**	Voluntarily withdrawn following reports of neutropenia associated with its use.
CYP	**1980**	Products containing thenalidine were withdrawn following reports of neutropenia associated with their use.
AUS		Voluntarily withdrawn following reports of neutropenia associated with its use.
FIN		Voluntarily withdrawn following reports of neutropenia associated with its use.
NOR		Withdrawn following reports of neutropenia associated with its use.
VEN		Not approved for use and/or sale.
		WHO Comment : Thenalidine, a piperidine antihistamine, was introduced in 1953 for the management of dermatologic and allergic conditions. By 1958 its use had been associated with cases of severe neutropenia, two of them fatal, which led to its withdrawal in the United States of America and subsequently in the United Kingdom. Over the next fifteen years, continued reports of its association with cases of neutropenia resulted in further withdrawals in many countries. It is apparently still available, however, in some combination products. **(Reference: (WHODI) WHO Drug Information, 1, 5, 1979)**

Product Name **Thiomersal**

C.A.S. number **56-64-8**

Scientific and common names, and synonyms

ETHYL(2-MERCAPTOBENZOATO-S)MERCURY

MERCURY, ETHYL(4-MERCAPTOBENZOATO-S)-, SODIUM SALT

THIMEROSAL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS		The Drug Control Authority in Malaysia has directed manufacturers to discontinue the use of thiomersal as a preservative in vaccines and to replace it with other permitted preservatives.
MYS	**Sep 1995**	The Drug Control Authority has rejected an application for registration of contact lens products and ophthalmological preparations containing thiomersal on the grounds that mercury is absorbed from such preparations in significant amounts. Thiomersal can also cause sensitization after repeated use. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 9(3): 3, , Sep 1995)
BRA	**Jun 2001**	Products containing thiomersal are prohibited except those intended for vaccine conservation. (Reference: (BRARES) Resolucao n., 528/ANVISA, , 06 Aug 2001)

Product Name **Tianeptine sodium**

Legislative or regulation action

C.A.S. number **30123-17-2**

Scientific and common names, and synonyms

TIANEPTINE. 7-[(3-CHLORO-6,11?DIHYDRO-6-METHYLDIBENZO[C,F][1,2] THIAZEPIN-11-YL)AMINO]HEPTANOIC ACID S,S DIOXIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BHR		The Drug Control Directorate has classified tianeptine sodium under the 'special-drugs-under-controlled prescriptions' category due to increasing reports of misuse and abuse by patients.
SGP		The National Pharmaceutical Administration in the Ministry of Health has restricted the use of tianeptine sodium to psychiatrists due to its abuse potential. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Tiaprofenic acid**

C.A.S. number **33005-95-7**

Scientific and common names, and synonyms

5-BENZOYL-?-METHYL-2-THIOPHENEACETIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Aug 1994**	In view of the high number of reports of cystitis, the Committee on Safety of Medicines recommends that tiaprofenic acid should not be given to patients with pre-existing urinary tract disorders and that if urinary tract symptoms develop tiaprofenic acid should be stopped. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, 20: 11, , Aug 1994)
DEU	**Oct 1994**	The manufacturer of the nonsteroidal anti-inflammatory agent, tiaprofenic acid revised the product information to include a reference to the potential of this product to induce cystitis, which is initially reversible on discontinuation of treatment and to stress the need to interrupt therapy with tiaprofenic acid as soon as urinary disturbances are reported by the patient. (Reference: (DEUPZ) Pharmazeutische Zeitung, 139(40): 3401, , 1994)
MYS	**Dec 1995**	In view of reports from other countries of cystitis in patients receiving the nonsteroidal anti-inflammatory agent, tiaprofenic acid, the Drug Control Authority has decided to revise the product information to include the following precautionary statement: Urinary symptoms (bladder pain, dysuria and frequency), haematuria or cystitis may occur. In certain exceptional cases, the symptoms have become severe on continued treatment. Should urinary symptoms occur, treatment with tiaprofenic acid must be stopped. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 9(4): 2, , 1995) **WHO Comment : See comment under "Nonsteroidal anti-inflammatory agents".**

Product Name **Ticlopidine**

C.A.S. number **55142-85-3**

Scientific and common names, and synonyms

5-(O-CHLOROBENZYL)-4,5,6,7-TETRAHYDROTHIENO-(3,2-C)PYRIDINE

THIENO(3,2-C)PYRIDINE, 5-((2-CHLOROPHENYL)METHYL)-4,5,6,7-TETRAHYDRO-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1983**	Registered solely for the treatment of haemodialysis patients, with shunt complications, who are intolerant to acetylsalicylic acid. A full blood count should be made before

Product Name **Ticlopidine**

C.A.S. number **55142-85-3**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		treatment and every 14 days, then subsequently every month throughout treatment.
GRC	**1984**	Use is restricted to patients with severe renal damage who do not tolerate acetylsalicylic acid having regard to the occurrence of severe blood reactions.
ITA		Approved indications for use have been restricted to antithrombotic therapy in haemodialysis, peripheral obliterating arteriopathy, thrombosis of the central retinal vein, maintenance of extracorporeal circulation and aortic-coronary by-pass. Haematological monitoring is advised throughout treatment. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, (3), , 1984) **WHO Comment : Ticlopidine, an inhibitor of platelet aggregation, was introduced in 1978 for use as an antithrombotic agent. By 1982 its use had been associated with cases of agranulocytosis, severe leucopenia and impaired haemostasis. The drug remains available in most countries in which it was approved with appropriate warnings in the product information.**

Product Name **Tienilic acid**

C.A.S. number **40180-04-9**

Scientific and common names, and synonyms

ACETIC ACID, (2,3-DICHLORO-4-(2-THIENYLCARBONYL)PHENOXY)-

TICRYNAFEN

(2,3-DICHLORO-4-(2-THIENYLCARBONYL)PHENOXY)-ACETIC ACID

(2,3-DICHLORO-4-(2-THENOYL)-PHENOXY)ACETIC ACID

4-(2-THENOYL)-2,3-DICHLOROPHENOXYACETIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1980**	The Ministry of Health and Welfare has withdrawn this product from domestic use. (Reference: (GRAGA) Ministry of Health Decision, 12946, , Dec 1980)
PHL	**Jan 1980**	Withdrawn by the manufacturer after reports from other countries that prolonged use in some patients resulted in deaths due to liver dysfunction.
USA	**30 Jan 1980**	Withdrawn from the market following reports of liver toxicity.
BRA	**31 Jan 1980**	Products containing tienilic acid are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, (01), , Nov 1980)
DEU	**Dec 1980**	Voluntarily withdrawn from the market following cases of hepatic failure some of which were fatal.
PAN	**10 Apr 1981**	The Ministry of Health has banned the sale of pharmaceuticals and cosmetics containing tienilic acid. (Reference: (PANMR) Ministry of Health Resolution, 28, , Apr 1981)
FRA	**1991**	Voluntarily withdrawn from the market by the manufacturer, following reports of hepatitis associated with its use. (Reference: (FRARP) La Revue Prescrire, 12(114), 28, 1992)
IND		Not approved for marketing after withdrawal in the United States following reports of liver toxicity.
VEN		Not approved for use and/or sale.

Product Name **Tienilic acid**

C.A.S. number **40180-04-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Tienilic acid, a diuretic agent with uricosuric and antihypertensive activity, was introduced in 1976. By 1979 its use had been associated with cases of hepatic toxicity, some of which were fatal, which led to the withdrawal of the drug in most countries in which it was marketed. In France, however, precautions regarding the use of tienilic acid were issued by the Pharmacovigilance Commission and the drug remained available for another decade. In 1991, it was eventually also withdrawn there since cases of hepatitis, some of which were fulminant, had continued to occur.

Product Name **Tilbroquinol**

C.A.S. number **7175-09-9**

Scientific and common names, and synonyms

7-BROMO-5-METHYL-8-QUINOLINOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jul 1997**	The Agence du Médicament has decided to suspend the marketing authorization for tilbroquinol (Intetrix® P) and batches were recalled on 5 July 1997. This decision was reached in view of the absence of efficacy data for the treatment of infectious diarrhoeas and because of the risk of liver toxicity. [See also tilbroquinol/tiliquinol in Combination products]. (Reference: (FRAAMI) Infofax - Pharmacovigilance, , , 04 July 1997)
MAR	**Nov 1997**	The Direction du médicament et de la pharmacie has suspended marketing authorization for the paediatric formulation of tilbroquinol and the therapeutic indications for the adult formulation were restricted to the treatment of intestinal amoebiasis. (Reference: (MARDMP) Letter to WHO, , , 08 Sep 2000)
FRA	**1999**	The Agence du Médicament has withdrawn the antiprotozoal, tilbroquinol from the market because the hepatoxicity of the drug outweighs the potential benefit. (Reference: (FRADRA) Décision de retrait de l'autorisation de mise sur le marché d'Intetrix P granulés, , , 05 July 1999)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market products containing tilbroquinol and a combination product containing tilbroquinol/tiliquinol because of a risk of hepatotoxicity associated with their use. (Reference: (SAUCW) Notification, , , 20 June 1999)

Product Name **Tocainide**

C.A.S. number **41708-72-9**

Scientific and common names, and synonyms

PROPANAMIDE, 2-AMINO-N-(2,6-DIMETHYLPHENYL)-

2-AMINO-2',6'-PROPIONOXYLIDIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**1985**	Use of tocainide has been limited to named patients under the supervision of a consultant, having regard to cases of agranulocytosis associated with its use.

Product Name **Tocainide**

C.A.S. number **41708-72-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (IRDAB) National Drugs Advisory Board Annual Report, , , 1985)
NLD	**1986**	Having regard to reports of blood dyscrasias associated with its use, indications are restricted to the symptomatic treatment of ventricular dysrhythmias when other treatments fail or are contraindicated. (Reference: (NPHWB) Pharmaceutisch Weekblad, 121, 167, 1986)
		WHO Comment : Tocainide, an antidysrhythmic agent, was introduced in 1981 for the treatment of ventricular dysrhythmias. By 1984 its use was associated with cases of agranulocytosis, aplastic anaemia and thrombocytopenia, some of which were fatal. This led some regulatory authorities to restrict the indications for its use. The major manufacturer has subsequently restricted its use on a worldwide basis to the treatment of symptomatic ventricular dysrhythmias not responding to other therapy, or when other therapy is contraindicated.

Product Name **Tolcapone**

C.A.S. number **134308-13-7**

Scientific and common names, and synonyms

3,4-DIHYDROXY-5-NITROPHENYL (4-METHYLPHENYL)METAHANONE

3,4-DIHYDROXY-4?-METHYL-5 NITROBENZOPHENONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
EME	**Nov 1998**	The European Agency for the Evaluation of Medicinal Products has recommended the suspension of the marketing authorization for tolcapone. This follows several reports of severe and unpredictable hepatic reactions including fatal fulminant hepatitis. (Reference: (EMEAPR) EMEA Press Release, , , 17 Nov 1998)
GBR	**Nov 1998**	The manufacturer of the antiparkinsonism drug, tolcapone has voluntarily withdrawn it from the market. This follows a review of the hepatotoxic effects by the European Committee for Proprietary Medicinal Products (CPMP) which found that the overall balance of risks and benefit was no longer favourable. . (Reference: (GBRMCA) Communication to WHO, , , 30 Aug 2000)
ISL	**Nov 1998**	The State Committee on Pharmaceuticals in Iceland withdrew the marketing authorization for tolcapone due to serious adverse effects. Since then the product has been available to specialist neurologists for the treatment of severe cases of Parkinson?s disease. (Reference: (ISLSCP) Communication to WHO, , , 17 Oct 2000)
LTH	**Dec 1998**	The State Medicines Control Agency has withdrawn from the market tablets of tolcapone. (Reference: (LTHMCA) Order of State Medicines Control Agency, No. 123, , 15 Dec 1998)
AUS	**Feb 1999**	Following overseas reports of serious and unpredictable hepatotoxicity associated with the use of the catechol-O-methyl transferase inhibitor, tolcapone (TamarR), including 3 fatalities, its registration has been withdrawn in Australia. (Reference: (AUSADR) Australian Adverse Drug Reactions Bulletin, 18(1), , Feb 1999)
BGR	**Apr 1999**	The Bulgarian Drug Agency in the Ministry of Health withdrew the antiparkisonism agent, tolcapone because of serious adverse reactions worldwide. (Reference: (BGRBDA) Communication to WHO, , ,)
SGP		The National Pharmaceutical Administration in the Ministry of Health has restricted the use of tolcapone to neurologists as there are concerns over reports of severe

Product Name **Tolcapone**

C.A.S. number **134308-13-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		hepatotoxicity associated with the use of the drug. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)

Product Name **Tolrestat**

C.A.S. number **82964-04-3**

Scientific and common names, and synonyms

GLYCINE, N-[[6-METHOXY-5-(TRIFLUOROMETHYL)-1-NAPHTHALENYL]THIOXOMETHYL]-N-METHYL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	Nov 1996	In October 1996 the manufacturer withdrew tolrestat from the market worldwide following a case of hepatic necrosis and death notified to the National Pharmacovigilance System in Argentina in 1995 and of two additional deaths from hepatic necrosis associated with the use of tolrestat in Canada and Italy. (Reference: (LANCET) Foppiano M & Lombardo G. Worldwide pharmacovigilance systems and tolrestat withdrawal, Lancet 349, p.399 , 08 Feb 1997) (Reference: (ARGANM) Communication, , , 05 Nov 1996)

Product Name **Tramadol**

C.A.S. number **27203-92-5**

Scientific and common names, and synonyms

CYCLOHEXANOL,2-((DIMETHYLAMINO)METHYL))-1-(3-METHOXYPHENYL)-, TRANS-(+/-)

CG-315

(+/-)-TRANS 2-((DIMETHYLAMINO)METHYL)-1-(M-METHOXYPHENYL)CYCLOHEXANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	1 Oct 1985	The drug substance and finished preparations are subject to control at national level analogous to that provided by Schedules I and III of the 1961 Single Convention on Narcotic Drugs.
BHR	2000	The Ministry of Health has restricted the prescription of medicines containing tramadol as controlled medicines that should be dispensed only on special prescriptions issued by the Directorate of Pharmacy and Drug Control at the Ministry of Health with effect from 2 May 2000. (Reference: (BHRCW) Communication with WHO, , , 27 June 2000)
MUS	Oct 2000	The Ministry of Health and Quality of Life has moved the product tramadol from Prescription-only status to Psychotropic in Schedule III of the New Dangerous Drugs Act based on 1988 Convention Classification. This is because of widespread 1988 Convention Classification. This is because of widespread abuse resulting from unsupervised sales in pharmacies. (Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)

Product Name **Tranylcypromine**

C.A.S. number **155-09-9**

Legislative or regulation action

Product Name **Tranylcypromine**

C.A.S. number **155-09-9**

Scientific and common names, and synonyms

CYCLOPROPANAMINE, 2-PHENYL-, TRANS-(+/-)-

TRANSAMINE SULPHATE

(+/-)-TRANS-2-PHENYLCYCLOPROPYLAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**1964**	Withdrawn from the market by the Ministry of Health.
BEL	**1965**	The Ministry of Health has withdrawn drugs containing tranylcypromine.
SAU		Products with this ingredient are now under strict control.
VEN		Not approved for use and/or sale.
		WHO Comment : Tranylcypromine, a monoamine oxidase inhibitor (MAOI), was introduced in 1961 for the treatment of depressive illness. By 1964 its use had been associated with transient hypertensive crises and other adverse effects when taken together with certain cheeses and other foods containing tyramine. This led to the withdrawal of the drug in several countries and the suspension of marketing on a worldwide basis by the major manufacturer pending review of these adverse reactions. Subsequently, in response to requests from the medical profession, tranylcypromine was resubmitted for registration with appropriate warnings in the product information and it is now marketed in more than 30 countries.

Product Name **Trazodone**

C.A.S. number **19794-93-5**

Scientific and common names, and synonyms

1,2,4-TRIAZOLO(4,3-A)PYRIDIN-3(2H)-ONE, 2-(3-(4-(3-CHLOROPHENYL)-1- PIPERAZINYL)PROPYL)-

2-(3-(4-(M-CHLOROPHENYL)-1-PIPERAZINYL)PROPYL)-S-TRIAZOLO(4,3-A) PYRIDIN-3(2H)-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1985**	Not approved for registration because the results of a two-year study in rats gave rise to suspicion of a carcinogenic effect, and carcinogenic studies in another animal species were not submitted. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, (1), , 1985)
		WHO Comment : Trazodone, an antidepressant indicated for the treatment of a wide range of depressive illness, was introduced in 1973. Although it is registered for use in many countries with highly evolved regulatory authorities, approval for registration was not granted in Norway because of a suspicion of carcinogenicity in a two-year rat study.

Product Name **Tretinoin**

C.A.S. number **302-79-4**

Scientific and common names, and synonyms

ALL-TRANS-RETINOIC ACID

RETINOIC ACID

Legislative or regulative action

Legislative or regulation action

Product Name **Tretinoin**

C.A.S. number **302-79-4**

Country	Effective Date	Description of action taken Grounds for decision
OMN	**24 Dec 1985**	Having regard to its teratogenicity, tretinoin may only be used under the supervision and control of a hospital dermatologist. (Reference: (OMNMH) Ministry of Health, No.5, , 1985)
DEU	**29 Mar 1988**	Tretinoin may no longer be included as an ingredient in cosmetic products, having regard to its teratogenic potential. (Reference: (DAZ) Deutsche Apotheker Zeitung, 128(21), 35, 1988)
NZL	**4 Nov 1993**	Tretinoin in topical preparations for the treatment of acne has been reclassified from Restricted Medicine (an OTC classification, but may only be sold personally by a pharmacist) to Prescription Medicine because of its teratogenic potential. (Reference: (NZLPU) Prescriber Update, No.5, , May 1994)
DEU	**28 Jul 1994**	The Federal Institute for Drugs and Medical Devices has revised the product information for topical formulations containing the retinoid, tretinoin. The section on toxicological properties will state that in animal experiments teratogenicity has been demonstrated both after systemic and local administration. As a consequence, the product is now contraindicated during pregnancy. (Reference: (DEUPZ) Pharmazeutische Zeitung, 139(30): 2379, , 1994)
		WHO Comment : Tretinoin, a retinol derivative, was introduced in 1973 exclusively for the topical treatment of severe acne. Preparations of tretinoin are indicated for topical use only since oral administration has been associated with risk of toxicity from hypervitaminosis-A and subsequently of teratogenicity.

Product Name **Triacetyldiphenolisatin**

C.A.S. number **18869-73-3**

Scientific and common names, and synonyms

PHENISATINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1976**	Withdrawn following a review of published cases of acute and chronic liver disease. The action was consonant with decisions previously taken in a number of countries including Australia and the United States. Some other national authorities have chosen to place products containing this compound under prescription control.
ITA	**1976**	Preparations for oral, rectal and topical use have been withdrawn from the market due to the risk of sensitization.
CAN	**1978**	All preparations containing this substance were withdrawn from sale in Canada. (Reference: (CANGZ) Canada Gazette, , , May 1978)
CYP		Products containing triacetyldiphenolisatin have been withdrawn having regard to the risk of liver damage in patients receiving this drug.
NZL		Voluntarily withdrawn from the market.
VEN		Not approved for use and/or sale.
		WHO Comment : Triacetyldiphenolisatin is a derivative of oxyphenisatine. See WHO comment for oxyphenisatine acetate.

Product Name **Triazolam**

C.A.S. number **28911-01-5**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Triazolam**

C.A.S. number **28911-01-5**

Scientific and common names, and synonyms

8-CHLORO-6-(O-CHLOROPHENYL)-1-METHYL-4H-S-TRIAZOLO(4,3-A)(1,4) BENZODIAZEPINE

CLORAZOLAM

4H-(1,2,4)TRIAZOLO(4,3-A)(1,4)BENZODIAZEPINE, 8-CHLORO-6-(2- CHLOROPHENYL)-1-METHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MUS	**9 Mar 1982**	Under the Pharmacy and Poisons (Prohibitions of Harmful Drugs) Regulations, this drug is deemed "harmful" by the Ministry of Health and is prohibited for import, manufacture, storage, distribution, sale, possession, use, export or other transaction. (Reference: (MPPHD) Pharmacy & Poisons (Prohibitions of Harmful Drugs) Regulations, , , Mar 1982)
AUS	**11 Apr 1986**	Tablets containing 0.50mg and 0.25mg triazolam were not approved by the Australian Drug Evaluation Committee, having regard to the risk of adverse effects due to inappropriate use. Tablets containing 0.125mg triazolam were approved for the treatment of insomnia. (Reference: (AUDEC) Report of the Australian Drug Evaluation Committee, 123, , Apr 1986)
ITA	**9 Mar 1987**	The marketing authorization of tablets containing 0.50 mg triazolam was withdrawn by Ministerial Decree on the basis of evidence that use of 0.50 mg tablets had caused incidents of anterograde amnesia, mental confusion and behavioural disorders. The package insert must state that the recommended dose of 0.25 mg should only be exceeded in very exceptional cases to treat particularly resistant insomnia. (Reference: (ITAMD) Ministerial Decree, No.7639/R, , Mar 1987)
DEU	**Apr 1988**	The Federal Health Office has decided to withdraw the registration of tablets containing 0.5 mg triazolam and the indications for tablets containing 0.25 mg have been restricted to short-term treatment of sleep disturbances.
CHL	**14 Mar 1989**	Products containing 0.125 mg and 0.250 mg triazolam have been subjected to prescription control and must carry the following warning: "This product may only be administered under strict medical control and supervision." These measures were taken on the grounds of reports of serious adverse psychiatric effects. (Reference: (CHLMS) Letter to WHO from the Ministerio de Salud, , , Sep 1990) (Reference: (BMCHL) Boletin Informativo Sobre Medicamentos, 6(1), 13, 1989)
@EC	**16 Oct 1991**	The Committee for Proprietary Medicinal Products recommended that the indications for products containing triazolam should be restricted to the treatment of severe disabling sleeping disorders or to insomnia causing extreme distress; duration of treatment should not exceed 2-3 weeks; the lowest effective dose should be used and a dose of 0.250 mg should not be exceeded; for the elderly, debilitated patients and patients with disturbed liver/kidney function, the dose should not exceed 0.125 mg; the compound should not be administered to patients with major psychiatric disorders; packs of not more than seven tablets should be made available. (Reference: (CPMPPS) Position Statement, , , Oct 1991)
ESP	**Dec 1991**	The marketing authorization for tablets containing 0.250 mg triazolam was suspended by the manufacturer, because of association with serious psychiatric adverse reactions, particularly anterograde amnesia.
FRA	**30 Dec 1991**	The marketing authorization for tablets containing 0.250 mg triazolam was suspended, because this high dosage formulation was considered to present risks, especially amnesia, that outweigh the therapeutic benefits. Duration of treatment for tablets containing 0.125 mg was restricted to two weeks and the package size was limited to seven tablets. Tablets containing 0.5 mg triazolam had been withdrawn in the late 1980s. (Reference: (FRAMS) Ministry of Social Affairs and Integration, , , 30 Dec 1991)
PAK	**Jan 1992**	The Drug Registration Board decided that triazolam tablets should bear a warning that they are contraindicated in patients with a major psychiatric disorder.

Product Name **Triazolam**

C.A.S. number **28911-01-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (PAKDI) Pakistan Drug Information, 3, , Jan 1992)
NOR	**Feb 1992**	Following their initial suspension from the market on 4 October 1991, products containing triazolam were withdrawn because of their association with serious psychiatric adverse effects, including memory disturbances, anxiety, depression and agressivity. (Reference: (NORMCA) Norwegian Medicines Control Authority, , , Oct 1992)
JPN	**Mar 1992**	The Pharmaceutical Affairs Bureau decided to reduce the recommended dosage regimen for triazolam. It is proposed that treatment should be initiated at a nightly dose of 0.125 mg or less, and that under no circumstances should the dose exceed 0.5 mg. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, 113, , Mar 1992)
BRA	**Jun 1992**	The Centre for Pharmacovigilance of the State of Sao Paulo prohibited the sale and use of pharmaceutical products containing triazolam. The National Secretariat for Pharmacovigilance suspended indefinitely the manufacture and marketing of such products with effect from 5 June 1992. (Reference: (BRAPT) Portaria do Servico Publico Federal, 59, , June 1992) (Reference: (BRADMS) Diario Oficial Ministerio da Saude, , , June 1992) (Reference: (BRACVS) Centro de Vigilancia Sanitaria, , , June 1992)
CYP	**23 Oct 1992**	The Drug Council withdrew the marketing licence for tablets containing 0.5 mg of triazolam and revised the product information for lower dose formulations. These products are now indicated exclusively for sleeping disorders that are "severe, disabling or cause extreme distress". (Reference: (CYPPS) Pharmaceutical Services, Ministry of Health, , , 23 Oct 1992)
OMN	**Nov 1992**	The Directorate General of Pharmaceutical Affairs and Drug Control has decided to suspend the sale of pharmaceutical products containing triazolam as a precautionary measure. This decision will be reviewed when further information concerning the safety of triazolam is available. (Reference: (OMNDGP) Directorate General of Phamaceutical Affairs, , , Nov 1992)
FIN	**13 Jan 1993**	Following the initial suspension of registration of products containing triazolam pending a reassessment of their benefits and risks, these products were reintroduced to the market with restricted indications. Tablets of 0.125mg and 0.25mg and buccal tablets 0.2mg only are available. The indications are restricted to transient but disabling short-term insomnia. (Reference: (FINAWH) National Agency for Welfare and Health, , , 13 Jan 1993)
GBR	**09 Jun 1993**	Products containing triazolam were withdrawn in 1991 because of their association with serious, though reversible psychiatric adverse effects, particularly loss of memory and depression. After several appeals to this decision, the United Kingdom Licensing Authority decided to uphold its decision to revoke the licence of all products containing triazolam. (Reference: (DCCUJC) Upjohn News Release, , , 09 June 1993) **WHO Comment : Triazolam, a benzodiazepine derivative with sedative and hypnotic activity, was introduced in 1978 for themanagement of insomnia. It is controlled under Schedule IV of the 1971 Convention of Psychotropic Substances. Concern regarding the psychotropic effects of triazolam was first raised in the Netherlands in 1979 when this compound was suspended for sale and subsequently withdrawn by the Committee for the Evaluation of Medicines on the basis of reports of a reversible complex of symptoms including paranoia, depersonalization, nightmares, suicidal tendency and hyperaesthesia in patients receiving the drug. The basis for this decision was later successfully contested by the manufacturer and the drug was reregistered in early 1990 with a revised product information. However, concern was regenerated elsewhere that higher doses are associated with an unacceptable incidence of unwanted effects and the manufacturer has eventually withdrawn 0.5 mg tablets on a worldwide basis. In**

Product Name **Triazolam**

C.A.S. number **28911-01-5**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		1991 the issue of the safety of triazolam was again reopened by reports of retrograde amnesia and depression among patients taking the decreased recommended dosages. The product information has been revised by the United States FDA to include more rigorous cautions regarding dosage. In the Member States of the European Communities the products have been suspended pending further review by the EC Committee on Proprietary Medicinal Products. **(Reference: (UNCPS4) United Nations Convention on Psychotropic Substances (IV), , , 1971)**

Product Name **Trimipramine**

C.A.S. number **739-71-9**

Scientific and common names, and synonyms

DIMETHYL-{3-(3-(10,11-DIHYDRO-5H-DIHENZ[B,F]AZEPIN-5-YL-2-METHYL)PROPYL}AMINE

TRIMEPRIMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1992**	The Medicines Control Authority has decided that the 50 mg tablet formulation of trimipramine may be prescribed only in hospitals and specialized clinics because of the toxic potential of these products and the risk of overdosage and suicide with the high dose formulla. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 9, 1992) **WHO Comment : Trimipramine, a tricyclic antidepressant was introduced in 1961 for the management of endogenous depression. Much of the adverse effects are caused by its antimuscarinic actions. These include dry mouth, cardiac arrhythmias, central nervous system disturbances, blood disorders and risk of suicide. The risk of suicide and dangers related to overdosage led Norwegian Medicines Control Authority to put the higher strength formulation under prescribing restriction in 1992. The risk of death following overdosage is apparently higher for products containing tricyclic compounds as compared with nontricyclic products.**

Product Name **Troglitazone**

C.A.S. number **97322-87-7**

Scientific and common names, and synonyms

(±)-ALL-RAC-5-[P-[(6-HYDROXY-2,5,7,8-TETRA-METHYL-2-CHROMANYL)METHOXY]BENZYL]-2,4-THIAZOLIDINEDIONE

2,4-THIAZOLIDINEDIONE, 5-[[4-[3,4-DIHYDRO-6-HYDROXY-2,5,7,8-TETRAMETHYL-2H-BENZOPYRAN-2-YL)METHOXY]-PHENYL]METHYL]-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Dec 1997**	In relation with hepatic reactions including cases of severe hepatocellular damage, hepatic necrosis and hepatic failure, troglitazone has now been voluntarily withdrawn from the UK by the companies concerned. (Reference: (GBRMCA) Communication to WHO, , , 01 Dec 1997)
JPN	**Dec 1997**	The product information for troglitazone has been revised to include a warning about

Product Name **Troglitazone**

C.A.S. number **97322-87-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		significant hepatic dysfunction and doctors have been required to monitor liver function of patients periodically (at least once a month. (Reference: (JPNPMB) Communication, , , 01 Dec 1997)
USA	**Dec 1997**	The FDA has issued new advice about the use of troglitazone. Patients taking troglitazone should be monitored at least once a month for signs of injury to the liver during the first six months of treatment, and periodically thereafter. In addition, warning information about potential liver toxicity will be more prominently featured in the drug's labelling. (Reference: (FDATP) Food and Drug Administration Talk Paper, T97-61, , 01 Dec 1997)
JAM	**2 Feb 1998**	The Ministry of Health, Standards and Regulation did not approve registration of the antidiabetic agent troglitazone (Rezulin) due its hepatotoxicity. (Reference: (JAMMHS) Communication to WHO, , , 26 Sep 2000)
USA	**Jun 1999**	The FDA and the manufacturer of troglitazone (RezulinR: Parke-Davis) - a drug used to treat type 2 diabetes mellitus (non-insulin dependent diabetes mellitus, or adult onset diabetes) has notified significant new changes to the labelling and recommended uses for this product. These changes are being made because new safety information (i.e., further evidence of serious and sometimes fatal liver injury in patients treated with troglitazone) indicates that its use should be limited to patients not adequately controlled by other therapy and should not be used as initial single agent therapy in the treatment of type 2 diabetes. The labelling changes also include recommendations for more extensive monitoring of liver function in patients using troglitazone. (Reference: (FDATP) Food and Drug Administration Talk Paper, T99-28, , 16 June 1999)
PER	**May 2000**	La Direcciòn General de Medicamentos, Insumos y Drogas (DIGEMID) of the Ministry of Health has communicated to health professionals that Warner Lambert Peru S.A. has voluntarily withdrawn the antidiabetic agent troglitazone from the market because of severe hepatic adverse effects associated with the use of this medicine. (Reference: (PERDGM) Alerta DIGEMID, No. 6-2000, , 26 May 2000)
CHL	**Oct 2000**	Use in formulations has been banned by the Public Health Institute of Chile; the marketing authorization has been cancelled. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)

Product Name **Trolamine**

C.A.S. number **102-71-6**

Scientific and common names, and synonyms

ETHANOL, 2,2',2'-NITRILOTRIS-

TRIETHANOLAMINE

2,2',2'-NITRILOTRIETHANOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**30 Jun 1992**	Trolamine and its salts can no longer be contained in products intended for oral use, because under certain circumstances this emulsifying agent can be concerted in the stomach into carcinogenic N-nitrosamines. In products for external and parenteral use trolamine may still be used, but in strictly limited amounts. (Reference: (CHBCM) Bulletin Mensuel, 11, 760, 1990) **WHO Comment : Trolamine is widely used as an emulsifier in combination with fatty acids in pharmaceutical and cosmetic products. The World Health**

Product Name **Trolamine**

C.A.S. number **102-71-6**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		Organization is not aware of restrictive action having been taken elsewhere.

Product Name **Trovafloxacin mesilate**

C.A.S. number **147059-72-1**

Scientific and common names, and synonyms

CP-99219-27

TROVAFLOXACIN MESYLATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SYR	**1999**	The Suprim Technical Committee and the Ministry of Health has withdrawn the licensing approval for trovafloxacin and cancelled it from the national essential drug list. (Reference: (SYRAFD) Announcement from the Directorate, 4/2/1989, , 02 Sep 1999)
EME	**May 1999**	The European Agency for the Evaluation of Medicinal Products (EMEA) has recommended that marketing authorization for products containing trovafloxacin or alatrofloxacin be suspended. This follows reports of serious adverse hepatic events. (Reference: (EMEAPS) Public statement, No.17438/99, , May 1999)
ESP	**Jun 1999**	The Spanish Medicines Agency has suspended the use of medicinal products contain the fluoroquinolone antibiotic, trovafloxacin and the intravenous formulation of the drug, alatrofloxacin (Reference: (ESPAES) Communication, , , 15 June 1999)
MAR	**Jun 1999**	The National Advisory Commission for Pharmacovigilance has decided to restrict the use of trovafloxacin and alatrofloxacin only to university hospitals under professional control and after a total examination of hepatic function. In the meantime, the Commission has launched a survey among prescribers in order to evaluate the risk/benefit balance of this product. (Reference: (MARDMP) Letter to WHO, , , 24 Aug 1999)
VTN	**Jul 1999**	The Drug Administration of Viet Nam in the Ministry of Health has not approved the registration of trovafloxacin (Trovan) solution for injection 5 mg/ml and tablet 200 mg on the basis that these products have a potential for hepatotoxicity. (Reference: (VTNMHD) Directive, 2785, QLD, 15 July 1999)
PHL	**Jan 2000**	The Department of Health Bureau of Food and Drugs have banned and withdrawn trovafloxacin since it is associated with hepatic adverse reactions. (Reference: (PHADO) Administrative Order, (1) s. 2000, , 03 Jan 2000)
SGP		The National Pharmaceutical Administration in the Ministry of Health has not approved trovafloxacin since it is associated with hepatic adverse reactions. (Reference: (SGPCW) Communication to WHO, , , 02 Aug 2000)
USA		The Food and Drug Administration has restricted the indications for products containing trovafloxacin or alatrofloxacin to patients having nosocomial infections or complicated intra-abdominal infections that are serious or life- threatening. This is due to concerns over the risks of serious liver toxicity. (Reference: (FDATP) Food and Drug Administration Talk Paper, T99-26, , June 1999)

Product Name **Trypsin**

C.A.S. number **9002-07-7**

Legislative or regulation action

Product Name **Trypsin**

C.A.S. number **9002-07-7**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SLV	**Jun 2001**	Injections for intramuscular use were not approved because of incomplete data on safety and efficacy. (Reference: (SLVCW) Communication to WHO, , , 24 Aug 2001)

Product Name **Urethane**

C.A.S. number **51-79-6**

Scientific and common names, and synonyms

CARBAMIC ACID, ETHYL ESTER

ETHYLURETHANE

ETHYL CARBAMATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BRA	**16 Sep 1963**	Products containing urethane are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.13, , Sep 1963)
CUB	**1964**	The use of urethane both as a solvent and an antineoplastic agent was prohibited due to the availability of less toxic and more effective drugs.
DNK	**1967**	Registration has been cancelled. (Reference: (UGLAAD) Ugeskrift for Laeger, 136, 2093, Sep 1974)
EGY	**1975**	Products containing urethane were withdrawn having regard to the carcinogenic potential of the drug.
JPN	**Jul 1975**	Banned as a co-solvent in drugs by Pharmaceutical Affairs Bureau, for reasons of carcinogenicity.
THA	**Dec 1975**	Use as a stabilizer or solubilizer in drug preparations is prohibited.
USA	**Mar 1977**	Withdrawn from use and/or sale by the Food and Drug Administration as an ingredient in pharmaceutical products due to its carcinogenic nature. Prohibited for export in pharmaceutical products.
ITA	**1979**	Withdrawn from the market owing to suspected carcinogenicity.
GRC	**1980**	Withdrawn as an excipient in pharmaceutical preparations.
DEU	**Jan 1982**	Registration for all products containing urethane was cancelled due to the carcinogenic potential of the drug.
VEN		Not approved for use and/or sale in pharmaceutical products.
		WHO Comment : Urethane was formerly used as an antineoplastic agent in the treatment of chronic myeloid leukaemia. It is also a mild hypnotic which has been used as an anaesthetic for veterinary practice. It has been reported to have both a carcinogenic and mutagenic potential. Although urethane continues to be used as an industrial solvent, WHO has no information to suggest that it remains commercially available in pharmaceutical preparations.

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Product Name **Vaccines for mumps, measles, and rubella**

Legislative or regulation action

Product Name **Vaccines for mumps, measles, and rubella**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**16 Sep 1992**	In agreement with regulatory agencies SmithKline Beecham decided to discontinue marketing all vaccines which contain the Urabe Am 9 strain of the mumps virus in those countries where an alternative vaccine containing other strains of the mumps virus is available. This decision is based on the reported incidence of meningeal reactions (1: 11,000) associated with this strain of virus. (Reference: (DCCSKB) Drug company communication - Smith Kline Beecham, , , 16 Sep 1992)
GBR	**19 Sep 1992**	The Department of Health restricted future purchasing of mumps, measles and rubella vaccine to MMR-II which is marketed by Wellcome Medical Division and contains the Jeryl Lynn (B level) strain of the mumps virus. (Reference: (GBRPHJ) The Pharmaceutical Journal, 358, , 19 Sep 1992)
CYP	**23 Oct 1992**	The Drug Council in Cyprus withdrew the marketing licence for SmithKline Beecham triple vaccine Pluserix,the mumps/measles vaccine Rimparix, the mumps vaccine Pariorix and two other MMR vaccines, Trimovax and Imovax (Pasteur Merieux). (Reference: (CYPPS) Pharmaceutical Services, Ministry of Health, , , 23 Oct 1992) **WHO Comment : Mumps, measles and rubella vaccine is a mixed preparation containing live attenuated strains of the measles, mumps and rubella virus. There are different strains of the mumps virus and it is suggested that meningitis may occur marginally more frequently with vaccine containing the Urabe Am 9 strain of the mumps virus than the Jeryl Lynn strain. However, a number of regulatory authorities still accept the Urabe Am 9 strain of the mumps virus on the grounds that no permanent damage arises from the aseptic meningitis.**

Product Name **Valproic acid**

C.A.S. number **99-66-1**

Scientific and common names, and synonyms

2-PROPYLPENTANOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHL	**Nov 2001**	The Public Health Institute of Chile has modified the labels to include warnings about the adverse reactions (pancreatitis and its symptoms) associated with the drug. (Reference: (CHLCW) Communication to WHO, , , 26 Sep 2001)

Product Name **Vigabatrin**

C.A.S. number **60643-86-9**

Scientific and common names, and synonyms

GAMMA-VINYL AMINOBUTYRIC ACID

GAMMA VINYL-GABA

4-AMINOHEX-5-ENOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1991**	The Medicines Control Authority has refused an application of registration of the anticonvulsant, vigabatrin, on grounds that the product is not medically justified.

Product Name **Vigabatrin**

C.A.S. number **60643-86-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, 1, 27, 1991)
		WHO Comment : Vigabatrin, an irreversible inhibitor of GABA-transaminase was introduced in 1989 as a anticonvulsant for management of epilepsy unresponsive to other antiepilepsy agents. In 1991 it was refused registration in Norway because it induced toxic changes, including microvacuolation in the brain of two animal species, at doses that are close to therapeutic dosage levels in man. It is still marketed in Sweden and the United Kingdom.

Product Name **Vinarol and viga (dietary supplements)**

C.A.S. number **2004-0-0011**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**04 Apr 2003**	Two dietary supplement products (Vinarol and Viga) are being voluntarily recalled by the respective companies due to the unlabeled presence of sildenafil. (Reference: (USAMSA) Medwatch Safety Alert, , , 23 May 2003) (Reference: (USAMSA) Medwatch Safety Alert, , , 04 Apr 2003)

Product Name **Vinbarbital**

C.A.S. number **125-42-8**

Scientific and common names, and synonyms

5-ETHYL-5-(1-METHYLBUT-1-ENYL)BARBITURIC ACID

VINBARBITONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**Jul 1984**	Withdrawn following discussions between the manufacturer and the National Board of Health and Welfare. Fatal intoxications and abuse are associated with use of preparations containing vinbarbital.
		WHO Comment : Vinbarbital is an intermediate-acting barbiturate. See WHO comment for barbiturates.

Product Name **Vincamine**

C.A.S. number **1617-90-9**

Scientific and common names, and synonyms

METHYL(3ALPHA,16ALPHA)-14,15-DIHYDRO-14BETA-HYDROXYEBURNAMENINE-14- CARBOXYLATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
HUN	**1980**	Intravenous administration of preparations containing vincamine was prohibited, following association with cardia arrhythmias. (Reference: (HUNIP) National Institute of Pharmacy, , , 21 Aug 1980)

Product Name **Vincamine**

C.A.S. number **1617-90-9**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1987**	The Federal Health Office has withdrawn herbal preparations containing vincamine on grounds of inadequate evidence of efficacy and risk of blood dyscrasias. (Reference: (DEUPD) BGA Pressedienst, No.38, , July 1987) **WHO Comment : Vincamine, an alkaloid derived from Vinca minor, is claimed to increase cerebral circulation and utilization of oxygen. It is used in a variety of cerebral disorders and is widely marketed for this purpose.**

Product Name **Voglibose**

C.A.S. number **83480-39-9**

Scientific and common names, and synonyms

3,4-DIDEOXY-4-[[2-HYDROXY-1-(HYDROXYMETHYL)ETHYL]AMINO]-2-C-(HYDROXYMETHYL)-D-EPI-INOSITOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Dec 1996**	The product information for voglibose has been revised to state that hypoglycaemic symptoms were observed following monotherapy, in particular in patients with severe hepatic dysfunction when no other antidiabetics were administered. [See also acarbose.] (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.140, , Dec 1996) **WHO Comment : Acarbose and voglibose area-glucosidase inhibitors and delay digestion/absorption of carbohydrates as well as improving postprandial hyperglycaemia.**

Product Name **Warfarin**

C.A.S. number **81-81-2**

Scientific and common names, and synonyms

2H-1-BENZOPYRAN-2-ONE,4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-

3-(ALPHA-ACETONYLBENZYL)-4-HYDROXYCOUMARIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
EGY	**1988**	Products containing warfarin must bear a warning advising against the use during the first trimester of pregnancy, having regard to their teratogenic potential. (Reference: (EGYDI) Drug Information, 6(4), 1, 1988) **WHO Comment : Warfarin, a coumarin anticoagulant, was introduced into medicine in 1950 for the prevention and managementof thrombo-embolic disorders. Its use during the first trimester of pregnancy has been associated with birth malformations, particularly in relation to cranial and limb development, and there have been reports of foetal death due to haemorrhage following administration of the drug during the late stages of pregnancy. The decision of the Egyptian agency to requrie a warning regarding teratogenicity to be included in the approved information of products containing warfarin beings the text of the package insert in line with those approved in other countries. Warfarin is included in the WHO Model List of Essential Drugs.** **(Reference: (WHTAC4) The Use of Essential Drugs, 4th Report of the WHO Expert Committee, 796, , 1990)**

Product Name **Xenazoic acid**

C.A.S. number **1174-11-4**

Scientific and common names, and synonyms

P-((ALPHA-ETHOXY-P-PHENYLPHENACYL)AMINO)BENZOIC ACID

XENALMINE

XENALAMINE

4-(2-(BIPHENYL-4-YL)-1-ETHOXY-2-OXOETHYLAMINO)BENZOIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**1965**	The Ministry of Health has suspended the sale of drugs containing xenazoic acid.
FRA	**1965**	The Ministry of Health withdrew approval of xenazoic acid since liver damage had been noted during administration of this drug.
VEN		Not approved for use and/or sale.
		WHO Comment : Xenazoic acid, an antiviral agent, was introduced in the early 1960s. Its use was associated with hepatic toxicity which resulted in its withdrawal from the market in at least two countries in 1965. WHO has no information to suggest that xenazoic acid remains commercially available.

Product Name **Zimeldine**

C.A.S. number **56775-88-3**

Scientific and common names, and synonyms

(Z)-3-(1-P-BROMOPHENYL)-3-(DIMETHYLAMINO)PROPENYL)-PYRIDINE

2-PROPEN-1-AMINE, 3-(4-BROMOPHENYL)-N,N-DIMETHYL-3-(3-PYRIDINYL-, (Z)-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Jul 1983**	This antidepressant drug was withdrawn worldwide by the manufacturer following consultations with the Swedish Department of Drugs. This action was taken in consequence of reports of hypersensitivity reactions which, in a few instances, were accompanied by neurological complications.
		WHO Comment : Zimeldine, an inhibitor of serotonin uptake, was introduced in 1982 for the treatment of depressive illness. By 1983 its use had been associated with incidences of hypersensitivity of varying severity and serious neurological side effects including the Guillain-Barr, syndrome. Following discussions with the National Board of Health and Welfare of Sweden, the major manufacturer decided to withdraw the drug on a worldwide basis.

Product Name **Zipeprol**

C.A.S. number **34758-83-3**

Scientific and common names, and synonyms

ALPHA-(ALPHA-METHOXYBENZYL)-4-(BETA-METHOXYPHENETHYL)-1- PIPERAZINEETHANOL

1-METHOXY 3-(4-(BETA-METHOXYPHENETHYL)-PIPERAZIN-1-YL)-1-PHENYLPROPAN- 2-OL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Jun 1982**	Withdrawn from use as an antitussive since toxicological studies with rhesus monkeys have shown respiratory arrest after administration.

Product Name **Ziperol**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BRA	**Oct 1993**	The Brazilian Ministry of Health has withdrawn Ziperol from the market and prohibited its importation or production due to several cases of deaths among street children. (Reference: (BRASDP) Centro Brasileiro de Informacoes Sobre Drogas Psicotropicas, , , 05 Oct 1993)

Product Name **Zomepirac**

C.A.S. number **33369-31-2**

Scientific and common names, and synonyms

5-(P-CHLOROBENZOYL)-1,4-DIMETHYLPYRROLE-2-ACETIC ACID

5-(P-CHLOROBENZOYL)-1,4-DIMETHYLPYRROLE-2-ACETATE

1H-PYRROLE-2-ACETIC ACID, 5-(4-CHLOROBENZOYL)-1,4-DIMETHYL-

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
@WD	**Mar 1983**	The US Food and Drug Administration has informed the World Health Organization that this nonsteroidal anti-inflammatory drug has been withdrawn voluntarily from the market by the manufacturers following reports of serious allergic reactions, including five deaths from anaphylaxis. The drug was approved for marketing within the USA in October 1980. In April 1982 the labelling was revised to warn of the occurrence of allergic reactions, but because of the subsequent increase in the incidence of anaphylactoid reactions and reports of four deaths in the first three months of 1983, the company advised the FDA that it was temporarily withdrawing zomepirac worldwide pending further evaluation. **WHO Comment : Zomepirac, a nonsteroidal anti-inflammatory agent, was introduced in 1979 for the treatment of rheumatic disorders and the management of moderate to severe pain. By 1983 its use had been associated with serious allergic reactions, including five deaths from anaphylaxis. This led to voluntary withdrawal of the drug from markets worldwide by the major manufacturer.**

Product Name **Zopiclone**

C.A.S. number **43200-80-2**

Scientific and common names, and synonyms

ZOPICLONUM

27267-RP

4-METHYL-1-PIPERAZINECARBOXYLIC ACID ESTER WITH 6-(5-CHLORO-2-PYRIDYL)- 6,7-DIHYDRO-7-HYDROXY-5H-PYRROLO(3,4-B)PYRAZIN-5-ONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ISL	**25 Feb 1986**	Zopiclone is not approved for registration on grounds of positive findings in carcinogenicity tests in animals and adverse effects in humans.
NOR	**1987**	Zopiclone is not approved for registration on grounds that animal studies have disclosed thyroid disorders and neoplasms.
MUS	**May 2000**	The Ministry of Health and Quality of Life has rescheduled the antipsychotic agent zopiclone into Schedule III of the consolidated Dangerous Drugs Act 2000 following observations of irrational use and emerging abuse.

Product Name **Zopiclone**

C.A.S. number **43200-80-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (MUSMHQ) Letter to WHO, , , 27 Dec 2000)
		WHO Comment : Zopiclone was introduced as a sedative in 1985. It remains registered in several countries and the World Health Organization is not aware of any other country that has refused registration.

Product Name **ACE-Inhibitors**

Scientific and common names, and synonyms

ANGIOTENSIN-CONVERTING ENZYME INHIBITORS

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Sep 1988**	The Federal Health Office re-emphasized that products containing ACE-inhibitors are contraindicated during pregnancy. Exposure to enalapril or captopril in utero has resulted in a state of potentially reversible anuria in newly born infants. (Reference: (BGHBL) Bundesgesundheitsblatt, 31/9, 369, 1988)
GBR	**Dec 1989**	The product information of ACE-inhibitors including captopril, enalapril, lisinopril and quinapril was amended to emphasize that these products are contraindicated in pregnancy, following thier association with shortage of amniotic fluid in mothers and abnormal skull ossification, hypotension, renal failure and anuria in exposed infants. (Reference: (GBRCSM) Committee on Safety of Medicines, Current problems, 27, , Dec 1989)
ITA	**Jul 1990**	Use of products containing ACE-inhibitors was contraindicated during pregnancy, following their association with shortage of amniotic fluid in mothers and imcomplete cranial ossification in neonates. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, XIV(7):4, , 1990)
MYS	**1992**	Manufacturers and importers of products containing ACE-inhibitors were notified by the Drug Control Authority to include a warning that ACE-inhibitors have been shown to be fetotoxic in animal studies and their use in women in the later stages of pregnancy has been associated with an increased incidence of serious fetal/neonatal conditions. (Reference: (MYSDN) Berita Ubat-Ubatan (Drug Newsletter), 6(2):2, , 1992)
NZL	**1992**	Having regard to reports of foetal damage, including kidney failure and face or skull deformities attributed to angiotensin-converting enzyme inhibitors, women in New Zealand who become pregnant while receiving such a product have been advised to consult their doctor in order that an alternative treatment may be prescribed. (Reference: (NZCSL) Clinical Services Letter, Department of Health, 266, , 28 Aug 1992)
PRT	**1992**	The Ministry of Health revised the product information for angiotensin-converting enzyme (ACE) inhibitorsto contraindicate their use during pregnancy. (Reference: (PRTIT) Informacao terapeutica, 1(1), , May 1992)
SWE	**1992**	The Medical Product Agency recommended that treatment with ACE-inhibitors be discontinued immediately should the patient become pregnant. (Reference: (SWEILS) Information från Läkemedelsverket, 2(3):89, , 1992)
USA	**Mar 1992**	Product containing ACE-inhibitors, including captopril, fosinopril, benazepril, ramipril, lisinopril, enalapril, enalaprilat and quinapril were required to carry a boxed warning regarding risks of exposure during the later stages of pregnancy, following reports of kidney failure, and abnormalities in the face and cranium of the foetus. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, P92-8, , 13 Mar 1992)
ESP	**21 Apr 1992**	The Directorate General of Pharmacy and Health Products of the Ministry of Health and Consumer Affairs decided that ACE-inhibitors treatment during pregnancy should be contraindicated. (Reference: (ESPOR) Ministerio de Sanidad y Consumo, , , 02 July 1992)
THA	**Feb 1994**	The Ministry of Public Health has decided to add a warning to the labelling of products containing angiotensin-converting enzyme (ACE) inhibitors stating that the drug should not be used in pregnancy, that it may increase blood potassium level, provoke kidney failure, angioneurotic oedema and other adverse effects. (Reference: (THAFDA) Communication to WHO, , , 08 Feb 1994)

Product Name **ACE-Inhibitors**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : The tolerability profile of ACE-inhibitors (including captopril, enalapril, lisinopril, quinapril, ramipril etc.) is by now well established. Captopril is listed in the WHO Model List of Essential Drugs.

Product Name **Acetylsalicylic acid/antacid**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Apr 1994**	The Food and Drug Administration proposed to revise the labelling of products containing acetylsalicylic acid (including buffered acetylsalicylic) alone or in combination with an antacid to include the following statement: ?IMPORTANT: See your doctor before taking this product for your heart or for other new uses of aspirin [acetylsalicylic acid], because serious side effects could occur with self-treatment? . (Reference: (FEREAC) Federal Register, 58(201) , p. 54224, 1993) **WHO Comment : See under Acetylsalicylic acid.**

Product Name **Acetylsalicylic acid/codeine**

Scientific and common names, and synonyms

CODEINE/ACETYLSALICYLIC ACID

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1 Jan 1990**	All fixed combination preparations containing acetylsalicylic acid 500 mg + codeine phosphate 10 mg have been withdrawn, on the grounds that the low dose of codeine in these preparations does not contribute to the analgesic effect, but may cause adverse effects and induce dependence. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 15(2), 59, 1990)

Product Name **Acetylsalicylic acid/phenacetin/caffeine (APC)**

Scientific and common names, and synonyms

APC

CAFFEINE/PHENACETIN/ACETYLSALICYLIC ACID

PHENACETIN/ACETYLSALICYLIC ACID/CAFFEINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**1983**	Banned for manufacture. Preparations must be reformulated to contain only acetylsalicylic acid.

Product Name **Allopurinol and benzbromarone**

C.A.S. number **2003-1-1001**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Feb 2001**	This anti-gout preparation has been withdrawn in France due to associations of adverse hepatic effects with benzbromarone and toxic skin and hypersensitivity reactions with allopurinol. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)

Product Name **Amoxicillin/clavulanic acid**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**8 Jun 1995**	The injectable form of the combination antibiotic was suspended after reports of cases of severe allergic reactions were received. (Reference: (GRANDO) Communication, , , 08 June 1995)
GBR	**May 1997**	The Committee on Safety of Medicines has restricted the indications for the combination antibiotic, amoxicillin/clavulanic acid, to bacterial infections likely or known to be caused by amoxicillin-resistant beta-lactamase producing strains. This action has been taken after reports were received of cholestatic jaundice occurring during or shortly after the use of this product. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol. 23, p.6, May 1997) **WHO Comment : The amoxicillin/clavulanic acid combination should be reserved for infections likely or known to be caused by amoxicillin- resistant beta-lactamase producing strains. Amoxicillin/clavulanic acid is listed in the WHO Model List of Essential Drugs.**

Product Name **Ampicillin/cloxacillin**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	**Jun 1995**	The Drug Control Authority has cancelled the registration of fixed-dose combination products containing ampicillin and cloxacillin because this combination does not meet the criteria set for combination products. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 9(2): 3, , June 1995) **WHO Comment : Ampicillin and cloxacillin are listed separately in theWHO Model List of Essential Drugs.**

Product Name **Analgesics in combination**

Scientific and common names, and synonyms

ANALGESICS/BENZODIAZEPINES

ANALESICS/MEPROBAMATE

Legislative or regulative action

Legislative or regulation action

Product Name **Analgesics in combination**

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1991**	The marketing authorization for products containing analgesics in combination with benzodiazepines or neprobamate was withdrawn, because sedative components in analgesic preparations create unnecessary risks of abuse, dedation and subsequently adverse effects due to chronic misuse of the analgesics. (Reference: (DEUPZ) Pharmazeutische Zeitung, 136/8, 402, 1991)
JPN	**28 Sep 1995**	The Central Pharmaceutical Affairs Council issued an alert concerning analgesics and cold remedies containing antifever agents including acetylsalicylic acid, paracetamol and ibuprofen available for sale over- the- counter (OTC), after over 40 reports were received of severe adverse reactions necessitating hospitalization. In most cases, the patient had a history of hypersensitivity but ignored the warning in the package insert. (Reference: (JPNPAC) Central Pharmaceutical Affairs Council, , , 28 Sep 1995) **WHO Comment : There is a growing awareness of serious health risks associated with indiscriminate use of these drugs. Acetylsalicylic acid, ibuprofen and paracetamol are listed as individual agents in the WHO Model List of Essential Drugs.**

Product Name **Anorectic drugs**

Scientific and common names, and synonyms

AMFETAMINE-LIKE COMPOUNDS

DEXFENFLURAMINE

FENFLURAMINE

PHENTERMINE

PHENDIMETRAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BRA	**18 Aug 1994**	The Ministry of Health has issued an order prohibiting the manufacture, distribution and sale of anorectic substances promoted as "anti-obesity" drugs. The substances at issue are: fepramone, dexfenfluramine, fenfluramine, levofenfluramine, fenproporex and mazindol either as single ingredient drugs or in combination with other anorectic agents. (Reference: (BRASVS) Secretaria de Vigilancia Sanitaria, Portaria 87, , 18 Aug 1994)
FRA	**May 1995**	Because of cases of pulmonary hypertension, the French Medicines Agency has made the following restrictions in the use of amfetamine-based anorectic agents: they are indicated only for the treatment of severe obesity in patients whose body mass index is over 30, which constitutes a severe cardiovascular risk factor; duration of treatment (cumulative) is limited to three months; they are contraindicated in combination with other drugs. (Reference: (FRAAMC) Communiqué de Presse, , , 12 May 1995)
@EC	**18 Jul 1996**	The Committee on Proprietary Medicinal Products recommends the inclusion of a boxed warning in the Summary Product Characteristics that clearly sets out the risks of pulmonary hypertension that is associated with anorectic agents, including the serotonergic compounds dexfenfluramine and fenfluramine; and the ?amfetamine-like? compounds: amfepramone, clobenzorex, fenbutrazate, fenproporex, mazindol, mefenorex, cathine (norpseudoephedrine), phendimetrazine, phenmetrazine, phentermine and propylhexedrine. The Committee concluded that the risk-benefit balance is favourable provided that the products are used under strict supervision by specialist in carefully selected patients. (Reference: (CPMPAR) PMP Assessment Report for Anorectic Agents, , , 18 July 1996)

Product Name **Anorectic drugs**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PRT	**Sep 1999**	The Portuguese Medicines Evaluation Committee has recommended to the Board of INFARMED the suspension of marketing authorizations for all medicinal products containing clobenzorex and fenproporex. This recommendation follows the final opinions of the Committee on Proprietary Medicinal Products that recommends the withdrawal of the marketing authorizatons for medicinal products containing amfepramone, phentermine, clobenzorex, fenproporex, mefenorex, norpseudoephedrine and phendimetrazine based on the lack of therapeutic efficacy of these products leading to an unfavourable benefit/risk balance and the withdrawal of the marketing authorizations for fenfluramine and dexfenfluramine containing medicinal products, based on an unacceptable safety profile under normal conditions of use and limited therapeutic efficacy, leading to an unfavourable benefit/risk balance. (Reference: (PRTIFM) Communication, , , 14 Sep 1999)
FRA	**Oct 1999**	The Agency Française de Sécurité Sanitaire des Produits de Santé (AFSSPS) has suspended the marketing authorizations for medicinal products containing the anorectic agents amfepramone, clobenzorex, dexfenfluramine, fenfluramine, fenproporex and mefenorex because of their implication in the occurrence of arterial pulmonary hypertension. (Reference: (FRARP) La Revue Prescrire, Vol. 19(199), , Oct 1999)
OMN	**Apr 2000**	The Directorate General of Pharmaceutical Affairs & Drug Control has banned the registration and import of the following anorectic agents: Clobenzorex, mefenorex, phedimetrazine, fenproporex, nor pseudoehedrine, febutazate and propylhexedrine. This action was taken because of lack of therapeutic efficacy leading to an unfavourable benefit/risk balance. . (Reference: (OMNCR) Circular, No. 26/2000, , 26 Apr 2000)

Product Name **Anorectic dugs in combinations**

Scientific and common names, and synonyms

AMFEPRAMONE,BENZFETAMINE,BENFLUOREX,FENFLURAMINE,PHENDIMETRAZINE,PHENTERMINE/TIRATRICOL/THYROID HORMONE/METFORMIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ITA	**26 May 1987**	Extemporaneous preparation of products in which anorectic agents including amfepramone, benzfetamine, benfluorex, fenfluramine, phendimetrazine and phentermine are combined with tiratricol, thyroid hormone or metformin has been prohibited. Prohibition of manufacture of preparations containing anorectics in combination with other active principles. (Reference: (ITADMS) Decree of the Ministero della Sanita, , , 26 May 1987) **WHO Comment : Anotectics have been introduced many years ago for use as adjuncts to dietary control in the short-term management of obesity. Their use in combination with other drugs such as thyroid hormone, tiratricol or metformin to increase weight loss is considered inappropriate and dangerous. Although they may lead to weight loss, thyroid hormone and tiratricol should only be used in obese patients with a proven thyroid deficiency and metformin should only be administered to overweight patients suffering from diabetes. Moreover, all three drugs are associated with serious adverse effects. Extemporaneous preparations of products containing anorectics in combination with other active ingredients has been prohibited in Italy. In some other countries, although discouraged, it still remains a common practice.**

Product Name **Anorectic dugs in combinations**

Product Name **Antidiarrhoeal combinations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**1989**	Import and marketing of antidiarrhoeal preparations containing antibiotics or antimicrobial agents were prohibited. (Reference: (OMNCR) Circular, 31/89, , 1989) (Reference: (OMNCR) Circular, 15/89, , 1989)
LBN	**03 Aug 1991**	Registered only as a wood preservative for a very specific use.
IDN	**Oct 1991**	Solid and liquid formulations of preparations containing streptomycin, kanamycin, neomycin, non-absorbable sulfonamides, hydroxyquinolines, antihistamines or vitamins intended for the treatment of diarrhoea in children were banned. (Reference: (IDMH) Ministry of Health, , , 19 Nov 1991)
BRA	**14 Sep 1994**	The Ministry of Health has issued an order withdrawing a number of paediatric formulations of antidiarrhoeal preparations on the grounds of low or unproven efficacy. For another group of substances the order requires that the product information include the phrase: "Not indicated in acute or persistent diarrhoea in children". (Reference: (BRASVS) Secretaria de Vigilancia Sanitaria, Portaria 106, , 14 Sep 1994)
IND	**Apr 1995**	The Drug Controller of India has banned the manufacture and sale of six antidiarrhoeal products on the grounds that they do not have any therapeutic justification and are likely to involve a risk for patients, especially in children for whom oral rehydration therapy is preferred. (Reference: (INDEPH) The Eastern Pharmacist, , , Apr 1995)
MYS	**Jun 1995**	The Drug Control Authority has withdrawn the registration for liquid oral forms of antidiarrhoeal preparations containing loperamide and diphenoxylate for use in young children. (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 9(2): 7, , June 1995) **WHO Comment : The list of agents concerned is very long. Refer to original references. The aminoglycoside antibiotics streptomycin, kanamycin and neomycin, non-absorbable sulfonamides (i.e. sulfaguanidine, succinyl-sulfathiazole, phthalylsulfathiazole) and halogenated hydroxyquinolines (e.g. clioquinol, broxyquinoline, chlorquinaldol) have been used as antidiarrhoeal agents. However, there is no satisfactory evidence that they are effective, they have occasionally been associated with severe adverse reactions and some promote the emergence of bacterial resistance. The World Health Organization recommends that they should not be used for the management of diarrhoea in children.** **(Reference: (WHTAC5) The rational use of drugs in the management of acute diarrhoea in children, , , 1990)**

Product Name **Antirheumatic combinations with glucocorticosteroids**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
AUT	**Jan 1986**	Enteral preparations have been withdrawn and parenteral preparations may only be used for very limited indications and under strict medical supervision.
DEU	**1 Jan 1986**	Fixed combinations have been withdrawn since concurrent administration of such drugs potentiates adverse effects without increasing benefit.

Product Name **Antirheumatic combinations with glucocorticosteroids**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Product Name **Atropine in combination**

C.A.S. number **51-55-8**

Scientific and common names, and synonyms

BENZENEACETIC ACID, ALPHA-(HYDROXYMETHYL)-8-METHYL-8-AZABICYLO[3.2.1]OCT-3-YL ESTER, ENDO(+/-)-1ALPHA H, 5ALPHA H-TROPAN-3ALPHA-OL (+/-)-TROPATE (ESTER)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Sep 1976**	Combinations of atropine sulfate with difenoxylate, furazolidone and dimethylpolysiloxane were withdrawn because of potential adverse reactions including dysuria (from atropine and furazolidone), tachycardia, palpitation and blurring of vision.
KOR	**Dec 1991**	Products containing atropine indicated for the treatment of acute diarrhoea were banned because there are many preparations which are safer and more effective. (Reference: (KRMHSA) Ministry of Health and Social Affairs - Communication to WHO, , , 13 Dec 1991) **WHO Comment : Atropine, an alkaloid with anticholinergic activity extracted from Atropa belladonna, has been widely used in medicines for centuries for its antispasmodic and mydriatic properties. It is also used for premedication prior to anaesthesia. Preparations containing atropine remain available and the substance is included in the WHO Model List of Essential Drugs.** **(Reference: (WHTAC4) The Use of Essential Drugs, 4th Report of the WHO Expert Committee, 796, , 1990)**

Product Name **Azatadine maleate/pseudoephedrine sulfate**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NLD	**May 1994**	The marketing authorization of a combination tablet formulation containing azatadine maleate and pseudoephedrine sulfate indicated for treatment of congestion associated with the common cold was withdrawn because of doubtful efficacy and greater risk of adverse effects with products intended for systemic use rather than topical use. (Reference: (NPHWB) Pharmaceutisch Weekblad, 28(5):126, , 1994)

Product Name **Barbiturates in asthma preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ZAF	**1998**	The South African Medicines Control Council has withdrawn asthmatic preparations containing barbiturates because of the unacceptable risk-benefit profile which is not in the interest of public health.

Product Name **Barbiturates in asthma preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (ZAFPS) Information from the Pharmaceutical Services, , ,)

Product Name **Barbiturates in combination**

Scientific and common names, and synonyms

ATRIUM

ANTIASTHMATICS/BARBITURATES

ANTACIDS/BARBITURATES

ANALGESICS/BARBITURATES

BARBITURATES/ANTIASTHMATICS

BARBITURATES/ANTACIDS

BARBITURATES/ANALGESICS

1-(3-BUTOXY-2-HYDROXYPROPYL)-5-ETHYL-5-PHENYLBARBITURIC ACID CARBAMATE ESTER/1,3-BIS-(3-BUTOXY-2-HYDROXYPROPYL)-5-ETHYL-5-PHENYLBARBITURIC ACID DICARBAMATE ESTER/ 5-ETHYL-5-PHENYLBARBITURIC ACID DICARBAMATE ESTER

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
TUR	**1982**	Combination products with barbiturates and analgesics have been withdrawn by the Ministry of Health due to the lack of substantial evidence of efficacy and the risk of dependence. Export of these products is prohibited.
DEU	**1 Jun 1986**	The Federal Health Office has withdrawn approval for the inclusion of barbiturates in analgesic and antirheumatic preparations since their inclusion in such products serves no purpose and creates unnecessary risks of abuse and sedation.
MYS	**Nov 1986**	All combination products containing barbiturates have been withdrawn. (Reference: (MYSDC) Malaysian Drug Control Authority, No.4, , Nov 1986)
DEU	**Jun 1994**	The Federal Institute for Drugs and Medical Devices has restricted the indications for barbiturates to focal (partial) epileptic fits or generalized epileptic fits, and anaesthesia or pre-anaesthesia. Marketing authorization for these medicinal products was revoked for all other indications. (Reference: (DEUCFI) Communication, , , 20 June 1994)
FRA	**4 Apr 1997**	The marketing authorization of the 100-mg formulation of Atrium®, a combination product containing febarbamate, difebarbamate and phenobarbital indicated for the treatment of minor anxiety, has been withdrawn following an evaluation which concluded that the benefit/risk ratio is unfavourable, and in view of the potential risk of liver damage occurrence. The indication for the 300-mg formulation of Atrium® is restricted to the treatment of alcoholic withdrawal syndrome with a maximum treatment duration of four weeks. (Reference: (FRAAMA) Pharmacovigilance Alert, , , 04 Apr 1997)
SAU	**Jun 1999**	The Ministry of Health has withdrawn from the market a fixed combination barbiturate product containing phenobarbital, febarbamate and difebarbamate because of reports of hepatotoxicity. (Reference: (SAUCW) Notification, , , 20 June 1999)
GBR		Barbiturates and antacids in combination have been withdrawn from the market by manufacturers, for general safety reasons in relation to barbiturates. Combination products with barbiturates and antiasthmatics have been withdrawn by manufacturers because barbiturates may depress respiration.

Product Name **Barbiturates in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		WHO Comment : Barbiturates were introduced at the beginning of the 20th century and have been extensively used as sedative-hypnotic drugs. Their use in the treatment of sleep disorders and anxiety has been largely superseded by the benzodiazepines since the former have a greater liability for abuse and development of tolerance and withdrawal syndrome, a lower therapeutic index and a higher incidence of drug interactions and adverse effects possibly including carcinogenic, mutagenic and teratogenic effects. Although many preparations containing barbiturates remain available, some regulatory authorities have severely restricted their approved indications and withdrawn product licences for combination products containing these substances (see full list). The type of product, its dose and duration of use are in this context of great importance. Several barbiturates are controlled under the 1971 Convention on Psychotropic Substances. The long-acting barbiturates phenobarbital and methylphenobarbital are of value in the treatment of epilepsy and several short-acting barbiturates are still used in anaesthesia. **(Reference: (UNCPS) United Nations Convention on Psychotropic Substances, , , 1971)**

Product Name **Benzbromarone and Benziodarone**

C.A.S. number **2004-1-1001**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**10 Feb 2004**	Following reports of hepatotoxicity, the Spanish Safety Committee has withdrawn the marketing authorizations for benziodarone and benzbromarone-allopurinol fixed dose combination products. Benzbromarone has been brought under restricted use, to be prescribed by specialists in hospitals, for treating hyperuricaemia in allopurinol-intolerant patients with gout polyarticular or gout tophaceous, renal failure and renal transplantation. (Reference: (ESPSMA) Communication to WHO, Ref: 2004/02, , 10 Feb 2004)

Product Name **Boric acid and borates**

C.A.S. number **10043-35-3**

Scientific and common names, and synonyms

BORIC ACID (H3BO3)

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BRA	**Apr 2001**	Boric acid and borax have been eliminated from preparations for topical administration in infants. (Reference: (BRARES) Resolucao n., 552/ANVISA, , 30 Apr 2001)

Product Name **Calcium bromidum and chloral hydrate**

C.A.S. number **2003-1-1002**

Legislative or regulative action

Legislative or regulation action

Product Name **Calcium bromidum and chloral hydrate**

C.A.S. number **2003-1-1002**

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Aug 2001**	Withdrawn due to the mutagenic and carcinogenic potential of chloral hydrate. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)

Product Name **Calcium channel blockers**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**Oct 1996**	Monotherapy with short-acting calcium channel blockers (nifedipine) is no longer recommended for patients with angina or clinical evidence of coronary artery disease. (Reference: (NZLTN) Therapeutic Notes, No.22, , Oct 1996)
DEU	**1 Jul 1997**	The Federal Institute for Drugs and Medical Devices has amended the authorizations for medicinal products containing the calcium antagonists amlodipine, fodipine, isradipine, nicardipine, nifedipine, nilvadipine, nimodipine, nisoldipine and nitrendipine with effect from 1 July 1997. The indications for nifedipine have been restricted to vasospastic angina pectoris (variant angina), chronic stable angina pectoris, essential hypertension, hypertensive crisis, and Raynaud?s syndrome. Contraindications have been extended to include unstable angina pectoris, and acute myocardial infarction. The adverse reactions section will include a warning that occasionally patients with existing angina pectoris may experience an increase in frequency, duration and severity of angina pectoris attacks, and that myocardial infarction has occasionally been observed. Because of dose related cardiovascular complications, therapy with immediate-release products containing nifedipine should be initiated only when other products are contraindicated. The maximum daily intake has been restricted to 60mg. (Reference: (DEUCFI) Communication, , , 07 Apr 1994) (Reference: (DAZ) Deutsche Apotheker Zeitung, 137(15):1172, , 1997) **WHO Comment : Calcium channel blockers were introduced in the sixties. They are mainly used in coronary heart disease, as antiarrhythmic agents and also in the treatment of hypertension. The long-acting calcium channel blockers like verapamil and diltiazem, due to their longer half-life time, have a somewhat different therapeutic and safety profile from the short-acting agents discussed above. Nifedipine and verapamil are listed in the WHO Model List of Essential Drugs.**

Product Name **Chloramphenicol in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BEL	**1980**	Preparations containing chloramphenicol in combination with tetracyclines are prohibited having regard to the cumulative toxicity of the two antibiotics. (Reference: (BELAR) Arrêté Royal, , , Oct 1980)
ESP	**Mar 1985**	Registration of combination products containing chloramphenicol was disallowed because of the propensity of this drug to cause aplastic anaemia.
IND	**Nov 1988**	Fixed dose oral and parenteral combination products containing chloramphenicol were banned. (Reference: (INDDHS) Directorate of Health Services, , , 11 Mar 1992)

Product Name **Chloramphenicol in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Oct 1989**	Products containing chloramphenicol in combination with nitrofurantoin, sulfisoxazole and methylene blue have been withdrawn for reasons of increased risk of toxicity, especially blood dyscrasias, and lack of therapeutic advantage over products containing chloramphenicol only. (Reference: (THAMH) Ministry of Public Health, , , 15 Apr 1991)

Product Name **Chlormadinone acetate/mestranol (in oral contraceptives)**

Scientific and common names, and synonyms

MESTRANOL/CHLORMADINONE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1970**	Oral contraceptives containing this combination were voluntarily withdrawn from the market because of the development of breast nodules in beagle dogs administered 10 to 25 times the human dosage of active components. The beagle is especially prone to breast nodules, regularly developing these in later life. The naturally occurring nodules are generally accepted to be benign mixed tumours. However, in these studies, the treated dogs developed more nodules at an earlier age than did the control dogs which were not given the drug. Species difference in the metabolism of the chemicals and the large doses used also prevent direct transposition of these data to human beings.
SAU		Oral contraceptives with these and other ingredients are available only on a prescription basis.
VEN		Not approved for use and/or sale as ingredients in oral contraceptives.

Product Name **Clopamide, reserpine and dihydroergocristine mesilate**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
LTH	**May 2000**	The State Medicines Control Agency has not renewed marketing authorization for combination products containing clopamide, reserpine and dihydroergocristine mesilate on the grounds that safer and more effective medicinal products are available. (Reference: (LTHMCA) Order of State Medicines Control Agency, No. 61, , 17 May 2000)

Product Name **Contrast media (ionic and non-ionic)**

Scientific and common names, and synonyms

IOXITALAMIC ACID

IOXAGLIC ACID

IOMEPROL

IOVERSOL

IOHEXOL

IOPAMIDOL

Legislative or regulation action

Product Name **Contrast media (ionic and non-ionic)**

Scientific and common names, and synonyms

IOTROLAN

IOTALAMIC ACID

IODIXANOL

LYSINE AMIDOTRIZOATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**Nov 1995**	Pending an evaluation by the Federal Institute for Drugs and Medical Devices and in view of an increased number of hypersensitivity reactions, sometimes delayed, that have been observed after the administration of iodixanol or iotrolan, the manufacturer has temporarily suspended marketing of iotrolan (Isovist®-280). (Reference: (DEURFI) Rapid Alert - Pharmacovigilance, , , 13 Oct 1995) (Reference: (DEUCFI) Communication, , , 28 Nov 1995)
JPN	**Mar 1996**	The Pharmaceutical Affairs Bureau issued a warning about adverse reactions to non-ionic contrast media which, although less frequent than those reported with ionic contrast media, may be serious and are often delayed in onset. The products involved are iopamidol, iohexol, ioversol, iomeprol and ioxaglic acid. The reactions concern delayed allergic reactions including shock and anaphylactoid symptoms. Emergency measures for the treatment of shock should be available when x-rays are performed using these preparations. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No. 136, , Mar 1996)
DEU	**Sep 1997**	The Federal Institute of Drugs and Medical Devices has withdrawn the marketing authorization for an ionic contrast medium containing lysine amidotriazoate (Peritrast®-180/36%), since new large-scale studies show that low osmolar non-ionic contrast media have a much lower risk potential than high osmolar ionic contrast media, including Peritrast®-180/36%, and therefore the use of these products can no longer be justified. (Reference: (DEUPZ) Pharmazeutische Zeitung, 142(37): 3096, , 1997)
DEU	**Jul 1998**	The Federal Institute of Drugs and Medical Devices has announced its intention to revoke the marketing authorizations for ionic contrast media containing lysine amidotriazoate, iotalamic acid or ioxitalamic acid, either alone or in combination, for intravasal administration, because their use has been associated with severe adverse reactions including hypotension, arrhythmias, pulmonary oedema and renal disorders. At the same time, products that are indicated for intra-arterial and intravenous use and for use in the body cavities may now only be used in the body cavities. (Reference: (DEUNFI) Notification, , , 06 July 1998)

Product Name **Cycloserine/isoniazid**

Scientific and common names, and synonyms

ISONIAZID/CYCLOSERINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM		This combination has been prohibited for use and/or sale since the benefits of treatment have not been found to outweigh the risks.

Product Name **Desensitizing vaccines**

Legislative or regulation action

Product Name **Desensitizing vaccines**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	May 1994	The Committee on Safety of Medicines has reviewed the efficacy and safety of desensitizing vaccines and has concluded that these products should be used only for the following indications: seasonal allergic hay fever not responding to anti-allergy drugs and hypersensitivity to wasp and bee venoms. Desensitization should be carried out only where facilities for cardiopulmonary resuscitation are immediately available. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol. 20, , May 1994)

Product Name **Dicycloverine(dicyclomine)/doxylamine/pyridoxine)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	8 Feb 1994	The Ministry of Public Health has decided to withdraw all combination pharmaceutical products indicated for the prevention of vomiting containing dicycloverine (dicyclomine), doxylamine and pyridoxine. This action is based on the perceived teratogenic potential of this combination preparation. (Reference: (THAFDA) Communication to WHO, , , 08 Feb 1994) **WHO Comment : See also under dicycloverine alone in full edition. Its use was restricted in several countries for reasons other than suspicions of teratogenicity associated with the combination preparation.**

Product Name **Dihydroergotamine/heparin**

C.A.S. number **511-12-6**

Scientific and common names, and synonyms

HEPARIN/DIHYDROERGOTAMINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	9 Feb 1988	The approved indications of injectable preparations containing dihyroergotamine in combination with heparin have been amended to limit their use as follows: "post-operative prophylaxis against deep vein thromboses and lung embolism in pateints at high risk of thrombotic complications who have undergone elective non-traumatic surgery". This reflects the risk of vasospastic reations, some of which have necessitated limb amputation, in particular in treated patients who had undergone surgery for trauma. (In addition to the reference given, also see Farmaceutiska specialiteter i Sverige. L,kemedelsinformation AB, 23,635,1988). (Reference: (SWEFSL) Farmaceutiska specialiteter i Sverige. Läkemedelsinformation AB, 23, 635-636, 1988) (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 13(4), 115, 1988)

Product Name **Dihydrostreptomycin sulfate/streptomycin sulfate**

Scientific and common names, and synonyms

STREPTOMYCIN SULFATE/DIHYDROSTREPTOMYCIN SULFATE

Legislative or regulation action

Product Name **Dihydrostreptomycin sulfate/streptomycin sulfate**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA		Combination withdrawn from the market and prohibited for export by the Food and Drug Administration on the grounds of an unfavourable benefit/risk ratio.

Product Name **Dipotassium clorazepate/acepromazine/aceprometazine**

Scientific and common names, and synonyms

ACEPROMETAZINE/ACEPROMAZINE/DIPOTASSIUM CLORAZEPATE

ACEPROMAZINE/DIPOTASSIUM CLORAZEPATE/ACEPROMETAZINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Mar 1983**	Disapproved for use due to effects of liver toxicity and Parkinsonism. There is a lack of evidence of greater efficacy in the combination than with the component drugs given individually. Acepromazine is approved for veterinary use only.

Product Name **Estrogen-progestogen preparations for secondary amenorrhea**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DNK	**Oct 1974**	Use of high-dosage products has been cancelled.
DEU	**1980**	The Federal Health Office has withdrawn from the market relatively high-dosage combination products containing estrogens and progestogens indicated for the treatment of secondary amenorrhoea. An expert committee had emphasized the need to exclude pregnancy before such products are used, having regard to their propensity to induce abortion.
SAU		The Drug Committee has advised using these combination products only after pregnancy has been ruled out. Relatively high-dosage products are restricted for use.
VEN		Combinations for secondary amenorrhoea are not approved for use and/or sale.

Product Name **Estrogens**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1989**	Products containing estrogens may no longer be indicated for suppression of lactation and prevention of breast engorgement in mothers who elect not to breastfeed. (Reference: (FDATP) Food and Drug Administration Talk Paper, T89-56, , 27 Sep 1989)
DEU	**Jan 1992**	The use of estrogens for substitution therapy was restricted to the treatment of post-menopausal women who have undergone hysterectomy. (Reference: (DEUPZ) Pharmazeutische Zeitung, 136(3), 85, 1992)
BEL	**7 Jun 1993**	The Ministry of Health has subjected preparations containing estrogens for vaginal use to

Product Name **Estrogens**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		prescription control. They will be required to be labelled with the skull and crossbones symbol and stored in a poisons cupboard. (Reference: (BELAP) Annales Pharmaceutiques belges, Dec. 8/9: 19, , 07 June 1993) **WHO Comment : Estrogens have been used for the prevention of postpartum breast pain and engorgement. However, because of an increased risk of puerperal thromboembolism and a risk of rebound effect, and since only 10% of women benefit therapeutically from such intervention, the United States Food and Drug Administration has requested manufacturers to no longer indicate preparations containing estrogens for this purpose. The World Health Organization is not aware of similar action having been taken elsewhere.**

Product Name **Estrogens (in oral contraceptives)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Apr 1988**	Oral contraceptives containing more than 50 mcg of estrogen have been voluntarily withdrawn by the manufacturers, because they are associated with a higher risk of venous thrombo-embolism than low dose preparations. (Reference: (HHSNS) HHS News: US Department of Health and Human Services, P88-7, , 14 Apr 1988) **WHO Comment : Preparations containing both an estrogen and a progestogen in fixed combination were introduced for oral contraception in 1960. In late 1960's, use of products containing more than 50 mcg of estrogen was demonstrated to be associated with an increased risk of thrombo-embolic disease. Such formulations, which offer no advantage in terms of efficacy have subsequently been largely abandoned.**

Product Name **Estrogens/testosterone**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Under the provisions of the Drugs (Control) Ordinance, combinations of ethinyl estradiol and methyltestosterone have been banned. It has been found to be a highly misused preparation with carcinogenic properties and side effects include menstrual irregularities, increased blood pressure, uterine bleeding and others. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)

Product Name **Etamivan in combination**

Scientific and common names, and synonyms

BENZAMIDE, N,N-DIETHYL-4-HYDROXY-3-METHOXY-

ETHAMIVAN

N,N-DIETHYLVANILLAMIDE

Legislative or regulation action

Product Name **Etamivan in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA	**Feb 1994**	The Ministry of Public Health has decided to withdraw all combination pharmaceutical products containing etamivan, including etamivan/etofylline and etamivan/hexobendine dihydrochloride. Single component injectable and oral solution formulations will remain available but have been rescheduled as "specially controlled drugs" for use in hospitals only. (Reference: (THAFDA) Communication to WHO, , , 08 Feb 1994) **WHO Comment : Etamivan is a central and respiratory stimulant.**

Product Name **Ethinylestradiol/methyltestosterone**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
BGD	**1982**	Combinations of ethinyl estradiol and methyltestosterone were banned under the provisions of the Drugs (Control) Ordinance. They were subject to misuse and had been associated with carcinogenic properties, menstrual irregularities, increased blood pressure and uterine bleeding. (Reference: (BGDCO) The Drugs (Control) Ordinance, , , 1982)

Product Name **Etidocaine hydrocloride/epinephrine tartrate**

Scientific and common names, and synonyms

EPINEPHRINE TARTRATE/ETIDOCAINE HYDROCHLORIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Mar 1977**	This combination, for use as an anesthetic and analgesic, has been disapproved. Hypertensive crisis may result when used on individuals with high blood pressure.

Product Name **Fluphenazine and nortriptyline**

C.A.S. number **2003-1-1003**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**2000**	This combination was suspended due to the unfavourable risk-benefit ratio; the combination of the neuroleptic agent and the antidepressant provided no special advantage while exposing the patients to unjustifiable risk. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)

Product Name **Gangliosides**

Legislative or regulative action

Legislative or regulation action

Product Name **Gangliosides**

Country	Effective Date	Description of action taken Grounds for decision
BRA	**Jun 2001**	Registration has been cancelled due to association with cases of Guillain-Barre Syndrome. Some cases were fatal. (Reference: (BRARES) Resolucao n., 527/ANVISA, , 08 June 2001)

Product Name **Guaifenesin/camphor/ether**

Scientific and common names, and synonyms

CAMPHOR/GUAIFENESIN/ETHER

ETHER/CAMPHOR/GUIFENESIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Nov 1983**	Combinations of these ingredients mixed with an alcohol (e.g. phenol, cincol, eucalyptol, chlorobutanol) are being phased out of use since they are ineffective in cough relief and may cause lipodystrophy and lipoid pneumonia.

Product Name **Herbal dietary supplements**

C.A.S. number **2003-1-5001**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CAN	**Feb 2002**	The manufacturer has issued a product recall for herbal medicines PC-SPES and SPES since these products were found to contain warfarin and alprazolam, respectively. Consumers have been advised to stop using these products and consult their physicians. (Reference: (CANWHC) Warnings/Advisories, , , 08 Feb 2002)
IRL	**Feb 2002**	The manufacturer has issued a product recall for herbal medicines PC-SPES and SPES since these products were found to contain warfarin and alprazolam, respectively. Consumers have been advised to stop using these products and consult their physicians. (Reference: (IRLCN) Current News & IMB Statements, , , 15 Feb 2002)
USA	**Feb 2002**	The manufacturer has issued a product recall for herbal medicines PC-SPES and SPES since these products were found to contain warfarin and alprazolam, respectively. Consumers have been advised to stop using these products and consult their physicians. (Reference: (USAOPA) Warning, , , Feb 2002)

Product Name **Hormonal pregnancy tests**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**1970**	Withdrawn from the market.
USA	**Feb 1975**	The combination of norethindrone acetate and ethinyl estradiol has been withdrawn from the market by the Food and Drug Administration as a presumptive test for pregnancy due to a lack of proof of safety for that use in view of the potential danger in the presence of pregnancy and the availability of accurate alternatives. Prohibited for export.

Product Name **Hormonal pregnancy tests**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	1977	Owing to evidence of congenital abnormalities, these products were withdrawn by the manufacturer.
AUT	1978	Withdrawn in view of their apparent association with birth defects.
BEL	1978	Withdrawn from the market following consideration of the evidence associating their use with birth defects.
DEU	1978	Withdrawn from the market.
ITA	1978	Withdrawn from the market.
SGP	Apr 1978	Banned for importation.
ETH	1979	Estrogen/progestogen preparations should no longer be promoted for pregnancy testing. This use should be included among the contraindications listed in package inserts.
GRC	1980	All preparations containing estrogens and progestogens intended for pregnancy testing were withdrawn.
NZL		Voluntarily withdrawn from the market.
SAU		In view of their association with birth defects, all such estrogen/progestogen preparations are not recommended for use.
THA		Pregnancy tests with a combination of norethisterone and estradiol are prohibited.
VEN		Not approved for use and/or sale.
ZAF		Preparations for oral use are not indicated and may not be promoted for pregnancy testing, based on information received from the World Health Organization.

Product Name **Hydrochlorothiazide/potassium**

Scientific and common names, and synonyms

POTASSIUM/HYDROCHLOROTHIAZIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM		Products with this combination of ingredients have been prohibited for use and/or sale since they have been shown to cause small bowl ulceration.

Bibliographical references

IARC MONOGRAPH, 50, 337, 1990

Product Name **Hydroxyquinolines in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IND	Feb 1996	The Drug Controller of India has banned the manufacture, sale and distribution of fixed-dose combinations of hydroxyquinolines with other drugs, except for preparations intended for external use. This action has been taken because the fixed-dose combination products are considered either as not having the therapeutic value claimed or they contain ingredients and in quantities for which there is no therapeutic justification.

Product Name **Hydroxyquinolines in combination**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		(Reference: (INDEPH) The Eastern Pharmacist, , , Feb 1996)

Product Name **Iron preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1997**	The Food and Drug Administration has required warning statements in the product information on products taken in solid oral dosage form: " WARNING: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or a poison control centre immediately". (Reference: (FEREAC) Federal Register, 62(10) , p. 2218, 1997) **WHO Comment : The toxicity of oral iron preparations to children is the result of their corrosive effect on gastrointestinal mucosa, internal haemorrhage and cardiovascular collapse. Parenteral iron preparations may cause a variety of adverse effects of which the anaphylactic reaction is the most dangerous. Ferrous salts for peroral use are listed in the WHO Model List of Essential Drugs. Iron dextran is listed as an example of a therapeutic group.**

Product Name **Kaolin and pectin**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
YEM	**1998**	The Supreme Board of Drugs and Medical Devices has withdrawn the suspension formulation of the kaolin and pectin because of a lack of evidence of efficacy in the management of diarrhoea. (Reference: (YEMCW) Communications to WHO, , , 10 Oct 1998)

Product Name **Kava products**

C.A.S. number **2003-1-5002**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CHE	**Apr 2001**	Acetone extract of kava root was withdrawn due to unfavourable benefit-risk profile and associations with hepatic injury.
CHE	**Sep 2001**	Kava ethanol extract products have been moved from OTC to 'pharmacy only' status as a precautionary measure. (Reference: (CHEPR) Press Release, , , June 2002)
DEU	**Jun 2002**	The Federal Institute of Germany has withdrawn all kava-containing pharmaceutical products and homeopathic products with dilutions up to D4 due to hepatotoxic risks and insufficient data on efficacy with these products. (Reference: (DEUCW) Communication to WHO, , , 17 June 2002)

Product Name **Kava products**

C.A.S. number **2003-1-5002**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IRL	**Jul 2002**	The Irish Medicines Board has decided to maintain the on-going voluntary withdrawal of all kava containing products that was initiated in February 2002. This decision follows the German Regulatory Authority's conclusion that kava products have an unfavourable risk-benefit profile. (Reference: (IRLPSI) Kava Statement, , ,)
SGP	**Jul 2002**	The Singapore Health Sciences Authority (HAS) is proceeding to gazette kava-kava and its constituents under the Poisons Act to prohibit importation following German Regulatory measures for kava. (Reference: (SGPPR) Press Release, , , 25 July 2002)
AUS	**Aug 2002**	Australia's Therapeutic Goods Administration (TGA) has initiated a voluntary recall of all complementary medicines containing the herb kava. The action follows the death of a woman in Australia who used a medicine containing kava. The TGA will undertake further evaluation to determine additional regulatory measures. (Reference: (AUSMDR) Media Release, TW20/02, , 15 Aug 2002)
CAN	**Aug 2002**	Health Canada has ordered a stop-sale and recall of all kava-containing products from the Canadian market following Canadian and worldwide reports of liver failure. (Reference: (CANWHC) Warnings/Advisories, , , 21 Aug 2002)
GBR	**Dec 2002**	An order prohibiting the supply of medicinal products containing kava has been issued in the UK following the UK Medicines Control Agency's investigation into cases of liver toxicity from kava. (Reference: (GBRKPR) MCA Press Release, 2002/0528, , 20 Dec 2002)

Product Name **Lidocaine, salicylic acid and chloral hydrate**

C.A.S. number **2003-1-1004**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Aug 2001**	Withdrawn due to the mutagenic and carcinogenic potential of chloral hydrate which make its use unfavourable in the treatment of buccal infections or as an oral rinse in stomatologic procedures. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)

Product Name **Loratadine and pseudoephedrine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**2000**	The Department of Health Bureau of Food and Drugs has banned and withdrawn the fixed-dose combination, loratadine + pseudoephedrine. (Reference: (PHADO) Administrative Order, (99) s. 2000, , 09 Aug 2000)

Product Name **Medroxyprogesterone acetate/ethinylestradiol**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Medroxyprogesterone acetate/ethinylestradiol**

Scientific and common names, and synonyms

ETHINYLESTRADIOL/MEDROXYPROGESTERONE ACETATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA		Withdrawn from the market and prohibited for export by the Food and Drug Administration after studies in dogs showed an increased incidence of mammary tumors from the medroxyprogesterone acetate component.

Product Name **Meprobamate/diazepines**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1980**	Withdrawn from the market since the combination is considered unacceptable having regard to the higher incidence of adverse reactions than reported with monocomponent preparations.

Product Name **Mepyramine maleate/pamabrom**

Scientific and common names, and synonyms

PYRILAMINE MALEATE/PAMABROM

PAMABROM/PYRILAMINE MALEATE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**1974**	Combinations of pamabrom and mepyramine maleate (pyrilamine maleate) have been withdrawn from the market.

Product Name **Mercuric derivatives (topical)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Jul 1969**	Aminomercuric chloride was banned by the Pharmaceutical Affairs Bureau due to skin disorders associated with long-term use.
BRA	**15 Jul 1980**	Products containing mercuric derivatives, with the exception of merbromin and thiomersal, are prohibited. (Reference: (BRAPT) Portaria do Servico Publico Federal, No.10, , July 1980)
PHL	**Nov 1983**	Mercury-based products for topical use are being phased out due to dubious efficacy and safety.
FRA	**19 Dec 1986**	The Ministry of Health has decided to withdraw dermatological preparations containing ammoniated mercury following a warning that such products may produce allergic reactions and mercury intoxication. (Reference: (FRAPC) Press Communiqué, , , Dec 1986)

Product Name **Mercuric derivatives (topical)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NGA	**1988**	All soaps containing mercury compounds have been banned. (Reference: (NGAPN) Pharmanews, 10(11), 15, 1988)
GHA	**1 Sep 1989**	All mercury based soaps have been banned. (Reference: (GHAPDR) Pharmacy and Drugs (Banned Drugs) Regulations, Legislative Instruments, 1484, , 1989)
CAN	**Apr 1997**	Health Canada has warned consumers not to use DianaR Cream (Diana de Beauté), a product that is used for skin lightening, mainly by Afro and Caribbean communities. The product, which is manufactured in the Lebanon, has not been approved for sale in Canada and is being illegally imported. It contains ammoniated mercury, bismuth subnitrate and salicylic acid and the mercury content poses a high risk of mercury poisoning in adults and a serious health hazard to unborn and nursing infants of women who use the product. (Reference: (CANPR) Press Release, 1997-28, , 18 Apr 1997)
ITA		Withdrawn from the market owing to an unfavourable risk-benefit ratio and the lack of substantial evidence of efficacy. **WHO Comment : Mercuric derivatives were formerly widely available in topical anti-infective preparations. The hazards associated with their use, including hypersensitivity and allergy, outweigh any therapeutic benefit and such preparations have been withdrawn in many countries. Systemic absorption has resulted in chronic mercury poisoning and acrodynia (pink disease) in children.**

Product Name **Metamizole sodium, fenpiverinium bromide and pitofenone hcl**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
LTH	**May 2000**	The State Medicines Control Agency has not renewed marketing authorization for combination products of metamizole socium, fenpiverinium bromide and pitofenone hydrochloride for reasons of safety. (Reference: (LTHMCA) Order of State Medicines Control Agency, No. 8, , 22 Sep 2000)

Product Name **Metoclopramide/polidocanol**

Scientific and common names, and synonyms

POLIDOCANOL/METOCLOPRAMIDE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**Mar 1983**	Disapproved for use in gastrointestinal disturbances since marked liver toxicity limits its therapeutic use.

Product Name **Neomycin sulfate/polymyxin bisulfate/nystatin/acetarsol**

Legislative or regulation action

Product Name **Neomycin sulfate/polymyxin bisulfate/nystatin/acetarsol**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	Sep 1977	This combination, for use in trichomonal vaginitis, has been disapproved due to the irrational and potentially harmful nature of the combination, which is not shown to be more effective than its individual ingredients given separately in appropriate doses.

Product Name **Nitrates**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MYS	1994	The Drug Control Authority has decided that package inserts for all nitrates for stable angina pectoris be amended to include the following statement: "Development of tolerance may occur with all forms of nitrate therapy, particularly with the long active preparations that maintain continuously high plasma nitrate concentration". (Reference: (MYSDI) Berita Ubat-Ubatan (Drug Information), 8(2): 4, , 1994) **WHO Comment : Glyceryl trinitrate (nitroglycerin) and isosorbide dinitrate are listed in the WHO Model List of Essential Drugs.**

Product Name **Nonsteroidal anti-inflammatory agents**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	16 Oct 1995	In the context of its review of marketed products, the Federal Institute for Drugs and Medical Devices has announced that the product information for nonsteroidal anti-inflammatory agents for systemic use (54 agents, including ibuprofen, ketoprofen and naproxen) has been modified to state in the section on adverse reactions that, in rare cases, a time correlation has been observed between the systemic administration of nonsteroidal anti-inflammatory agents and a worsening of the infection-induced inflammation (e.g. the development of necrotizing fasciitis), probably due to the mechanism of NSAIDs. If, during treatment with an NSAID, worsening of existing symptoms occurs or signs of new infection appear, the patient should be advised to consult his/her physician immediately. An assessment should be made to ascertain whether anti-infective/antibiotic therapy is appropriate. (Reference: (DEUNFI) Notification, , , 16 Oct 1995) **WHO Comment : Qualitatively the tolerability of all nonsteroidal anti- inflammatory agents is similar. Ibuprofen is listed in the WHO Model List of Essential Drugs.**

Product Name **Oral contraceptives (third generation)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	Oct 1995	The Committee on Safety of Medicines has recommended that women who are taking combined oral contraceptives containing gestodene or desogestrel should complete their current cycle. The risks associated with unwanted pregnancies are far greater than the

Product Name **Oral contraceptives (third generation)**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		risks associated with these pills. Combined oral contraceptives containing gestodene or desogestrel should not be used by women with risk factors for venous thromboembolism (e.g. obesity) and should only be used by women who are intolerant of other combined contraceptives and who are prepared to accept an increased risk of thromboembolism. (Reference: (GBRCW) Communication, , , 18 Oct 1995)
NOR	**Dec 1995**	The Norwegian Medicines Control Authority has restricted the indications for oral contraceptives containing desogestrel or gestodene to oral contraception where other oral contraceptives are not considered suitable. (Reference: (NORMCA) Norwegian Medicines Control Authority, , , 20 Dec 1995)
CHE	**14 Dec 1995**	The Intercantonal Office for the Control of Medicines has revised the product information for combined oral contraceptives containing gestodene or desogestrel to include a statement concerning risk factors that should be taken into account when prescribing these products. Contraindications include a history of pulmonary embolism or venous thromboembolism or a high incidence in the family (cases of venous thromboembolism in close relatives in their youth). Caution must be exercised in women with pronounced obesity and in mature women with serious varicose veins. (Reference: (CHEOCM) Statement on venous thrombosis and "pills", , , 18 Apr 1996)
NZL	**Jul 1996**	It is recommended that, because of the higher risk of venous thrombo- embolism with the third generation oral contraceptives compared with earlier combined oral contraceptives, in women who have no contraindications to the use of a combined low dose oral contraceptive and have indicated that they wish to take a combined oral contraceptive, consideration should be given to prescribing a low dose combined oral contraceptive containing no more than 35 micrograms ethinylestradiol and a progestogen other than desogestrel or gestodene. (Reference: (NZLPU) Prescriber Update, No.12, , July 1996) **WHO Comment : Data from three independently conducted epidemiological studies have raised the problem of thromboembolic risks associated with combination oral contraceptives containing desogestrel or gestodene (so-called third generation oral contraceptives) in comparison with the same type of risk associated with the levonorgestrel-containing oral contraceptives (so-called second generation contraceptives). There are differences between countries in the evaluation of risks associated with different combination oral contraceptives. There is no plausible biological explanation for the differences between the two groups of oral contraceptives; however, inherent biases cannot be excluded. Thus the matter remains open.**

Product Name **Oral sodium phosphate bowel preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NZL	**Apr 1998**	Oral sodium phosphate bowel preparations have been reclassified to Prescription Medicine, because of the risk of potentially life-threatening dehydration and electrolyte imbalance with incorrect use. (Reference: (NZLPU) Prescriber Update, No.16, , Apr 1998)
USA	**21 May 1998**	Following reports of deaths associated with an overdosage of sodium phosphates oral solution when the product was packaged in a larger-size container and a larger than intended dose was ingested inadvertently, the Food and Drug Administration has limited the container size for sodium phosphates oral solution (dibasic sodium phosphate/

Product Name **Oral sodium phosphate bowel preparations**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		monobasic sodium phosphate oral solution) to not greater than 90 ml when used as an over-the-counter (OTC) laxative drug product. The agency has also required warning and direction statements to inform consumers that exceeding the recommended dose of oral and rectal sodium phosphates products in a 24-hour period can be harmful. (Reference: (FEREAC) Federal Register, 63(98) , p. 27836, 1998)

Product Name **Pancreatic enzymes**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Jul 1994**	The Health Authorities have issued a warning and modified the product information of all pancreatic enzyme preparations alerting prescribers that cases of bowel strictures have been reported in children from 3 to 13 years old and including a maximum recommended dosage. (Reference: (FRAAMN) Notification, , , 01 Aug 1994)
GBR	**Nov 1995**	The Committee on Safety of Medicines issued a warning about reports of fibrosing colonopathy (bowel strictures) occurring in children aged between 3 and 13 years with cystic fibrosis who were receiving high-dose pancreatic enzyme preparations. The Committee recommends that the total dose of pancreatic enzyme supplements used in children should not usually exceed 10,000 units of lipase per kg body weight per day. (Reference: (GBRCW) Communication, , , 21 Dec 1993) (Reference: (GBRCPP) Current Problems in Pharmacovigilance, (20) Nov 1994, & (21), Nov 1995)
NZL	**Jul 1996**	Pancreatic enzymes were reclassified to Prescription Medicine, and doctors were advised to warn patients not to use more than 10,000 units of lipase per kg of body weight per day. (Reference: (NZLPU) Prescriber Update, No.12, , July 1996)

Product Name **Paracetamol/methionine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	**Apr 1997**	SmithKline Beecham has decided to withdraw its combination paracetamol/methionine product (Pameton) from sale in pharmacies because evidence exists that links excess dietary intake of methionine to clinical problems. A review of the data suggested that methionine offers no additional benefit to regular paracetamol in normal use and therefore it should be made available only on direct request to the company for use in cases where there is a risk of self-poisoning. (Reference: (GBRSKB) Communication, , , 21 Apr 1997) (Reference: (GBRMCA) Communication to WHO, , , 26 Mar 1997)

Product Name **Penicillin/streptomycin**

Legislative or regulation action

Product Name **Penicillin/streptomycin**

Scientific and common names, and synonyms

STREPTOMYCIN/PENICILLIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	1978	Withdrawn from the market having regard to an unacceptable benefit-to-risk ratio.
IND	May 1995	The Drugs Technical Advisory board has recommended that fixed-dose combinations of penicillin and streptomycin should be banned from manufacture and sale, since the use of this combination in enterococcal endocarditis or pre-surgical sterilization cannot be justified in view of the availability of other broad-spectrum antibiotics. (Reference: (INDEPH) The Eastern Pharmacist, , , May 1995)
IND	Jan 1998	The Ministry of Health and Family Welfare, Department of Health, has prohibited the manufacture and sale of parenteral preparations containing fixed dose combinations of streptomycin with penicillins because it has been concluded that fixed dose combinations of streptomycin with penicillins do not have the therapeutic value claimed or purported to be claimed for them. (Reference: (INDEPH) The Eastern Pharmacist, , , Sep 1997) **WHO Comment : Streptomycin and penicillin are listed separately in the WHO Model List of Essential Drugs.**

Product Name **Penicillin/tetracycline**

Scientific and common names, and synonyms

TETRACYCLINE/PENICILLIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	1975	Withdrawn from the market having regard to its low benefit-to-risk ratio.
ITA	1977	These products intended for general use have been withdrawn from the market owing to suspected liver toxicity.

Product Name **Phenformin/chlorpropamide**

Scientific and common names, and synonyms

CHLORPROPAMIDE/PHENFORMIN

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	1986	Withdrawn from the market having regard to its low benefit-to-risk ratio.

Product Name **Phenobarbital, difebarbamate and febarbamate (Tetrabamate)**

C.A.S. number **2003-1-1005**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision

Legislative or regulation action

Product Name **Phenobarbital, difebarbamate and febarbamate (Tetrabamate)**

C.A.S. number **2003-1-1005**

FRA	**Mar 2001**	The combination of febarbamate, difebarbamate and phenobarbital has been withdrawn in France due to reports of serious hepatic effects and cutaneous reactions including Lyell syndrome. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)
ESP	**May 2002**	The Spanish Committee on the Safety of Medicines has ordered the suspension of tetrabamate (a complex of phenobarbital, difebarbamate and febarbamate) due to reports of hepatotoxicity and the unfavourable risk-benefit ratio. (Reference: (ESPCDR) Communication on Drug Risks, No. 2002/04, , 03 May 2002)

Product Name **Phlebotonics**

C.A.S. number **2003-1-5003**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
ESP	**Sep 2002**	The Spanish Medicines Agency has withdrawn the marketing authorization for several oral vascular disorder therapies (phlebotonics) including those containing diosmin, horse chestnut extract, naftazone and troxerutin because of unfavourable risk-benefit profile. Calcium dobesilate has been restricted to the treatment of diabetic retinopathy while all other oral vascular therapies remaining on the market are authorized only for the short-term relief (2-3 months) of oedema and other symptoms of chronic venous insufficiency. (Reference: (ESPMAD) Doccument, 2002/09, , 10 Sep 2002)

Product Name **Pipradol/hesperidin**

Scientific and common names, and synonyms

HESPERIDIN/PIPRADOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM		Products with this combination of ingredients have been prohibited for use and/or sale since they have been found to be harmful.

Product Name **Prednisolone/phenobarbital**

Scientific and common names, and synonyms

PHENOBARBITAL/PREDNISOLONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
THA		Not permitted in combination for the treatment of asthma.

Product Name **Promethazine in combination**

Legislative or regulative action

Legislative or regulation action

Product Name **Promethazine in combination**

Country	Effective Date	Description of action taken Grounds for decision
USA	**Sep 1989**	Combination preparations containing promethazine, indicated for the symptomatic relief of upper respiratory infections, were subjected to prescription control because their use in children of less than two years of age had been associated with sudden infant death syndrome. Concern was also raised about their potential to induce extrapyramidal disorders. In the light of these concerns, two combination preparations were voluntarily withdrawn by the manufacturer in 1991. (Reference: (FEREAC) Federal Register, 58(50), 10904, 1991) **WHO Comment : See WHO comment for H1-antihistamines.**

Product Name **Pseudoephedrine and phenylpropanolamine**

Scientific and common names, and synonyms

D-ISOEPHEDRINE.D-?-EPHEDRINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
MAR	**Aug 1999**	The Commission for Pharmacovigilance in Morocco decided to restrict the use of all drug products containing pseudoephedrine or phenylpropanolamine to adults and has prohibited their use in children under 12 years. The products have also been subjected to prescription control. This decision was taken following reports of serious risks to health associated with the intake of these vasoconstrictors, including 83 neuropsychiatric effects, 4 cardiovascular problems and 2 deaths. Therefore the French Agency of Medicines has restricted the use of pseudoephedrine and phenylpropanolamine products for adults. (Reference: (MARDMP) Letter to WHO, , , 24 Aug 1999)
OMN	**2000**	The Directorate General of Pharmaceutical Affairs & Drug Control has restricted the prescribing of any preparation containing phenylproanolamine hydrochloride or pseudoephedrine hydrochloride to adults and children over 2 years of age. This action has been taken following the results of research performed by the French Commission for Pharmacovigilance which revealed serious risks to health associated with the intake of these vasoconstrictors in paediatric use. (Reference: (OMNCR) Circular, No. 3/2000, , 13 May 2000)

Product Name **Pyrazolones in combination (see also aminophenazone, metamizole so**

Scientific and common names, and synonyms

AMIDOPYRINE

ISOPYRINE

METAMIZOLE SODIUM

NIFENAZONE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
JPN	**Sep 1977**	The Central Pharmaceutical Affairs Council recommended that, because of their propensity to cause skin eruptions and shock, pyrazolones should no longer be included in proprietary cold medicines or in antipyretic-analgesic preparations available without a doctor's prescription.

Product Name **Pyrazolones in combination (see also aminophenazone, metamizole so**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
PHL	**May 1979**	Several combination products containing pyrazolones have been disapproved for use.
GRC	**Oct 1980**	The Ministry of Health and Welfare has severely restricted the use and sale of these products for domestic use. (Reference: (GRAGA) Ministry of Health Decision, No.7116, , July 1983)
DEU	**1982**	Eighty analgesic preparations containing a pyrazolone in combination with another active compound were withdrawn from sale either: 1) because their indications were not consonant with those approved by the Federal Health Office, or 2) on suspicion that the other active constituent might potentiate the accepted known risk of the pyrazolone component. These actions were largely directed against drugs containing metamizole sodium, but products containing isopyrine and nifenazone were also implicated. The situation is complex, however, since preparations containing one or more active ingredient remain on the market.
DEU	**1983**	Labelling for certain pyrazolone-containing drugs was recently revised to limit indications for use. Substances affected include: metamizole, isopropylaminophenazone, nifenazone, propyphenazone, phenazone and morazone. Indications were limited to the treatment of acute severe pain, such as post-traumatic and post-operative pain and colic, and high fever unresponsive to other therapy. Specific contraindications include use in inflammatory arthroses, conditions predisposing to shock or bone marrow depression, known allergy to pyrazolones and phenylbutazone, and certain metabolic deficiencies such as hepatic porphyria. The importance of weighing the need for treatment against the slight but life-threatening risks of anaphylactic shock and agranulocytosis is stressed.
ISR	**1983**	The Pharmaceutical Administration of the Ministry of Health has suspended all combination products containing noramidopyrine methanesulfonate sodium (metamizole sodium).
ITA	**1989**	Having regard to the adverse effects associated with their long-term use, products containing pyrazolones may now be indicated only for the short-term treatment of severe acute pain or pyrexia. (Reference: (BIFTI) Bolletino d'Informazione sui Farmaci, 13(2), 5, 1989)
MEX		Combinations of pyrazolones with antihistamines, vasoconstrictors, decongestants, muscle relaxants, antibiotics or vitamins are prohibited due to the toxic properties of pyrazolones.
SAU		All pyrazolones are used only under prescription.
		WHO Comment : Pyrazolone derivatives, which include aminophenazone, metamizole sodium, phenylbutazone and propyphenazone have been associated with serious adverse effects. Since safer alternatives are widely available some regulatory authorities have withdrawn or severely restricted all pharmaceutical preparations containing pyrazolone derivatives. See also WHO comments for aminophenazone, metamizole sodium, phenylbutazone and propyphenazone.

Product Name **Pyrethroids**

Scientific and common names, and synonyms

BIOALLETHRIN

CARBARIL

PHENOTHRIN

PERMETHRIN

TETRAMETHRIN

Legislative or regulation action

Product Name **Pyrethroids**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
OMN	**1997**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of pyrethroids such as bioallethrin, permethrin, phenothrin, tetramethrin and carbaril in all parasiticidal preparations because of a potential risk of carcinogenicity. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)
OMN	**Dec 1997**	The Directorate General of Pharmaceutical Affairs & Drug Control has prohibited the registration, import and sale of pyrethroids such as bioallethrin, permethrin, phenothrin, tetramethrin and carbaril in all parasiticidal preparations because of a potential risk of carcinogenicity. (Reference: (OMNPN) Pharmaceutical Newsletter, 5(4): 8, , 1997)

Product Name **Quinidine/verapamil**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DEU	**1996**	In order to minimize the risks associated with fixed combination products containing the antiarrhythmics quinidine and verapamil, the Federal Institute for Drugs and Medical Devices has restricted the indications to: cardioversion in vestibular flutter and fibrillation when electrocardioversion cannot be carried out, and recurrent chronic vestibular flutter after successful conversion with this drug in patients in whom restoration of the sinus rhythm has led to an improvement of severe symptoms. (Reference: (DAZ) Deutsche Apotheker Zeitung, 136(29):2438, , 1996) **WHO Comment : Quinidine and verapamil are listed separately in theWHO Model List of Essential Drugs.**

Product Name **Quinolone antimicrobial agents**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
NOR	**Jun 1993**	The Medicines Control Authority has decided to restrict the indications for parenteral formulations of the quinolone antibiotics, ciprofloxacin (Ciproxin: Bayer) and ofloxacin (Tarivid: Hoechst) as follow: (1) Parenteral ciprofloxacin: severe salmonella infections, complicated urinary tract infections and osteomyelitis due to sensitive gram-negative staphylococci when oral treatment is not possible. (2) Parenteral ofloxacin: complicated urinary tract infections due to sensitive gram-negative staphylococci when oral treatment is not possible. Because of the risk of development of resistance, ciprofloxacin is not approved for treatment of sepsis. The Medicines Control Authority emphasizes that parenteral treatment with quinolone antibiotics should only be carried out in a hospital. (Reference: (NNSLM) Nytt fra Statens Legemiddelkontroll, No.2, p.3, 1993)
JPN	**Oct 1994**	The Pharmaceutical Affairs Bureau has amended the product information for enoxacin, fleroxacin, norfloxacin, sparfloxacin and tosufloxacin tosilate to state that rhabdomyolysis may occur. (Reference: (JPNARD) Information on Adverse Reactions to Drugs, No.128, , Oct 1994)
LKA	**Nov 1996**	The Drug Evaluation Sub-Committee has decided that the product information of fluoroquinolone antibiotics should include a warning stating: "The onset of tendon pain

Product Name **Quinolone antimicrobial agents**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		calls for immediate withdrawal of fluoroquinolone antibiotics." (Reference: (LKADES) Drug Evaluation Sub-Committee, 27th Meeting, , 26 Nov 1996) **WHO Comment : Since their introduction on the market in 1988 sporadic cases of tendinitis and rhabdomyolysis have been reported with quinolone antibacterial agents which are used in a large variety of infections.**

Product Name **Repaglinide and gemfibrozil**

C.A.S. number **2004-1-1002**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
EME	**21 May 2003**	The use of repaglinide is contraindicated with gemfibrozil. (Reference: (EMEAPS) Public statement, EMEA/11700/03, , 21 May 2003)

Product Name **Sulfathiazole sodium with sodium lactate or sodium bicarbonate**

Scientific and common names, and synonyms

SODIUM LACTATE/SULFATHIAZOLE SODIUM

SODIUM BICARBONATE/SULFATHIAZOLE SODIUM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
DOM		Combinations of sulfathiazole sodium with sodium lactate or sodium bicarbonate or other sulfonamides have been prohibited for use and/or sale since they have been associated with serious side effects and recent studies have shown them to be of questionable efficacy. The risks of these combinations have not been found to outweigh the benefits and other sulfonamides are available that present much lower risk with use.

Product Name **Superheporin**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
IDN	**1980**	Superheporin capsules, a traditional herbal mixture of angelica radix, ligustica rhizoma, salviae radix, pteropii excrementum and carthamic flos, has been withdrawn from sale following reports of congenital malformations in babies whose mothers had taken this compound in early pregnancy.
VEN		Not approved for use and/or sale.

Product Name **Tetracycline in combination**

Scientific and common names, and synonyms

Legislative or regulation action

Product Name **Tetracycline in combination**

Scientific and common names, and synonyms

CHLORAMPHENICOL/TETRACYCLINE

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	**1971**	This combination, for oral and parenteral use, was withdrawn from the market.
DOM		Tetracycline in combination with oleandomycin or with novobiocin is prohibited for use and/or sale since studies have shown that this combination can be hazardous to health.
VEN		Banned for use and/or sale.

Product Name **Theophylline/meprobamate/barbiturates**

Scientific and common names, and synonyms

BARBITURATES/MEPROBAMATE/THEOPHYLLINE

MEPROBAMATE/THEOPHYLLINE/BARBITURATES

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GRC	**1986**	Withdrawn from the market having regard to its low benefit-to-risk ratio (respiratory depression).

Product Name **Thiazides/potassium chloride**

Scientific and common names, and synonyms

POTASSIUM CHLORIDE/THIAZIDES

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
USA	**Oct 1971**	The combination of these two compounds, alone or with reserpine or rauwolfia serpentina, has been withdrawn from the market and prohibited for export by the Food and Drug Administration on the grounds that no adequate data demonstrating safety and efficacy exist. These combinations were used as diuretics to treat certain edemas due to cardiac, renal and hepatic failure, and to treat specific cases of hypertension. In its decision, the FDA cited cases of small-bowel lesions that had developed with the administration of these drugs, for which a causal relationship had not been excluded by appropriate tests.
SAU		Following reports of small bowel lesions resulting in ulcers, obstruction, haemorrhage and perforation, this combination was withdrawn.

Product Name **Tilbroquinol/tiliquinol**

Scientific and common names, and synonyms

7-BROMO-5-METHYL-8-QUINOLINOL / 5-METHYL-8-QUINOLINOL

Legislative or regulative action

Product Name **Tilbroquinol/tiliquinol**

Country	Effective Date	Description of action taken Grounds for decision
FRA	Jul 1997	The Agence du Médicament has decided that the therapeutic indications of tilbroquinol/tiliquinol (Intetrix®) will be restricted to the treatment of intestinal amoebiasis as an adjuvant to a tissular amoebicide, or as monotherapy in health carriers contaminated with interluminal amoebae. This decision was reached in the absence of efficacy data for the treatment of infectious diarrhoeas and because of the risk of liver toxicity. (Reference: (FRAAMI) Infofax - Pharmacovigilance, , , 04 July 1997)

Product Name **Tiratricol/cyclovalone/retinol**

Scientific and common names, and synonyms

CYCLOVALONE/TIRATRICOL/RETINOL

RETINOL/CYCLOVALONE/TIRATRICOL

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
FRA	30 Oct 1988	A preparation containing an association of tiratricol, cyclovalone and retinol has been withdrawn from the market. (Reference: (FRARP) La Revue Prescrire, 9(81), 18, 1989) **WHO Comment : This combination product, indicated for the treatment of obesity, has not been demonstrated to possess anytherapeutic effect and has been associated with cases of cellular hepatitis, of which at least one was fatal. It is not yet known which of the constituents is the causative agent.**

Product Name **Trancylopramine and trifluoperazine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
GBR	1999	The licence for the antidepressant, trancylopramine and trifluorperazine has not been renewed by the Committee on Safety of Medicines because of concerns over drug interactions and the risk of severe hypertensive crises. As a result the company have withdrawn the product from the market. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol. 25, , June 1999)

Product Name **Trimethoprim/sulfamethoxazole**

C.A.S. number **8064-90-2**

Scientific and common names, and synonyms

CO-TRIMOXAZOLE

SULFAMETHOXAZOLE/TRIMETHOPRIM

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
SWE	1987	The approved indications for products containing trimethoprim and sulfamethoxazole were restricted to exclude the treatment of urinary tract infections, having regard to the

Product Name **Trimethoprim/sulfamethoxazole**

C.A.S. number **8064-90-2**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
		association of these combination products with severe and even fatal adverse effects, including sensitivity reactions, mucocutaneous syndrome, blood dyscrasias and hepatic disorders. A similar restriction applies to products containing trimethoprim and sulfadiazine. (Reference: (SSLMS) Information från Socialstyrelsens Läekemedelsavdelning, 3(12), 48, 1987)
IRL	**Jun 1987**	Products containing trimethoprim and sulfamethoxazole may now be indicated only for respiratory and urinary tract infections, on the grounds that they are associated with a greater risk of adverse effects, in particular in the elderly, including potentially fatal cases of blood dyscrasias and erythema multiforme, than other commonly used anti-infectives. (Reference: (IRDAB) National Drugs Advisory Board Annual Report, , 26, 1987)
GBR	**Jul 1995**	In view of reports of serious adverse reactions, blood dyscrasias and generalized skin disorders, the Committee on Safety of Medicines recommends that the use of trimethoprim/sulfamethoxazole (co-trimoxazole) should be limited to : Pneumocystis carinii pneumonia; toxoplasmosis and nocardiasis; acute exacerbations of chronic bronchitis and infections of the urinary tract when there is bacteriological evidence of sensitivity to trimethoprim/sulfamethoxazole and good reason to prefer this to single antibiotics. (Reference: (GBRCPP) Current Problems in Pharmacovigilance, Vol.21, , July 1995) **WHO Comment : The combination of sulfamethoxazole and trimethoprim (5:1) was introduced in 1971 for the treatment of a wide variety of bacterial infections. Its use has been associated with severe sensitivity reactions, many of which have been attributed to the sulphonamide component. Elderly people seem to be more vulnerable. The World Health Organization has no information further to the above concerning restrictive action taken on this combination. Trimethoprim/sulfamethoxazole is listed in the WHO Model List of Essential Drugs.**

Product Name **Tyrothricin/fomocaine/diphenhydramine**

Legislative or regulative action

Country	Effective Date	Description of action taken Grounds for decision
CYP	**23 Oct 1992**	The Drugs Council decided to withdraw the marketing approval for a gel preparation containing tyrothricin0.1%, fomocaine hydrochloride 2.5% and diphenhydramine 1% used for the treatment of wounds and burns. The decision also applies to the powder formulation. (Reference: (CYPPS) Pharmaceutical Services, Ministry of Health, , , 23 Oct 1992) **WHO Comment : Tyrothricin, fomocaine and diphenhydramine is a combination of antimicrobial, local anaesthetic and H1 receptor antagonist respectively. Tyrothricin, which is a mixture containing gramacidin and tyrocidine, is too toxic to be administered systematically because of liver and kidney toxicity. The product has been removed on the grounds that absorption of tyrothricin through broken skin may result in renal myelotoxicity.**

Product Name **Xibornol and lidocaine**

C.A.S. number **2003-1-1006**

Legislative or regulative action

Legislative or regulation action

Product Name	**Xibornol and lidocaine**
C.A.S. number	**2003-1-1006**

Country	Effective Date	Description of action taken Grounds for decision
FRA	**Apr 2001**	Suspended due to grave allergic reactions including oedema of Quincke, anaphylaxis and bullous eruptions associated with xibornol. (Reference: (FRACW) Communication to WHO, , , 05 Oct 2001)

Legislative or regulation action

Product Name **Acetanilide**
C.A.S. number **103-84-4**

Trade and brand names

Acetanil	Capsula dr. knapf	Digiseb
Phenalgin		

For regulatory information, see page 31

Product Name **Acetarsol**
C.A.S. number **97-44-9**

Trade and brand names

190 f	Acetarsolum	Acetarsone
Acetphenarsine	Acetylarsan	Amarson
Amoebal	Arsabott	Arsaphen
Arsonine	Auryphan	Chrlich 594
Collarsin	Devegan	Dispericida
Dynarsan	Edoiacolo	Ehrlich 594
F 190	Fluryl	Fourneau 190
Ginarsol	Goyl	Gynoplix
Kharophen	Kharophene	Kubarsol
Limarsol	Monargan	Neo-vagex
Nilacid	Oralcid	Orarsan
Osarsal	Osarsol	Osarsole
Osvarsan	Pallacid	Paroxyl
Rvc	Spirozid	Stovarsol
Stovarsolan	Svc	Trichovan
Vagipurin	Vagisep	Vagival
Vagoflor		

For regulatory information, see page 31

Product Name **Acetylfuratrizine**
C.A.S. number **1789-26-0**

Trade and brand names

Panfuran	Panfuran-troche

For regulatory information, see page 32

Product Name **Acetylsalicylic acid (paediatric)**
C.A.S. number **50-78-2**

Trade and brand names

Aspirin	Compralgyl	Melabon
Rumicine	Salipran	Spalt
Tapal	Zorprin	

For regulatory information, see page 32

Product Name **Acitretin**
C.A.S. number **55079-83-9**

Trade and brand names

Etretin	Neotigason	Neotigason (r) 10
Neotigason roche 10 mg	Neotigason sauter kapsein 25 mg	Soriatane

For regulatory information, see page 35

Product Name **Acridine derivatives**
C.A.S. number **260-94-6**

Trade and brand names

Euflavin	Proflavin

For regulatory information, see page 36

Product Name **Alclofenac**
C.A.S. number **22131-79-9**

Trade and brand names

Allopydin	Allopydinac	Alopidin
Alopydin	Argan	Argun
Darkeyfenac	Desinflam	Epinal
Medifenac	Mervan	Mevan
Mirvan	Mirvan a	My 101
Neosten	Neoston	Prinalgin
Reufenac	Vanadian	W7320
W-7320	Zubirol	Zumaril

For regulatory information, see page 38

Product Name **Allergen extracts**
C.A.S. number **UN-87-0001**

Trade and brand names

A.d.l.	Alavac	Alavac-p
Alavac-s	Albay pure venom	Allpyral specific
Allpyral-d	Allpyral-g	Allpyral-mite fortified house dust
Aurafair	Auralgicin	Bencard skin testin solutions
Bencard-a	Conjuvac two grass	Glycerinated skin testing solutions
Merck skin testin solutions	Migen	Norisen
Norisen grass	Otipyrin	Pharmalgen
Pollinex	Rapifen	S.d.l.
Sdv specific desentistising caccine	Spectralgen	Spectralgen pollens
Suspal	Tyrivac	

For regulatory information, see page 39

Product Name **Aloxiprin**
C.A.S. number **9014-67-9**

Trade and brand names

Aloxipirine tablets	Lyman tabs	Palaprin forte
Paloxin	Palprin	Rumatral
Shin-rheufen	Superpyrin	Tiatral

For regulatory information, see page 40

Product Name **Alprostadil**
C.A.S. number **745-65-3**

Trade and brand names

Coverject	Liple	Minprog
Minprog pad	Postivas	Prostadin
Prostalgin	Prostandin	Prostavasin
Prostin vr pediatric	Prostin-vr	Prostivas

For regulatory information, see page 40

Product Name **Alprostadil**
C.A.S. number **745-65-3**

Trade and brand names

Product Name **Amfepramone**
C.A.S. number **90-84-6**

Trade and brand names

Adiposan	Adiposon	Adipyn
Alipid	Amfepromone	Anfamon
Anorex	Apisate	Bonumin
Brenalalit	Brendalit	Cegramine
Controlgras	D.i.p.	D.i.p.n
Danylen	Delgamer	Deramix
Derfon	Dietec	Dietil retard
Dietil-retard	Dobesin	Frekentine
Lineal-plus	Lineal-rivo	Lineal-valeas
Linea-valeas	Lipomin	Liposlim
Magrene	Menutil	Moderatan
Moderatan diffucap	Neobes	Nobensin-75
Nobensine	Nobesine	Nobesine-25
Nulobes	Obesitex	Perfamone
Prefamone	Propion	Redicres
Regenon	Regenon retard	Regibon
Sinapet	Slim-plus	Super emegrin
T-712	Tenuate	Tenuate dospan
Tenucap	Tepanil	Tylinal

For regulatory information, see page 42

Product Name **Amfetamine**
C.A.S. number **300-62-9**

Trade and brand names

Actedron	Adipan	Allodene
Amfetamin	Amfetasul	Amphamed
Amphedrine	Anorexine	Benzebar
Benzedrine	Benzolone	Bifentamin
Centramina	Dexamin	Dexatrine
Durophet	Elastonon	Finam
Isoamyn	Isomyn	Mecodrin
Neoton	Norphedrane	Novydrine
Novydrinene	Obesin	Obesine
Obesitab	Obetrol	Oktadrin
Ortedrine	Percomon	Perduretas anfetamina
Phenedrine	Phenopromin	Profamina
Propisamine	Raphetamine	Rhinalator
Simpamina	Simpatedrin	Simpatina
Sympamine	Sympatedrin	Sympatina
Synatan	Wekamine	Zedrine

For regulatory information, see page 42

Product Name **Aminoglutethimide**
C.A.S. number **125-84-8**

Trade and brand names

16038	Ba-16038	C-16038-ba
Crytraden	Cytadren	Doredin
Elipten	Mamomit	Orimeten
Ormeten		

For regulatory information, see page 44

Product Name **Aminophenazone**
C.A.S. number **58-15-1**

Trade and brand names

Adexogan	Agevis	Algimicin anttitermico
Amidazopen	Amidazophen	Amidazophene
Amidozen	Aminophenazonum	Anafebrin
Anafebrina	Aneuxol	Anoixal
Antigripina	Areumal	Axiston
Balbion	Barsedan	Baukal
Baukal suppositories	Bayer 1387 p	Bronchisan
Brufaneuseol	Brufaneuxol	Butapyrine
Capsyka dr knapf	Capysal	Chinopyrin
Cibalgin	Ciclazon	Clinit
Coffan	Compral	Cusayth
Demolpas	Dentigoa	Depiral c
Dereuma	Dexa escopyrin	Dha 51
Dialpyrin	Digisab	Dimametten
Dimapyrin	Dimopyrin	Dipirin
Diprin	Dipyrin	Dipyrine
Dolo-attirin	Dolo-optineural	Dolorphen
Dolovosano	Donobin	Duerin
Dysmensan	Escopyrinus	Espasnatex
Eufibran	Eunalgit	Euprogan
Febren	Febrinina	Febron
Febrosolvin	Fenodon	Fenodone
Fever	Flivalgin	Flumil
Fortalidon	Framidone	Ftalazon
Funapon	Galenopyrin	Glucopirina
Glucopitina	Helvagit-f	Hemicraneal
Hisense-p	Hyparon	Influnal depot
Inst	Irgapyrine	Isoftal
Itamidone	Kalmine	Katareuma
Lagaflex	Latepyrine	Lauroanginol
Mamallet-a	Manslu	Medispanmin
Melaforte	Meloka	Metapirazone
Netsusarin	Neuro-demoplast	Nifedon
Nikartrone	Nostress	Novamidon
Optalidon	Optineural(analgesic)	Optipax
Osadrine	Osmotipax	P.s.b.p.
Paralgin	Piracodid	Piradenil
Piradol	Piramidon	Piramidone
Pirasco	Piraseptolo	Piridol

Product Name **Aminophenazone**
C.A.S. number **58-15-1**

Trade and brand names

Piro rectal	Piromidina	Piroreumal
Pneumol	Polinalin	Premineat
Prontylin	Pyradon	Pyraelmedal
Pyramidon	Pyramidone	Pyrodin
Regitol	Remlomed	Reu-bon
Reumanova	Reumasedina	Reumo termina
Reumoftal	Reumotranc	Revulex
Rini c	Rinoplex	Sanglin
Sapotera	Sedafen	Selbon-a
Somnopyrin	Spasmo-barbanub	Spasmo-deterex
Spasmo-dimonil	Spasmo-tropax	Spasmovalin
Spasmoverlgin	Spasmus	Suppnon
Tonosan	Trogal	Tropax
Tsefokon	Tympagesic	Viadol
Waudobuzon		

For regulatory information, see page 44

Product Name **Aminophylline**
C.A.S. number **317-34-0**

Trade and brand names

Afonilum	Aminocardol	Aminodrox
Aminodur	Aminomal	Aminophylline
Aminophylline injection	Aminophylline mudrane	Aminophylline oral
Amino-slow	Amnivent	Asmafilin
Cardophyllin	Cardophylline	Carena
Carine	Colonofilin	Corfilamine
Corophyllin	Corophylline	Corphyllamin
Diaphylline	Duraphyllin	Escophylline
Ethophylline	Eudiamine	Eufilina
Euphyllin	Euphyllin 0.48	Euphyllin retard
Euphylllin cr	Euphylllina	Fadfilina
Godafilin	Inophylline	Jaa aminophylline
Mini-lix	Mudrane	Mudrane gg
Mundiphyllin	Myocardon	Palaran
Palaron	Pecram	Pecran
Peterphylin	Phyllocontin	Phyllotemp
Planphylline	Somophyllin	Somophyllin-12
Syntophyllin	Tefamin	Teophyllamin
Thodrox	Truphylline	Variaphylline

For regulatory information, see page 47

Product Name **Aminorex**
C.A.S. number **2207-50-3**

Trade and brand names

Aminoxafen	Aminoxaphen	Apiquel
Mcn 742	Menocil	

For regulatory information, see page 47

Product Name **Amitriptyline**
C.A.S. number **50-48-6**

Trade and brand names

Adepril	Amavil	Ami-anelun
Amilent	Amilit-ifi	Amineurin
Aminiurin	Amitimid	Amitril
Amitrip	Amitriptol	Amitrol
Amyline	Amyzol	Annolytin
Apo-amitriptylline	Apo-pram	Deprelio
Deprestal	Diapatal	Domical
Elatrol	Elatrolet	Elavil
Elavil plus	Emitrip	Endep
Enovil	Entrafon-210	Entrafon-2-10
Entrafon-2-25	Entrafon-a	Entrafon-forte
Etarfon	Etrafon-a	Etrafon-forte
Euplit	Laroxal	Laroxyl
Larozyl	Lentizol	Levat
Levate	Limbatarail	Limbatral
Limbitryl	Limitrol	Longopax
Loxaryl	Mareline	Meravil
Muaban d	Mutaban a/d/f	Mutabase
Nobrital	Normaln	Novotriptyn
Novotryptin	Novo-tryptin	Pantrop
Parks-plus	Pms levazine	Prouvil
Redomex	Saratem	Saroten
Sarotena	Sarotex	Sedans
Sk-amitriptyline	Sylvemid	Tensorelax
Teperin	Trepiline	Trepulin
Triavil	Triptizol	Triptonal
Triptpane	Trivial	Trivial-4-10
Trivial-4-50		

For regulatory information, see page 48

Product Name **Amobarbital**
C.A.S. number **57-43-2**

Trade and brand names

Altinal	Alupent-sed	Amal
Amasust	Ambese-la	Amital
Amobell	Amsal	Amsebarb
Amybal	Amycal	Amydorm
Amylbarb	Amylobeta	Amytal
Amytal sodium	Analgilasa	Appenil
Asthmin	Barbamyl	Beatol
Binoctal	Bludex	Calavon
Cuaot	Dexaspan	Dexital
Dorlotyn	Dorminal	Dormytal
Ergo-lonarid	Estimal	Etamyl
Eunoctal	Ifenin	Isoamitil sedante
Isobec	Isomyl	Isomytal
Isonal	Jalonac	Lonarid n
Medi-trol	Mudeka	Mylodorm

Product Name **Amobarbital**
C.A.S. number **57-43-2**

Trade and brand names

Mylodorm sustrel	N 8	Neur-amyl
Novambobarb	Novogen	Obe slim
Pentymal	Placidel	Protasma
Robarb	Schiwanox	Sednotic
Sedo-rythmodan	Somnal	Somvit
Stadadorm	Sumital	Sy-dexam
Talamo	Tensophoril	Transital
Tuinal		

For regulatory information, see page 49

Product Name **Amodiaquine**
C.A.S. number **86-42-0**

Trade and brand names

Amodoquin tablets	Basoquin	Camoquin
Caniquin	Flavoquin	Flavoquine

For regulatory information, see page 49

Product Name **Ampicillin/cloxacillin**
C.A.S. number **2002-1-1003**

Trade and brand names

Pfizerpen

For regulatory information, see page 286

Product Name **Aprobarbital**
C.A.S. number **77-02-1**

Trade and brand names

Allypropymal	Alurate	Alurate sodium
Aprozal	Isonal	Nervisal
Numal	Somnipron	

For regulatory information, see page 52

Product Name **Aristolochic acid**
C.A.S. number **313-67-7**

Trade and brand names

Acidum aristolchicum	Descresepet	Fago-paraxin
Fluocinova	Predno-facilus haemota	Tardolyt
Tr 1736		

For regulatory information, see page 52

Product Name **Astemizole**
C.A.S. number **68844-77-9**

Trade and brand names

Alermizol	Astezol	Astol
Hismanal	Histamanal	Novo-nastizol

For regulatory information, see page 54

Product Name **Azapropazone**
C.A.S. number **13539-59-8**

Trade and brand names

Ahr 3018	Apazone	Azapren
Cinnamin	Cinnopropazone	Dolo-prolixan
Pentosol	Prodisan	Prolix
Prolixan	Prolixana	Rheumox
Sinnamin	Tolyprin	Tolyprina
Xani		

For regulatory information, see page 56

Product Name **Azaribine**
C.A.S. number **2169-64-6**

Trade and brand names

Cb 304	Ribo-azauracil	Triazure

For regulatory information, see page 56

Product Name **Azatadine maleate/pseudoephedrine sulfate**
C.A.S. number **2002-1-1004**

Trade and brand names

Verban

For regulatory information, see page 290

Product Name **Barbital**
C.A.S. number **57-44-3**

Trade and brand names

Deba	Diemal	Dormileno
Dormon	Dormonal	Escoderm
Hypnogene	Hypnox	Lidor
Malonal	Megal	Plexonal
Sedeval	Somnytic tablets	Uronal
Verinogen	Verodon	Veroletten
Verolitten	Veronal	Veronigen

For regulatory information, see page 57

Product Name **Bencyclane**
C.A.S. number **2179-37-5**

Trade and brand names

Angiociclan	Angiodel	Bioarterol
Card-fludilat	Dantrium	Desoblit
Dilangio	Dilangio caposium	Dilapres
Fludilat	Fludilat (r)-dti	Fludilat amp 50 mg
Fludilat drag 100 mg	Fludilat dragee	Fludilat retard
Fludilat tropfen	Flussema	Fluxema
Halidor	Iloramina	Ludilat
Ludilat dti	Novo card-fludilat	Tardilat
Tensilence	Vasodarkey	

For regulatory information, see page 58

Product Name **Benorilate**
C.A.S. number **5003-48-5**

Trade and brand names

Benolat	Benoral	Benorile
Benortan	Benorylate	Benotamol
Bentum	Doline	Durium
Duvium	Faw 76	Fenasprate
Quinexin	Salipran	Sinalgin
Spierifex	Triadol	Vetedol
Win 11450	Winolate	Winorlate
Winorylate	Winrolate	Wiolate

For regulatory information, see page 58

Product Name **Benoxaprofen**
C.A.S. number **51234-28-7**

Trade and brand names

90459 compound	Benoxapran	Bexopron
Compound 90459	Coxigon	Inflamid
Lilly 3794	Lilly 90459	Lrcl 3794
Opren	Oprenal	Oraflex
Uniprofen		

For regulatory information, see page 58

Product Name **Benzarone**
C.A.S. number **1477-19-6**

Trade and brand names

Benzarin	Fragivix	Fragivix (r) forte
Vasco	Vasoc	Venagil

For regulatory information, see page 59

Product Name **Benzbromarone**
C.A.S. number **2004-0-0001**

Trade and brand names

Desuric

For regulatory information, see page 59

Product Name **Benzoylperoxide**
C.A.S. number **94-36-0**

Trade and brand names

Altex

For regulatory information, see page 59

Product Name **Benzyl alcohol**
C.A.S. number **100-51-6**

Trade and brand names

Actamin c	Benhur	Bigram
B-neuron	Brophylline	D & m tablets
Dermaspray	Dex-a-vet	Duphaspasmin
Eclipse	Fertagyl	Hydraplex
Lidazon	Lokalin	Madinex

Product Name **Benzyl alcohol**
C.A.S. number **100-51-6**

Trade and brand names

Omnadren	Orostat	Parkestaf
Procadolor	Reflex-spray	Solvidont
Sudocrem	Topic	Triofan

For regulatory information, see page 60

Product Name **Benzylpenicillin sodium (topical preparations)**
C.A.S. number **69-57-8**

Trade and brand names

Abbocillin	Bicillin	Bicillin all purpose
Ceilipen	Cidan	Cidan-cilina
Cilipen	Coliriocilina	Crisocilin-g
Cristapen	Crystamycin	Crystapen
Crystapen g	Demosa casi penicilina	Dermosa cusipenicilina
Falaper	Gonoper	Hormocillin forte
Hyasorb	Ilcocillin	Juvanesta
Lasacilina	Liademycin	M-cillin b
Megacillin	Monocillin	Natricilin
Novopen	P.g.a.	P-50
Paclia g	Patosica	Penibiot
Penicilina klari	Penilevel	Penimiluy
Peniroger	Penitasa "450" simple	Pentids
Pfizerpen	Sancilin	Saniciline
Servipan	Sk-penicillin g	Sodiopen
Sodipen	Specilline	Specilline g
Sugracillin	Tabillin	Therapen-na
Triplopen	Unicilina	Unicilina sodia

For regulatory information, see page 61

Product Name **Berberine**
C.A.S. number **2086-83-1**

Trade and brand names

3 p maid	Berberal	Berbericine
Berberil	Detal	Kenmin-s
Kinosin s	Phelloverin a	Tangenin
Thalsin	Umbellatin	Umbellatine

For regulatory information, see page 62

Product Name **Bithionol**
C.A.S. number **97-18-7**

Trade and brand names

Actamer	Anafogene	Bacteriostat cs-1
Bidiphen	Bit	Bithin
Bitin	Cp 3438	Lorothidol
Lorothiodol	Neopellis	Nobacter
Prevenol	Tbp	Vancid
Vancide bl	Xl 7	

For regulatory information, see page 65

Product Name **Boric acid and borates**
C.A.S. number **10043-35-3**

Trade and brand names

Alpagelle
Anojel
Anugard
Anojel
Anugard
Anusol hc
Anusol hc
Berlicetin
Betadrin
Berlicetin
Betadrin
Bexon
Bexon
Bluboro
Boroformal
Bluboro
Boroformal
Borogal
Borogal
Borsyre viskos
Cacimag
Borsyre viskos
Cacimag
Caclcifor
Caclcifor
Calcamyl-24
Calcibenzamin
Calcamyl-24
Calcibenzamin
Camilca
Camilca
Chibro
Coneolent
Chibro
Coneolent
Cutaden
Cutaden
Dissol
Ear-dry
Dissol
Ear-dry
Egosol-bs
Egosol-bs
Evercil
Fermakzem
Evercil
Fermakzem
Flex-care
Flex-care
Glaucadrine
Glucocalcium
Glaucadrine
Glucocalcium
Gynedron
Gynedron
Kalopsisi
Kerapos
Kalopsisi
Kerapos
Kodomo smarin
Kodomo smarin
Komex
Lindemil
Komex
Lindemil
Macaldex
Macaldex
Mentol sedans sulfamidad
Neo-smarin dia
Mentol sedans sulfamidad
Neo-smarin dia
Neo-vagipurin
Neo-vagipurin
Normol
O-biol
Normol
O-biol
Oestro-gynedron
Oestro-gynedron
Ophtalmin
Otocaina
Ophtalmin
Otocaina
Pedoz
Pedoz
Perborate
Phoscanol
Perborate
Phoscanol
Phytex
Phytex
Poly-gynedron
Preferal
Poly-gynedron
Preferal
Proculin
Proculin
Rhinophenazol
Saddle mate
Rhinophenazol
Saddle mate
Swim-ear
Swim-ear
Swim-eye
Tensophoril
Swim-eye
Tensophoril
Timazincum
Timazincum
Tipolin
Tricho-gynedron
Tipolin
Tricho-gynedron
Unisol
Unisol
Vetacalin-m
Alpagelle
Vetacalin-m

For regulatory information, see page 65

Product Name **Bromocriptine**
C.A.S. number **25614-03-3**

Trade and brand names

Bromed
Lactismine
Parilac
Parlodel
Umprel

For regulatory information, see page 68

Product Name **Bromocriptine**
C.A.S. number **25614-03-3**

Trade and brand names

Product Name **Broxyquinoline (see also halogenated hydroxyquinoline derivatives)**
C.A.S. number **521-74-4**

Trade and brand names

Aprilin	Auanosept	Brodiar
Bromoxin	Colepur	Colipar
Dibromoksin	Dibromoquin	Dibromoxin
Dibromoxine	Digesept	Diromo
Dirorno	Dysentrocym	Enosept
Enterokvin	Fenilor	Intestopan
Intestopan-g	Noroquinol	Paramiba
Paramibe	Paramibrodiar	Phenipan
Sandocycline	Sandoin	Starogyn
Susiform ad is vet		

For regulatory information, see page 68

Product Name **Bucetin**
C.A.S. number **1083-57-4**

Trade and brand names

Beelin	Bonanza	Haitmin
Hoe 15239	New isomidon	Ringl-s

For regulatory information, see page 69

Product Name **Bufexamac**
C.A.S. number **2438-72-4**

Trade and brand names

Anderm	Bufemac	Bufexamac-ratiopharm (r) creme
Bufexine	Bufexine ratiopharm(r) f-sable	Calmaderm
Droxan	Droxarol	Droxaryl
Droxaryl zalf 50 mg	Duradermal	Flogicid
Flogocid	Flogocid gel n.n	Flogocid sable
Malipuran	Mofenar	Norfemac
Paraderm	Parafenac	Parafenac (r) milch
Parafenac 5% creme	Parafenac basishad	Parafenac sable
Parafenal	Parfenac	Parfenal
Parfenal creme derm	Viafen	Viafen u est.crema 40 g

For regulatory information, see page 69

Product Name **Buformin**
C.A.S. number **692-13-7**

Trade and brand names

Adebit	Andebit	Andelit
Andere	Biforon	Bigunal
Biquinal	Bs-5892	Bufonamin
Bulbonin	Diabrin	Dibetos
Dutformin	Gliporal	Glybigid
Insulamin	Krebon	Panformin
Silubin	Silubin retard	Sindiatil

Product Name **Buformin**
C.A.S. number **692-13-7**

Trade and brand names

Tidemol retard Ziavetine

For regulatory information, see page 69

Product Name **Bumadizone**
C.A.S. number **3583-64-0**

Trade and brand names

Bumadizon Bumaflex Eumatol
Rheumatol

For regulatory information, see page 70

Product Name **Bunamiodyl**
C.A.S. number **1233-53-0**

Trade and brand names

Bunaiod Buniodyl Orabilex
Orabilix

For regulatory information, see page 71

Product Name **Buprenorphine**
C.A.S. number **52485-79-7**

Trade and brand names

Buprenex Buprex Buprx
Finibron Prefin Temagesic
Temgesic

For regulatory information, see page 71

Product Name **Cadralazine**
C.A.S. number **64241-34-5**

Trade and brand names

Cadraten Cadraten 21 cpr 20 mg Cadraten 30 cpr 10 mg
Cadraten 30 cpr 15 mg Cadratin Cadrilan

For regulatory information, see page 72

Product Name **Calamus**
C.A.S. number **8015-79-0**

Trade and brand names

Acore vrai Oil of calamus Sweet flag root

For regulatory information, see page 73

Product Name **Camelia sinensis**
C.A.S. number **2004-0-0003**

Trade and brand names

Exolise

For regulatory information, see page 73

Product Name **Camphor**
C.A.S. number **76-22-2**

Trade and brand names

Anbesol	Caladryl	Cresophene
Dasin	Ddd	Endrine
Makatussin	Mentol sedans sulfamidad	Nasello
Resol	Root bark oil	Spirit of camphor
Tcp	Tetesept	Topic

For regulatory information, see page 73

Product Name **Canrenone**
C.A.S. number **976-71-6**

Trade and brand names

Luvion

For regulatory information, see page 74

Product Name **Canthaxanthin**
C.A.S. number **514-78-3**

Trade and brand names

Apotrin	Food orange 8	Phenoro

For regulatory information, see page 74

Product Name **Cathine**
C.A.S. number **492-39-7**

Trade and brand names

Adiposetten n	Amorphan	Amorphan depot
Andiposetten	Appetrol	Dietene
Exponcit	Insacial	Miniscap
Minusin depot	Mirapront n	Neo-soldana
Novese	Phyteia schlankheitsdragees	Reduform
Redufrom	Thinz	

For regulatory information, see page 76

Product Name **Cefalosporins (topical preparations)**
C.A.S. number **UN-88-0002**

Trade and brand names

Cepalorin	Ceporin	Faredina
Latorex	Lauridin	

For regulatory information, see page 76

Product Name **Cerivastatin**
C.A.S. number **145599-86-6**

Trade and brand names

Cholstat	Lipobay	Rivastatin

For regulatory information, see page 77

Product Name **Chenodeoxycholic acid**
C.A.S. number **474-25-9**

Trade and brand names

Product Name **Chenodeoxycholic acid**
C.A.S. number **474-25-9**

Trade and brand names

Chendol

For regulatory information, see page 78

Product Name **Chloramphenicol**
C.A.S. number **56-75-7**

Trade and brand names

Acne-sol
Acnoxin
Actimac
Actinac
Alficetyn
Alficetyn susp.
Altabactin
Ambofen
Ambrasynth
Amphemycin-prednisonum
Amphenicol
Amphicol
Ampliomicetin
Amseclim
Amseclor
Anacetin
Angimidone
Angiters
Antibiopto
Aquamycetin
Aquapred
Armacol
Arrlicetin
Austracol
Aviatrin
Balkamycin
B-cpct
Bemacol
Berlicetin
Biocetin
Biofeniol
Biophenicol
Biophtas
Biotocap
Bismophenyl
Bitencyl
C. o fluo-fenicol
C. o hidrocor-clora
Caf
Cafenolo
Caladryl
Calmina
Cam
Campiol
Caosol
Cap
Catilan
Cavumycetina
Ccombinado balsamico
Ccorticol
Cebenicol
Cetina
Chemibal
Chemicetin
Chemicetina
Chemyzin
Chlomin
Chlomycol
Chloramex
Chloramfenicol
Chloramficin
Chloramfilin
Chloramol
Chloramphenicol cinnamate
Chloramphenicol intervetra
Chloramphenicol sodium succinate
Chloramphenicol-pos
Chloramphycin
Chloramplast
Chloramsaar
Chloramson
Chloranfeni-mck
Chloranfeni-opipno
Chloranfeni-otico
Chloranfeni-ungena
Chlorasol
Chlora-tabs
Chloreptic
Chlorical
Chloricol
Chlornitromycin
Chloro-25 vetaq
Chloroantibion
Chlorocaps
Chlorocid
Chlorocide
Chlorocidin c
Chlorocidin c tetran
Chlorocortal
Chlorofair
Chloroject l
Chloroject s
Chloromex
Chloromik
Chloromimyxin
Chloromycetin
Chloromycetin kapseals
Chloromycetin palmitate
Chloromycetin sodium succinate
Chloronitrin
Chloroptic
Chloroptic p. oint.
Chlorosol
Chlorostrep
Chlorotin
Chlorotyxin
Chlorovules
Chlorsig
Chlotaon
Ciclepen
Cidocetin
Ciplamycetin
Clinafenol
Clofenal
Clofibrase
Clomicin enzym
Cloramex
Cloramfen
Cloramicol
Cloramidina
Cloran
Cloranfenicol-mck
Cloranfeni-opifno
Cloranfeni-otico
Cloranfeni-ungena
Cloransul

Product Name **Chloramphenicol**
C.A.S. number **56-75-7**

Trade and brand names

Clorbiotina
Clorbis supp.
Clorocyn
Clorofenicina
Cloromicetin
Cloromisan
Cloromoin
Cloromycetin
Cloroptic
Cloroptic farmicetina
Clorosyntex
Colidene
Colimy-c
Comycetin
Cortican
Cortidermale
Cortimisin
Cortiphenicol
Cortison-quemicet
Cortivert
Cortol
Cph
Cutispray no. 4
Cyphenicol
Cysticat
Davuron sedante
D-chloramphenicol
Dectamicina
Delta optil
Desphen
Detreomycin
Devamycetin
Dexa-biofinicol
Dextromycetin
Doctamicina
Dorsec
D-threo-chloramphenicol
Duphenicol
Econoclor
Ejificol
Ejificol strept
Ejificol sulfa
Elase chloromycel
Embacetin
Emetren
Enicol
Enteromycetin
Enttocetrin
Erbaplast
Erittronicol
Erteilen
Esterofenil
Estevecicina cloranfenico
Eubetal
Extracicilina
Fago-praxin
Farmicetina
Fenicol
Fluorobioptal
Furacol l
Furamecetil alpha magna
Furamecetil magna
Furatrimon
Furokatin
Gammaphenicol
Ginetris
Gino-dectacil
Gliscol
Globenicol
Globveticol
Glorous
Goticas
Gotimycetin
Ichthoseptal
Intramycetin
Iruxol
Iruxolum
Isicetina
Ismicetina
Isopto fenicol
Juvamycetin
Kamaver
Kavipe
Kemicetine
Kloramfex
Klorita
Klorocid s
Kloromicin
Labamicol
Labamicol-bismuth
Lennacol
Leuchlon
Leukamycetin
Leukomyan
Leukomycin
Levocycline
Levomanilin
Levomicetina
Levomicin
Levomitsetin
Levomycetin
Levomycetina
Levoninizol
Levopa
Levosin
Levovetin
Lifabiotico
Liquichlor
Lisoprecol
Locomycetine
Lomecetina
Loromisin
Mammphenicol
Mastiphen
Mediamycetin
Medichol
Medicol
Meliplus
Mephenicol powder
Metisept
Micloretin
Micoclorina
Micoclorine
Micodry
Micofilina
Microcetina
Mindaril
Minims
Minims chloramphenicol
Misetin
Muracin
Mycetin
Mycetobis
Mychel
Mychel-s
Mychel-vet
Mycinol
Myclocin
Mycochlorin
Naxogin compositum
Neocetin
Neo-dexoclin
Niamycetin
Nitrocetin
Nitrocol
Norbum
Normimycin v

Product Name **Chloramphenicol**
C.A.S. number **56-75-7**

Trade and brand names

Nova-phenicol	Novoclorocap	Novomycetin
Oftalent	Oftan	Oleomycetin
Opclor	Ophthaphenicol	Ophthochlor
Opthalon	Optrin	Oralmisetin
Otachron	Otiprin	Otophen
Otopred ear drops	Pantofenicol	Pantovernil
Paraxin	Parcyclin	Pedimycetin
Pentamycetin	Pentocetina	Pertaril
Pimabiciron	Pinimentac	Plastoderma
Prednomycetine	Procusulf	Protercicline
Prurivet	Pulmo vinco	Quemicetina
Quitrase	Quitrase antibiotico	Ranphenicol
Ranstrepcol	Reclor	Redidropsol
Renegen	Reocetin	Reostop
Rheofin	Rivomycin	Rivomycin sulfa
Rolintrex	Romphenil	Roncovita
Ronphenil	Roscomycin	Rovictor
Samaphenicol	Scanicol	Scanicoline
Scieramycetin	Septicol	Sergo-amigdalar
Serviclofen	Sificetina	Sigmicilina
Sintomicetin	Sintomicetina	Sintomicetine r
Sintomitsin	Snophenicol	Soludectancil
Sopamycetin	Spasmo-paraxin	Spersanicol
Stanomycetin	Strepticine	Streptoglobenicol
Streptophenicol	Subital supp.	Suismycetin
Sulfaglobenicol	Sulfamycetin	Synthomycetin
Synthomycetina	Synthomycetine	Synthophtone
Tardomyocel	Tega-cetin	Tetrachlorasone
Tetracol	Tetranfen	Tetraphenicol
Tetra-phenicol oculos	Tevcocin	Tifomycine
Tiframilk	Tiromycetin	Toramin
Transicetina	Transpulmycin	Tribiotic
Trophen	Troymycetin	Tusolone
Tycloran	Unimycetin	Uro-gliscal
Uro-gliscal 500	Uroletten-s	Uroplex 4
Ut forte	Uvomycin	Vagisept
Variolan	V-crayolan	Vetical
Vetophenicol	Viceton	Viklorin
Virogin	Vitaklorin	Vsmpozim
Wintetil	Zoppib spray blu	

For regulatory information, see page 78

Product Name **Chlormadinone acetate**
C.A.S. number **302-22-7**

Trade and brand names

Gestafortin	Luteran	Ovosiston

For regulatory information, see page 79

Product Name **Chlornaphazine**
C.A.S. number **494-03-1**

Trade and brand names

Aleukon	Chloronaftina	Erysan
Nafticlorina	Naphthylamine mustard	

For regulatory information, see page 81

Product Name **Chloroform**
C.A.S. number **67-66-3**

Trade and brand names

Ametuss	Benafed	Benatuss
Benyphed	Broncho-rivo syrup	Chlor-histine
Codacol	Codimal dm	Co-specto
Cotrol-d	Cyprol expectrant	Dalet
Dectuss	Eludril	Expec-c
Fk-tussex	Guanor	Histalix
Hydril	Kentuss	Linctuss
Mc 3	Muflin	Nagalyn
Notose	Orthos kavident	Panosoma
Penta-zine	Phenacol-dm	Phenatuss
Phlogarol	P-m-z	Promex
R 20	Rexahisine	

For regulatory information, see page 81

Product Name **Chloroquine**
C.A.S. number **54-05-7**

Trade and brand names

Aralen	Aralen hcl	Aralin (diphosphate)
Artrichin	Artrochin	Avloclor (diphosphate)
Bemaphate	Bipiquin	Chemochin
Chlorochin	Cidanchin	Clorochina
Delagil	Dichinalex	Endamal
Erestol	Gontochin	Hiliopar
Imagon	Instana	Lagaquin
Letaquine	Malaraquin	Malarex (diphosphate)
Malariron (diphosphate)	Malquin	Mesylith
Miniquine	Nivaquine	Nivaquine b'
Nivembin	Norolon	Pfizerquin
Presocyl	Quinachlor	Quinercyl
Resichin	Resochin (diphosphate)	Resoquine
Reumachlor	Rivoquin	Salestol
Sanoquin	Scaniquine (diphosphate)	Serviquin
Silbesan	Siragon	Tanakan
Tresochin	Trochin	

For regulatory information, see page 83

Product Name **Chlorphentermine**
C.A.S. number **461-78-9**

Trade and brand names

Apsedon	Avicol	Avipron

Product Name **Chlorphentermine**
C.A.S. number **461-78-9**

Trade and brand names

Chenracol	Clorfentermina	Desopimon
Effox	Lucofen	Lucofen retard
Lucofen sa	Minilip	Phenacon
Pre-sate	Reamine	Sinfat
Teramine		

For regulatory information, see page 84

Product Name **Cianidanol**
C.A.S. number **154-23-4**

Trade and brand names

Ausoliver	Catergen	Cirramina
Drenoliver	Transepar	

For regulatory information, see page 84

Product Name **Cinchophen**
C.A.S. number **132-60-5**

Trade and brand names

Aglophenyl	Agotan	Alcophenyl
Alutyl	Artam	Artexin
Atigoa	Atocin	Atofan
Atophan	Cefeno	Cinchophene
Cinconal	Cincosal	Fenofan
Iriphan	Mylofanol	Mylophanol
Phenoquin	Rhematan	Rheumin
Tervalon	Tophol	Traubofan
Vantyl	Viophan	

For regulatory information, see page 85

Product Name **Cinnarizine**
C.A.S. number **298-57-7**

Trade and brand names

Rinomar

For regulatory information, see page 86

Product Name **Cisapride**
C.A.S. number **810968-60-4**

Trade and brand names

Calmax	Cisapid	Cismotil
Digenol		

For regulatory information, see page 86

Product Name **Clemastine**
C.A.S. number **15686-51-8**

Trade and brand names

Agasten	Alagyl	Aller-ez
Aller-ez plus	Alogynan	Alphamin
Anhistan	Antihist-1	Arrest

Product Name **Clemastine**
C.A.S. number **15686-51-8**

Trade and brand names

Benaznyl	Clemanil	Clemastin fumerate syrup
Corto-tavegil	Dexa-tavegil	Fuluminol
Fumarsutin	Inbestan	Kinotomin
Lacretin	Licasol	Maikohist
Mallermin	Marsthine	Masletine
Piloral	Rhinergal	Rhinergal tavegil
Tavegil	Taveggl	Tavist
Tavist 1	Tavist tablets	Tavist-1
Tavist-d	Tavist-syrup	Telgin-g
Xolamin		

For regulatory information, see page 89

Product Name **Clioquinol (see also halogenated hydroxyquinoline derivatives)**
C.A.S. number **130-26-7**

Trade and brand names

Alchloquin	Amebio-formo	Amoenol
Anterobe	Aristoform	Aristoform "d"
Aristoform "r"	Bactol	Barquinol
Barquinol hc	Betnorate-c	Britaderm
Britadex-vioform	Budoform	Carboform
Cifoform	Cleocin	Cliquinol
Cloro-yodo-hidroxi	Clorpine	Combias
Copover	Cortex	Corticreme
Corti-glottyl	Cremo-quin	Dependal
Dermadex	Dermo-quinol	Dermozolan
Dexalocal	Diaban	Dioderm
Dioderm c	Dioderm c-c	Diodotracin
Dioquinol	Diproform	Dizenterol
Domeform	Eczecidin	Emaform
Enteral	Enteritan	Ente-rivo
Enterokin	Enterosan	Enterosept
Enteroseptol	Entero-valodon	Entero-vioform
Entero-vioformio	Entero-vioformo	Enterozol
Enterquinol	Entox	Entrasorb
Entrokin	Entrokinol	Fraquinol
Fusalor-yodocloro	Fyloxxal	Gmd
Guanosept	Haelan-c	Hi-enterol
Hocacorten-vioform	Hydroform	Hysone
Iodenterol	Iodochlorhydroxyquinol	Iodo-cortifair
Iodocortindon	Iodoenterol	Iodo-max
Isoderm	Khlorlinkotsin	Klinicin
Lecortin	Lederform-d	Lekosept
Lemoderm	Linola	Locacorten-vioform
Locorten	Locorten-vioform	Metrijet
Metrityl	Mexafermento	Mexafom
Mexaform	Mycoquin	Nasello
Nefurox	Nioform	Obstecrim
Oralcer	Oxyquin	Pedi-cort

Product Name **Clioquinol (see also halogenated hydroxyquinoline derivatives)**
C.A.S. number **130-26-7**

Trade and brand names

Percural	Phen-ortis	Pricort cream
Propaderm-c	Quadriderm	Quin
Quin iii	Quina band	Quinambicide
Quiniodochlor	Reticus	Rheaform
Rometin	Sebryl	Sedacol
Septo-canulase	Silic c	Steroderm
Synalar-c	Tequinophil	Toptic
Torofor	Unidiarea	Uteroject
Ventribex	Viform	Vioform
Vioform bolus	Vioform hydrocortisan	Vioform hydrocortisone
Vioforme	Viosept	

For regulatory information, see page 89

Product Name **Clobenzorex**
C.A.S. number **13364-32-4**

Trade and brand names

Asenlix	Finedal

For regulatory information, see page 91

Product Name **Clofibrate**
C.A.S. number **637-07-0**

Trade and brand names

Aatroayerst	Aitiflus	Amotril
Angiocapsul	Anparton	Antilipid
Apolan	Arterioflexin	Arterioflexion
Artes	Artevil	Artriosan
Asa/cpib	Ateculon	Aterioplexin
Ateriosan	Ateroayrest	Ateroclar
Aterofront	Ateronlen	Aterosol
Atevil	Atheroayerst	Atheromide
Atheropront	Atroayerst	Atrofort
Atrolan	Atrolen	Atromid
Atromidin	Atromid-s	Atrom-s
Atrovis	Ay 61	Azionyl
Biocleran	Bioscleran	Cartagyl
Cinnarizin	Citiflus	Clareden
Claresan	Claripex	Claripex cpib
Cloberab	Cloberat	Clobrat
Clobrate	Clobren	Clobren-5 f
Clof	Clofenit	Clofibral
Clofibrat	Clofibrate ayerst	Clofibrate compose
Clofibrato ayerst	Clofibrato procaps	Clofibrem
Clofimide	Clofini	Clofin-icn
Clofinit	Clofipront	Clofipront 5000
Clofirem	Clofirin	Clofi-t
Clopin	Col 180	Contra-lipide
Corafen	Cr/085	Dabical
Delipid	Deliva	Dilectus

Product Name **Clofibrate**
C.A.S. number **637-07-0**

Trade and brand names

Doctus	Duplinal	Duraclofibrate
Ellemger	Elpi	Epib
Eramid	Fibramid	Fibrolynt
Geri-70	Geromid	Gerostop
Healthstyle	Hyclorate	Ici 28257nt
Ipolipid	Klofibrat	Klofiran
Kontalipide	Levatram	Levatrom
Liapten	Liparil	Lipaten
Lipavil	Lipavlon	Lipavlon 500
Lipicidon	Lipidicon	Lipofacton
Lipomid	Liponorm	Liporan
Liporeduct	Liporil	Liposid
Liprin	Liprinal	Liptrinal
Lobetrin	Lostat	Miscleron
Negalip	Neoatromid	Neo-atromid
Nibratal	Nibratol	Nnormet
Nobret	Norinolipol	Normalip
Normet	Normet richter	Normolipol
Nosterolin	Novofibrate	Omelip
Persantinat	Provasa	Recade
Recolip	Regelan	Regelan n 500
Sclerovasal	Serolipid	Serotinex
Sestron	Sinteroid	Sklero
Sklerocip	Sklerolip	Skleromex
Skleromexe	Sklero-tablinen	Sklerovasal
Supraoxid	Tepincal	Tepingal
Ticlobran	Vimedel	Vocaline
Xyduril	Yoclo	

For regulatory information, see page 92

Product Name **Cloforex**
C.A.S. number **14261-75-7**

Trade and brand names

Avicol sl	Avicol-la	Chloferex
D 237	Frenapyl	Lipociden
Oberex	Vidipon	Zeisin

For regulatory information, see page 94

Product Name **Clomethiazole**
C.A.S. number **533-45-9**

Trade and brand names

Clomiazin	Distraneurin	Distraneurine
Emineurina	Gebriazol	Hemineurin
Hemineurine	Heminevrin	Somnevrin

For regulatory information, see page 95

Product Name **Clozapine**
C.A.S. number **5786-21-0**

Trade and brand names

Clozaril	Iprox	Leponex
Leponox		

For regulatory information, see page 95

Product Name **Cobalt (non-radioactive forms)**
C.A.S. number **7440-48-4**

Trade and brand names

C.i. 77320	Cobalt-59	Impromin
Inter-con	Kometileneamin	Levacide-c
Orkomin	Panacur	Sofracaps
Tasvite	Trelenium	

For regulatory information, see page 96

Product Name **Codeine**
C.A.S. number **6095-47-8**

Trade and brand names

Algisedal	Codicept	Codol
Diarrest	Methylmorphin	Novacetol
Sedarene		

For regulatory information, see page 97

Product Name **Cyclamates in drugs**
C.A.S. number **139-05-9**

Trade and brand names

Adocyl	Ampenoline balsamoco	Assugrin
Azucrona	Cyclarin	Glusac super
Ilgon	Sladicin	Sucaryl
Sucaryl calcium	Sucaryl sodium	Sucrum
Sucrum 7		

For regulatory information, see page 98

Product Name **Cyproheptadine**
C.A.S. number **129-03-3**

Trade and brand names

Anarexal	Antegan	Apeplus
Brantina	Brantine	Brontin
Carnigol	Carpantin	Ciplactin
Cipractin	Cipro	Cipro n
Ciprocort	Cypromin	Cyrasarl
Eiproheptadine	Estialim	Histatets
Ifrasarl	Kontrast u	Naidoretico
Nuran	Nurdelin	Nuttriben
Oractine	Orexigen	Periactin
Periactine	Periactinol	Periactol
Perideca	Peritol	Pranzo
Reparal carnitina	Siglatan	Sigloton
Sipraktin	Siprodin	Vimicon

Product Name **Cyproheptadine**
C.A.S. number **129-03-3**

Trade and brand names

For regulatory information, see page 99

Product Name **Danazol**
C.A.S. number **2004-0-0004**

Trade and brand names

Danol

For regulatory information, see page 101

Product Name **Dantron**
C.A.S. number **117-10-2**

Trade and brand names

Doss	Normax	Regulex-d

For regulatory information, see page 101

Product Name **Depot medroxyprogesterone acetate (DMPA)**
C.A.S. number **71-58-9**

Trade and brand names

Amen	Clinovie	Cliovir
Curretab	Dep0-clinover	Dep0-map
Depcorlutin	Depo-prodasone	Depo-progevera
Depo-promone	Depo-provera	Deporone
Dugen	Farlurin	Farlutal
Farlutale	Gesinal	Gestapuran
Gestapuron	G-farlutal	Hysron
Intex	Luteocrin orale	Luteodione
Luteos	Lutoporal	Lutoral
Meprate	Metigestene	Metigestrona
Nadigest	Nidaxin	Nogest
Onco-provera	Oragest	Perlutest
Perlutex	Petogen	Piermap
Povera	Prodasone	Progestalfa
Progevera	Promone-e	Pronone
Provera	Proverone	Provest
Repromix	Sindomens	Sirprogen
Sodelut	Sodelut "g"	Supprestal
Verafen	Veramix	Veramix plus v

For regulatory information, see page 102

Product Name **Dequalinium chloride**
C.A.S. number **522-51-0**

Trade and brand names

Decabis	Dequacaine	Dequafungan
Dequin	Evazol	Faringina
Gargilon	Grocreme	Labosept
Maltyl	Phylletten	Soor-gel
Sorot	Tetesept	

For regulatory information, see page 103

Product Name **Dequalinium chloride**
C.A.S. number **522-51-0**

Trade and brand names

Product Name **Dexamfetamine**
C.A.S. number **51-64-9**

Trade and brand names

Adiparthrol	Afatin	Amfe-dyn
Amphaetex	Bipheramine	Curban
D-amfetasul	Dexadrine	Dexamed
Dexamin	Dexampex	Dexedrina
Dexedrine	Dexten	Dextro-profetamine
Drinamyl	Durophet	Durophet-m
Ferndex	Maxiton	Mephadexamine-r
Mephadexamin-r	Obetrol	Obotan
Proptan	Robese	Simpamina d
Steladex	Stil-2	Synatan

For regulatory information, see page 104

Product Name **Dexfenfluramine**
C.A.S. number **3239-44-9**

Trade and brand names

d-Fenfluramine	Diomeride

For regulatory information, see page 104

Product Name **Dextromethorphan**
C.A.S. number **125-71-3**

Trade and brand names

Agrippol	Dextophan	Dextrophen

For regulatory information, see page 105

Product Name **Dibenzepin hydrochloride**
C.A.S. number **315-80-0**

Trade and brand names

Ansiopax	Deprex	Ecatrol
Hf 1927	Neodalit	Neodit
Noveril	Victoril	

For regulatory information, see page 105

Product Name **Diclofenac sodium**
C.A.S. number **15307-79-6**

Trade and brand names

Aflamin	Alfamin	Allvoran
Artren	Blesin	B-voltaren
Cgp 9194	Chlorgyl	Ct-diclo
Delphimix	Dichloronic	Dichronic
Diclo attritin	Diclo spondril	Diclo-attritin
Diclo-burg	Diclo-phlohont	Diclo-puren
Diclo-recip	Dicloreum	Diclo-spondyril
Diclo-wolf	Dolaren	Dolobasan
Dolotrem	Doragon	Duravolten

Product Name **Diclofenac sodium**
C.A.S. number **15307-79-6**

Trade and brand names

Duvavotten	Effekton	Feloran
Fenoflam	Flogofenac	Flogogenac
Forgenac	Inflamac	Klast
Kriplex	Monoflam	Myogit
Neriodin	Neuro-effekton	Neurofenac
Neuro-voltaren	Neviodin	Novapirina
Olfen	Panamor	Parsal
Prophenatin	Rewodina	Rheumalgen
Rheumavincin	Rheumavincin-n	Seecoren
Shignol	Silino	Sofarin
Sorelmon	Thicataren	Toryxil
Tsudohmin	Tsudomin	Valetan
Voltaren	Voltarene	Voltarol

For regulatory information, see page 105

Product Name **Dicycloverine**
C.A.S. number **77-19-0**

Trade and brand names

Abacid plus	Ametil	Atumin
Babypasmil	Babyspasm	Babyspasmil
Baycyclomine	Benacol	Bendectin
Bentomine	Bentyl	Bentylol
Clomin	Colix	Cyclobex
Cyclocen	Debendox	Diarrest
Diclophen	Dicyclomine	Dicycloverin
Diocyl	Dyspas	Eatongel
Esentil	Fomulex	Formulex
Gastrosilane	Icramin	Incramin
Incron	Inctacol-c	Isospamex
Kolanticon	Kolantyl	Lagasediv
Lomine	Mamiesan	Menospasm
Merbantal	Merbentyl	Mydocalm
Neoquess	Nomocramp	Notensyl
Or-tyl	Ovol	Pamin
Panakiron	Prinel	Procyclomin
Protylol	Sawamin	Spactil
Spasmoban	Spastil	Tarestin
Viscerol	Wyovin	

For regulatory information, see page 106

Product Name **Dienestrol**
C.A.S. number **84-17-3**

Trade and brand names

Agaldog	Avc/dienestrol	Crinohermal fem
Cycladiene	D.v.	Dehydrostilboestrol
Dienoestrol	Dienol	Dienostrol cream
Dienstrogen	Dinestrol	Dinol
Dinovex	Dufemine	Dv

Product Name **Dienestrol**
C.A.S. number **84-17-3**

Trade and brand names

Estraguard	Estrodienol	Estroral
Farmacyrol	Follidiene	Follormon
Foragynol	Frein	Gynefollin
Hormofemin	Isodienestrol	Klianyi forte
Klianyl	Lipamone	Neo-oestrogenine
Oestrasid	Oestrodien	Oestrodiene
Oestrodienol	Oestroral	Oestrovis
Ortho	Ortho (cream)	Ortho dienestrol cream
Para-dien	Restrol	Retalon
Sexadien	Sexadieno	Synestrol
Synoestrol	Teserene	Willnestrol

For regulatory information, see page 107

Product Name **Diethylaminoethoxyhexestrol**
C.A.S. number **2691-45-4**

Trade and brand names

Coralgil	Coralgina	Coralgyl
Trimanyl		

For regulatory information, see page 107

Product Name **Diethylstilbestrol**
C.A.S. number **56-53-1**

Trade and brand names

Distilbene	Oestro-gynedron	Stilphostrol

For regulatory information, see page 107

Product Name **Difenoxin**
C.A.S. number **28782-42-5**

Trade and brand names

Dioctin	Lyspafen	Lyspofen
Lyspofenac	Motofen	

For regulatory information, see page 109

Product Name **Difurazone**
C.A.S. number **804-36-4**

Trade and brand names

Panzon	Payzone

For regulatory information, see page 109

Product Name **Dihydrostreptomycin**
C.A.S. number **128-46-1**

Trade and brand names

Abiocine	Abocillin	Biostrep
Complexobiotico	Dhsm	Diapenin 3
Diapenin balsamico	Diarrestival	Didromycin
Didrothenate	Dihydrocidan sulfato	Dihydrostreptofar
Dihydrostreptom	Diidro-pantostrept	Distreptopab

Product Name **Dihydrostreptomycin**
C.A.S. number **128-46-1**

Trade and brand names

Dreiciclina balsamica	Dst	Entera-strept
Estreptoluy	Estreptosirup	Helle-strep-forte
Hp 48	Mastigun	Mixtencillin
Retromyopen	Rocopenstrep	Sanstrepto
Solmycin	Solvo-strept	Streptoduocin
Veticar	Veycil-as	Vibriomycin

For regulatory information, see page 109

Product Name **Dihydroxymethylfuratrizine**
C.A.S. number **794-93-4**

Trade and brand names

Furatone	Panfuran s	Panfuran-s

For regulatory information, see page 110

Product Name **Dimazole**
C.A.S. number **95-27-2**

Trade and brand names

Asterol	Atelor	Atelora
Aterola	Kesten	Mycotol

For regulatory information, see page 111

Product Name **Dinoprostone**
C.A.S. number **363-24-6**

Trade and brand names

Minprostin	Prostaglandin E2	Prostarmon e
Prostenon	Prostin e2	Prostin vr pediatric

For regulatory information, see page 111

Product Name **Diphenoxylate**
C.A.S. number **915-30-0**

Trade and brand names

Diarphem	Diarsed	Diarsed-neomycin
Diatro	Eldox	Logen
Lomanate	Lomax	Lomotil
Lomotil liquid	Lonox	Protector
Reasec	Saleton	Sedistal

For regulatory information, see page 112

Product Name **Dithiazanine iodide**
C.A.S. number **514-73-8**

Trade and brand names

Abminthic	Anelmid	Anguifugan
D.i.m.	Dejo	Delvex
Deselmine	Dilombrine	Dithiazine (dye)
Dizan	Dtdc	Eastman 7663
Elmizin	Nekel	Netocyd
Omni-passin	Ossiurene	Partel

Product Name **Dithiazanine iodide**
C.A.S. number **514-73-8**

Trade and brand names

Telmicid	Telmid	Telmide

For regulatory information, see page 113

Product Name **Domperidone(injectable)**
C.A.S. number **57808-66-9**

Trade and brand names

Euciton	Evixub	Kw 5338
Moperidona	Motilium	Nauzelin
Neta662	Peridon	Peridys
R 33812	Tametil	Touristic

For regulatory information, see page 114

Product Name **Doxepin**
C.A.S. number **1668-19-5**

Trade and brand names

Adapin	Apo-doxepin	Aponal
Co dox	Deptran	Doksapan
Dolat	Doxal	Doxedyn
Doxepin hcl	Gilex	Novo-doxepin
Novoxapin	Quitaxon	Sinequan
Sinquan	Sinquan concentrate	Sinquane
Tolllluan	Triadapin	Zonalon

For regulatory information, see page 114

Product Name **Doxycycline hyclate(injectable)**
C.A.S. number **24390-14-5**

Trade and brand names

Abadox	Azudoxat	Bassado
Bio-tab	Clisemina	Cloran
Cyclidox	Deoxymykoin	Diocimex
Docostyl	Doryx	Dosil
Dotur	Doxatet	Doxi sergo
Doxicento	Doxifin	Doxilen
Doximycin	Doxin	Doxina
Doxinate	Doxiten bio	Doxivis
Doxy	Doxy-100	Doxy-basan
Doxybiocin	Doxychel	Doxycyl
Doxy-diolan	Doxydyn	Doxyfim
Doxygram	Doxylag	Doxylan
Doxylar	Doxylets	Doxylin
Doxymycin	Doxy-p	Doxytem
Doxy-wolff	Dumoxin	Duradoxal
Esadoxi	Farmodoxi	Ghimadox
Gram-val	Granudoxy	Helvedoclyn
Icladox	Idocyklin	Mespafin
Miraclin	Monocline	Monodox
Monodoxin	Nordox	Novelciclina

Product Name **Doxycycline hyclate(injectable)**
C.A.S. number **24390-14-5**

Trade and brand names

Philcociclina	Radox	Retens
Roximycin	Roxyne	Samecin
Semelciclina	Sigadoxin	Solupen
Spanor	Stamicina	Supracyclin
Tetradox	Tetrasan	Unacil
Unidox	Vibracina	Vibramicina
Vibramycin	Vibramycin hyclate	Vibramycine
Vibra-tab	Vibra-tabs	Vibraveineuse
Vibravenos	Vibravenosa	Ximicina
Zadorin		

For regulatory information, see page 115

Product Name **Droperidol**
C.A.S. number **548-73-2**

Trade and brand names

Dehydrobenzperidol	Diaperidol	Inopsin

For regulatory information, see page 116

Product Name **Emetine**
C.A.S. number **483-18-1**

Trade and brand names

Asmorex	Broncho-tetracycline	Dicton-retard
Emedrin	Emetin	Emetina
Emetocamphrol	Hemometina	Optairosol
Pectinfant		

For regulatory information, see page 117

Product Name **Ephedra**
C.A.S. number **2004-0-0005**

Trade and brand names

Magic herb

For regulatory information, see page 118

Product Name **Epinephrine**
C.A.S. number **51-43-4**

Trade and brand names

Adnephrine	Adrefil	Adrehinal
Adren	Adrenal	Adrenalin
Adrenalin chloride	Adrenalin medihal	Adrenalina ace.p.d.
Adrenalina clorhi	Adrenalina delta	Adrenalina fustery
Adrenalina hormona	Adrenalina p davis	Adrenalina wiener
Adrenaline	Adrenamine	Adrin
Bronkaid mistometer	Cetanest	Chelafrin
D epinefrin	Dento-caine	D-epifrin
Depinefrin	Dysne-inhal	E-caprine
Epiboran ofteno	Epifrin	Epiglaufrin
Epinephrine hcl	Epinephrine pediatric	Epineramine

Product Name **Epinephrine**
C.A.S. number **51-43-4**

Trade and brand names

Epipen	Epirenan	Epitrate
Exadrin	Ganda	Glaucadrin
Glaucadrine	Glaucoaicon	Glaucon
Glauconin	Glaucosan	Glaucotahil
Glycirenan	Haemostasin	Hektalin
Hemisine	Hemostatin	Intranefrin
Isopto epinefrina	Kidoline	L-caine
L-epinephrine	Levorenine	Levoreninl-adrenaline
Licothionil	Lidoacton	Lyodrin
Lyophrin	Marcaom	Medihaler-epi
Metanephrine	Methylaminoethanolcatechol	Methylarterenol
Mucidrina	Neo-rybarex	Nephridine
Nieraline	Niphridine	Octacaine
Orostat	P2e1	Paranephrine
Pe	Piladren	Primatene mist
Renagladin	Renaglandin	Renaglandulin
Renaleptine	Renalina	Renoform
Renostypticin	Renostyptin	Scurenaline
Sedo-asmol	Simplene	Styptirenal
Supracapsulin	Supranephrane	Supranephrine
Suprarenaline	Suprarenine	Suprel
Suprexon	Suprexon 5	Surrenine
Susphrine	Sus-phrine	Sympathin i
Takamina	Vaponefrin	Vaponephrine
Vasoconstrictine	Vasoconstrictor	Vasodrine
Vasotonin	Xylestesin a	Xylotox

For regulatory information, see page 118

Product Name **Erythromycin estolate**
C.A.S. number **3521-62-8**

Trade and brand names

Antibio-aberel	Apo-erythro-s	Bio-exazol
Biometran	Biomicron	Bristamycin
Chemthromycin	Cimetrin	Cusimicina balsamica
Doboiosol	Dowmicyn	Dreimicina
Duozplin vitaminado	Dynabiotal	E.e.s
Ees-200	Ees-400	E-mycin
E-mycine	Endoeritrina	Erimec
Erirobios	Eriscel	Eritrazol
Eritrobios	Eritrobiotic	Eritrocin
Eritrodes	Eritroger	Eritronicol
Eritropan	Eritroveinte	Eritrovienite
Eritrowolf	Eritro-wolf	Ermysin
Eromycin	Ery derm	Eryc
Erymycin	Erypar	Eryped
Ery-tar	Erythrocin	Erythromictine
Erythromid	Erythro-prat	Ery-toxinal
Erytrarco	Erytrodol	Erytro-prot

Product Name **Erythromycin estolate**
C.A.S. number **3521-62-8**

Trade and brand names

Eryt-toxinal	Espimina	Estimina
Estomicina	Estomiicina	Estomycin
Ethril	Fesmicina	Iloson
Ilosone	Ilosone pulvules	Ilosone ready-mix
Ilothycin	Ilotycin	Kesso-mycin
Laucetin	Laurilin	Lauritran
Lauromicina	Liferitrin	Loderm
Lubomycina	Lubomycine	Makrocyklina
Manilina	Marcoeritrex	Marocid
Mistral	Monomycin	Neo-erycinum
Neo-ilolycina	Neo-iloticina	Niux
Novorythro	Pediamycin	Pels
Pfizer-e	Propiocine enfant	Propriocin enfante
Prospiocine	Proterytrin	Pulmomas
Purmycin	Ritromin	Robimycin
Roxo chemil	Roxochemil	Rp-mycin
Rubibacter	Selvicin	Sk-erythromycin
Spetrasone	Stella micina	Stellamicina
Taimoxin	Togerin	Togiren
Togrien	Tosinova	Tropoxin
Wyamycin	Wyamycin e	Wyamycin s

For regulatory information, see page 120

Product Name **Etanercept**
C.A.S. number **185243-69-0**

Trade and brand names

Enbrel	Tanercept	yhu TNFR: Fc

For regulatory information, see page 121

Product Name **Ethambutol**
C.A.S. number **74-55-5**

Trade and brand names

Aethambutolum	Embutol	Etbutol

For regulatory information, see page 121

Product Name **Ethanol**
C.A.S. number **64-17-5**

Trade and brand names

Absolute alcohol	Alcohol aethylicus	Alcool
Avitoin	Banatol	B-tonin
Colfin	Desqyam-x	Duonale-e
Efatin	Equithesin	Hizeneck-d
Honkon-n	Kapsitrin	Keralyt
Levovinizol	Mikrozid	Neotizol
Panoxy	Papette	Piadarn
Polislerol	Protectaderm	Sicol
Sodaphilline	Softa man	Sotracarix

Product Name **Ethanol**
C.A.S. number **64-17-5**

Trade and brand names

Verucid	Weingeist	Xeracin

For regulatory information, see page 121

Product Name **Ethylestrenol**
C.A.S. number **965-90-2**

Trade and brand names

Dexabolin	Durabolin-o	Duraboral
Ethylnandrol	Fertabolin	Maxibolin
Neodurabolin	Orabolin	Orgabolin
Orgaboral	Vibolin	

For regulatory information, see page 123

Product Name **Etomidate**
C.A.S. number **33125-97-2**

Trade and brand names

Amidate	Hypnomidat	Hypnomidate
Hypnomidate concentrate	Hypnomidate injection	Hypromidate
Nalgol	Radenarcon	Sibul

For regulatory information, see page 124

Product Name **Etretinate**
C.A.S. number **54350-48-0**

Trade and brand names

Ro 10-9359	Tegison	Tigasan
Tigason		

For regulatory information, see page 124

Product Name **Factor IX**
C.A.S. number **UN-87-0003**

Trade and brand names

Bebulin	Haimaplex	Preconativ
Profilnine	Proplex	Prothromplex

For regulatory information, see page 125

Product Name **Factor VIII**
C.A.S. number **UN-87-0004**

Trade and brand names

Factorate	Hemofil	Humafac
Humanate	Hyate:c	Koate
Kryobulin	Profilate	

For regulatory information, see page 126

Product Name **Famotidine**
C.A.S. number **76824-35-6**

Trade and brand names

Amifatidine	Famodil	Pepsidac

Product Name **Famotidine**
C.A.S. number **76824-35-6**

Trade and brand names

For regulatory information, see page 126

Product Name **Fenclofenac**
C.A.S. number **34645-84-6**

Trade and brand names

Feclan	Flenac	Gidalon
Monosan	Rx 67408nac	

For regulatory information, see page 126

Product Name **Fenetylline**
C.A.S. number **3736-08-1**

Trade and brand names

Biocapton	Captagon	Captagon cpr nsfp

For regulatory information, see page 127

Product Name **Fenoterol**
C.A.S. number **13392-18-2**

Trade and brand names

Berotec	Dosberotec	Duovent
Fensol	Partusisten	

For regulatory information, see page 128

Product Name **Feprazone**
C.A.S. number **30748-29-9**

Trade and brand names

Analud	Bentudor	Brotazona
Cocresol	Da 2370	Danfenona
Feniprenazone	Fepramole	Golaman
Grisona	Impremial	Methrazone
Metrazone	Naloven	Naoven
Nazona	Nessazona	Nilatin
Prenakes	Prenazon	Prenazone
Rangozona	Represil	Solielin
Tabrien	Tbrien	Vapesin
Zepelin	Zontal	Zoontal

For regulatory information, see page 128

Product Name **Fipexide**
C.A.S. number **34161-24-5**

Trade and brand names

Attenil	Attenil 30 conf. 20 mg	Fipexitum
Fipexium	Vigilor	Vigilor 200 mg cpr msfp

For regulatory information, see page 129

Product Name **Flecainide**
C.A.S. number **54143-55-4**

Trade and brand names

Product Name **Flecainide**
C.A.S. number **54143-55-4**

Trade and brand names

Flecaine

For regulatory information, see page 129

Product Name **Floctafenine**
C.A.S. number **23779-99-9**

Trade and brand names

Tambocor

For regulatory information, see page 131

Product Name **Flunitrazepam**
C.A.S. number **1622-62-4**

Trade and brand names

Darkene	Flumipam	Flunipam
Hipnosedon	Hiposedon	Hypnodorm
Hypnosedon	Libelins	Narcozep
Noviel	Primun	Riopnol
Rohipnol	Rohpinol	Rohpnol
Rohypnol	Roipnol	Valsera
Valseram		

For regulatory information, see page 132

Product Name **Fluvoxamine**
C.A.S. number **54739-18-3**

Trade and brand names

Faverin	Fevarin

For regulatory information, see page 133

Product Name **Furazolidone**
C.A.S. number **67-45-8**

Trade and brand names

Benilen	B-fsudi	Carbopuradin
Coryzium	Dapecfuran	Dectolin
Diafuron	Dialidene	Diarexin
Diarin	Diclofur	Doreplston
Dushel	Enterar	Enteroxon
Foroxon	Foroxone	Framenterol
Ft 15	Furaberin	Furacol l.
Furacort	Furalatin p.	Furalidan
Furaliqua	Furall	Furazol
Furazon	Furovag	Furox
Furoxal	Furoxane	Furoxon
Furoxona	Furoxona-cp	Furoxone
Furoxone swine mix	Fuvitan	Fuxol
Fuzatyl	Galacid	Gamafur s.
Giardil	Giarlam	Giarlin
Ginvel	Injecur	Intefuran
Kalpec-f	Lacolysat	Mastisept

Product Name **Furazolidone**
C.A.S. number **67-45-8**

Trade and brand names

Medaron	Multi-med 2	Multi-med 3
Multi-med 6	Neforox	Neforox alpha cpto
Neftin	Neftivit	Nf 180
Nicolen	Nicolen r	Nifulidone
Nifulin	Nifuran	Optazol
Parkestress forte	Puradin	Roptazol
Saleton	Scantrimon	Sclaventerol
Sibren	Sirben	Syralbuna
Tetrafur	Tikofuran	Topazone
Tranatogen-ova	Trichofuron	Tricofuron
Tricoron	Trifurox	Ufa-cfo-400
Uterojekt	Vagifurona	Vetoprim
Viofuragyn	Vsf-medical g 15	

For regulatory information, see page 133

Product Name **Gallopamil**
C.A.S. number **1662-47-8**

Trade and brand names

Benpredil	Corapamil	Methoxyverapamil

For regulatory information, see page 134

Product Name **Gamelonic acid**
C.A.S. number **2003-0-1001**

Trade and brand names

Efamast	Epogam

For regulatory information, see page 135

Product Name **Gemfibrozil**
C.A.S. number **25812-30-0**

Trade and brand names

Gevilon	Hipolixan	Ipolipid
Lipur	Lopid	Tenorac

For regulatory information, see page 135

Product Name **Ginkgo biloba**
C.A.S. number **2002-0-1010**

Trade and brand names

Tanakan

For regulatory information, see page 137

Product Name **Glafenine**
C.A.S. number **3820-67-5**

Trade and brand names

Adalgur	Disipan	Espasmo-giliganan
Exidol	Glafezon	Glifadex
Glifan	Glifanan	Glifarelax
Osodent	Privadol	

Product Name **Glafenine**
C.A.S. number **3820-67-5**

Trade and brand names

For regulatory information, see page 137

Product Name **Glucosamine sulfate**
C.A.S. number **3416-24-8**

Trade and brand names

Adaxil	Anartril	Antatril
Arthryl	Chitosamine	Corti-anartril
Dona 200-s	Dona compositum	Donna 200
Pona	Terramycin	Terrastatom
Tetracyn	Thiocondramine	Viartril

For regulatory information, see page 138

Product Name **Glutethimide**
C.A.S. number **77-21-4**

Trade and brand names

Alfimid	C "5"	Doriden
Doridene	Doriden-sed	Doridine
Dorimid	Dorimide	Elrodorm
Glimid	Gludorm	Noxyron
Rigenox	Sarodormin	Somid
Tardyl		

For regulatory information, see page 139

Product Name **Griseofulvin**
C.A.S. number **126-07-8**

Trade and brand names

Ansaid	B-qf	Cebutid
Delmofluvina	Delmofulvina	Flugolin
Flurofen	Froben	Fulcin
Fulcine	Fulcine-125	Fulcine-s
Fulvicin	Fulvicin p/g	Fulvicin u/f
Fulvicina	Fungivin	Gefulvine
Greosin	Grfulvin v	Gricin
Grifulin	Grifulvin	Grifulvin v
Grisactin	Grisaltin	Grisefalin
Grisefulin	Grisefulvin	Griseo
Griseomed	Griseostatin	Grisol
Grisovin	Grisovina	Grisovina fp
Grisovine	Grisovin-fp	Grisowen
Gris-peg	Grysio	Lamoryl
Lamoryl-novum	Lamoyl	Likuden
Likuden m	Microcidal	Neo fulcin
Neo-filcin	Norofluvin	Ocufen
Polygris	Sulvina	

For regulatory information, see page 140

Product Name **Halogenated hydroxyquinoline derivatives**
C.A.S. number **148-24-3**

Trade and brand names

Aci-jel	Benzease	Chinosol
Cp-cap	Dermacid	Dermoplast
Fennosan h 30	Heriat	Hydroxybenoxopyridine
Medicone derma-hc	Oxin	Oxine
Oxykin	Oxyquinoline-rhp	Pedivol
Phenopyridine	Preconsol	Quinoderm
Quinoped	Quinophenol	Recta medicone-hc
Semori	Serohinol	Serorhinol
Superol	Trimo-san	Triva douch powder
Triva jel	Tumex	

For regulatory information, see page 142

Product Name **Halogenated salicylanilides**
C.A.S. number **UN-KG-0034**

Trade and brand names

Alamin	Annul	Bada
Hilomid	Salinidol	Temasept

For regulatory information, see page 143

Product Name **Heptabarb**
C.A.S. number **509-86-4**

Trade and brand names

Heptadorm	Medapan	Medomin
Medomina	Medomine	

For regulatory information, see page 144

Product Name **Herpes simplex vaccines**
C.A.S. number **UN-KG-0035**

Trade and brand names

Deptavac hvt	Herpevac	Herpevax
Herpevax hvt	Hexidol	Marimune
Taf test	Tracherine	

For regulatory information, see page 144

Product Name **Hexachlorophene**
C.A.S. number **70-30-4**

Trade and brand names

99 armour formula	Acnestrol (broparestrol)	Acnestrol 3
Aeroseb-hc	Akne pyodron kur	Aknefug
Aknelan	Anacal	Armohex
Asecool	Aserbine cream	Bilevon
Bilvon vet	Bismodyne	Cidal
Cinthol	Clenisep	Coopaphene
Cordocel-h	Cotofilm	Cresophene
Delta pimafucort	Derivative	Derl
Derma 10	Derma leaf	Dermalex
Dermohex	Dermolle	Dexolan

Product Name **Hexachlorophene**
C.A.S. number **70-30-4**

Trade and brand names

Dial toilet soap	Distocid	Dk 2
Dovaso	Ecto pellicur	Ectofum
Emlab	Exofene	E-z scrub
Fisohen	Fisohexx	Fitty derm
Flenaphthol	G-11	Gamophen
Gamophen surgical soap	Germibon	Gill soap
Haemovin	Hcp	Heksaden
Hepadist	Hexabalm	Hexadespon
Hexal	Hexaph	Hexaphenyl
Hexaphenyl(1&b)	Hexascrub	Hexocreme
Hexosan	Hex-o-san	Jabon antiseptico
Kalacid	Lf 530	Loftyzon
Mamex	Mantacido	Med liquide san t
Micogamma	Nabac	Nestosyl
P 47	Paradentol	Permucal
Phaisohex	Phasca	Phiso scrub
Phisodan	Phisohex	Phisohex(winthrop)
Phiso-med	Phisoscrub	Phlebodine
Phorac	Phosohex	Predekzem
Pre-op	Pretulon	Proct anex
Prodermopur	Sapo-chlor	Sapoderm
Sebbafon	Sebo-cds	Sergi-cen
Skrub kreme	Solu-heks	Soy-dome
Steraskin	Steridermis	Steridermis washing cream
Ster-zac	Ster-zac antibacterial shaving foam	Ster-zac antibacterial soap
Ster-zac dc skin cleanser	Ster-zac powder	Sumasept
Super sat	Surg salve	Surge vet
Surgi-cen	Surofene	Tersaseptic
Toracsol	Torbetol lotion	Vanseb
Vetalderm	Vulnusol spray	Wesco hex
Wescohex	Westasept	Xerac
Zalpon	Zalpon antibacterial washing cream	

For regulatory information, see page 145

Product Name **Hexestrol**
C.A.S. number **5635-50-7**

Trade and brand names

Dihydrodiethylstilbestrol	Synoestrolum

For regulatory information, see page 145

Product Name **Hexobarbital**
C.A.S. number **56-29-1**

Trade and brand names

Citodon	Citopan	Cyclonal
Cyclonal sodium	Cyclopan	Dorico
Dorico soluble	Eviderm	Evipal
Evipal sodium	Evipan	Evipanl
Hexanal	Hexanastab	Hexanastab oral

Product Name **Hexobarbital**
C.A.S. number **56-29-1**

Trade and brand names

Hexatrol	Hexenal	Methexenyl sodium
Narcosan soluble	Noctivane	Noctivane sodium
Privenal	Sleepwell	Sodium narcosate
Sombucaps	Sombulex	Somnalert
Stodinox	Tobinal	Toleran

For regulatory information, see page 146

Product Name **Hyaluronidase**
C.A.S. number **9001-54-1**

Trade and brand names

Diffusin	Hylase

For regulatory information, see page 147

Product Name **Hydroquinone**
C.A.S. number **123-31-9A**

Trade and brand names

Aida	Ambi- skin tone	Artra
Black and white	Creme des 3 fleur d'orient	Eldopaque
Eldopaque forte	Eldoquin	Eldoquin forte 4% cream
Epocler	Esoterica	Esoterica facial
Esoterica regular	Esoterica sensitive skin	Esoterica sunscreen
Melanex	Melanex topical sollution	Melpaque hp
Melqui hp	Neostrata aha gel	Neostrata hq
Nuquin hp	Phiaquin	Pigmanorm
Porcelana	Sinquin	Solaquin
Solaquin forte	Solaquin forte sun bleaching	Superfade age spot
Ultraquin	Ultraquin plaine	

For regulatory information, see page 147

Product Name **Hyoscine methonitrate**
C.A.S. number **6106-46-3**

Trade and brand names

Mescomine	Mesconit	Skopolate
Skopyl	Skopyle	Viscope

For regulatory information, see page 148

Product Name **Ibuprofen**
C.A.S. number **15687-27-1**

Trade and brand names

Abbifen	Abuprohm	Abu-tab
Aches-n-pain	Acril	Actifen
Actiprofen	Actren	Addaprin
Advil	Advil 200 mg	Advil cold & sinus
Agisan	Aktren	Aldospray
Algiasdin	Algifor	Algisan
Algofen	Algofer	Altior
Amersol	Anadin ibuprofen	Analgesico

Product Name **Ibuprofen**
C.A.S. number **15687-27-1**

Trade and brand names

Analgil
Analgyl
Anco
Andran
Anflagen
Antalgil
Antiflam
Antiruggen
Apo-ibuprofen
Apsifen
Arfen
Artofen
Artren
Artril
Artrofen
Bayer select
Bayer select ibuprofen pain reliever
Benflogin
Betagesic
Betaprofen
Brofen 200 mg
Brofen 400 mg
Brufanic
Brufen
Brufert
Brufort
Buborone
Bufedon
Bufigen
Burana
Butylenin
Cesra
Children's advil
Children's motrin
Coadvil
Codafen
Codafen continus
Contraneural
Contrneural
Cope
Cuisialigil
Cunil
Cuprofen
Danilon
Dansida
Dentigoa
Dentigoa forte
Dignoflex
Dimetap sinus
Dimidon
Dismenodl n
Dolgirit
Dolgit
Dolocyl
Dolo-dolgit
Dologesic
Dolo-neos
Dolo-puren
Doltibil
Dolven
Donjust-b
Dorival
Dristan sinus
Duradyne
Dura-ibu
Duralbuprofen
Dysdolen
Ebufac
Ecoprofen
Ediluna
Emodin
Epobron
Esprenit
Evasprin
Excedrin ib
Exidol
Exneural
Femafen
Femapirin
Femidol
Fenalgic
Fenbid
Fenlong
Flubenil
Focus
Genpril
Guildprofen
Halprin
Haltran
Ibenon
Ibol
Ibosure
Ibruthalal
Ibu-attritin
Ibucasen
Ibu-cream
Ibufac
Ibufen tablets
Ibufen-l
Ibufug
Ibugel
Ibugesic
Ibuhexal
Ibular
Ibulav
Ibuleve
Ibulgan
Ibumetin
Ibuphlogont
Ibupirac
Ibuprin
Ibuprocin
Ibuprofen 200
Ibuprohm
Ibu-slo
Ibu-slow
Ibusure
Ibu-tab
Ibutad
Ibutid
Ibutop
Ibuvivimed
Ibux
Imben
Imbun
Inabrin
Incefal
Inflam
Inoven
Inza
Ipren
Iproben
Irfen
Isdol
Isisfen
Junifen
Kalma
Kos
Lacondan
Lamidon
Leonal
Librofem
Librofen
Lidifen
Liptan
Lisi-budol
Medipren

Product Name **Ibuprofen**
C.A.S. number **15687-27-1**

Trade and brand names

Mediprofen	Melfen	Menado ibuprofen usp
Midol	Midol 200 advanced pain formula	Midol ib
Migrafen	Minadol	Mobilat
Moment	Motrin	Motrin ib
Myprodol	Narfen	Neobrofen
Neobrufen	Nerofen	Niapren
Nobfelon	Nobfen	Novaprin
Novogent	Novoprofen	Nu-ibuprofen
Nuprin	Nurofen	Optalidon
Optifen	Opturem	Pacifene
Padudent	Pamprin	Pantrop
Parsal	Paxofen	Pediaprofen
Pfeil	Phor pain	Posodolor
Proflex	Prontalgin	Rafen
Rebugen	Recudik	Relcofen
Rheufen	Rimafen	Rofen
Roidenin	Rufen	Saleto
Saleto-600	Seclodin	Sedaspray
Serviprofen	Sine-aid ib	Solufen
Spedifen	Stadasan	Superior pain medicine
Supreme pain medicine	Supren	Suspren
Tabalon	Tempil	Tendar
Todalgil	Trauma-dolgit	Ultraprin
Urem	Valprin	

For regulatory information, see page 148

Product Name **Indalpine**
C.A.S. number **63758-79-2**

Trade and brand names

Lm 5008	Upstene

For regulatory information, see page 149

Product Name **Indometacin and indometacin farnesil**
C.A.S. number **53-86-1**

Trade and brand names

Argan

For regulatory information, see page 149

Product Name **Indoprofen**
C.A.S. number **31842-01-0**

Trade and brand names

Bor-ind	Endyne	Fenint
Flogosan	Flosin	Flosine
Flosint	Flosyn	Isindone
K 4277	Miantor	Praxis
Reumofene		

For regulatory information, see page 150

Product Name **Iodinated casein strophanthin (neo-barine)**
C.A.S. number **UN-KG-0038**

Trade and brand names

Coratose

For regulatory information, see page 150

Product Name **Iproniazid**
C.A.S. number **54-92-2**

Trade and brand names

Euphozid	Ipropran	Isotamine
Laniazid	Marsilid	Nydrazid
P-1-n forte	Pms isoniazid	Rifamate
Rimactane	Rimifon	Ro 7-1554
Teebaconin	Triniad	Uniad

For regulatory information, see page 151

Product Name **Isaxonine phosphate**
C.A.S. number **4214-72-6**

Trade and brand names

Nerfactor	Verfactor

For regulatory information, see page 151

Product Name **Isocarboxazid**
C.A.S. number **59-63-2**

Trade and brand names

Enerzer	Marplan	Marplon
Ro 5-0831/1		

For regulatory information, see page 151

Product Name **Isoprenaline**
C.A.S. number **7683-59-2**

Trade and brand names

Aerolone	Aerotrol	Afdosa
Aldo asma	Aleudrin	Aleudrina
Aludrin	Anthastmin	Asmadren
Asmalar	Asmastop	Atom-asma
Bellasthman	Dey-dose	Dispos-a-med
Duo-autohaler	Duo-medihaler	Dyspnoesan
Erydin	Euspiran	Frenal composium
Imuprel	Ingelan	Intal compositum
Iprenol	Iso-autohaler	Isomenyl
Isonorin	Isoprel	Isoprel-neomistometer
Isoprop	Isorenin	Isovon
Isuprel	Katwilon n	Lenoprel
Luf-iso	Medihaler-duo	Medihaler-iso
Meterdos-iso	Neo epinine	Nephenalin
Norisodrin aerotol	Norisodrin with calcium idodide	Norosodrine
Novodrin	Older	Orotenol
Prenomiser	Propynalin	Protenol
Saventrine	Sedantosol	Sooner

Product Name **Isoprenaline**
C.A.S. number **7683-59-2**

Trade and brand names

Suscardia	Vapo-iso	Vapo-n-iso

For regulatory information, see page 152

Product Name **Isotretinoin**
C.A.S. number **4759-48-2**

Trade and brand names

Accutane	Accutane roche	Apsor
Isotretinoin	Neovamin a acid	Neovitamin a acid
Ro 4-3780	Roaccutan	Roaccutane
Roacutan		

For regulatory information, see page 152

Product Name **Isoxicam**
C.A.S. number **34552-84-6**

Trade and brand names

Floxicam	Maxicam	Pacy
Pacyl	Vectren	

For regulatory information, see page 154

Product Name **Kaolin**
C.A.S. number **1332-58-7**

Trade and brand names

Biskapect	Chloropect	Collodyne
Diaguard forte	Diastat	Donnagel
Donnagel pg liquid	Donnagel-mb	Donnagel-pg
Enterosan	Fissan	Kaodinnon-narcotic
Kaolin w/pectin	Kaomagma with pectin	Kaomycin
Kaoneo	Kaopectate	Kaopectate n
Kaoprompt-h	Kao-spen	Kapetolin
Kc	Kln	Medipect
Noventerol	Parepectolin	Pectolin
Pectrolyte	Peterpect	Streptomagma

For regulatory information, see page 154

Product Name **Kebuzone**
C.A.S. number **853-34-9**

Trade and brand names

Benjor	Chebutan	Chepirol
Chetazol	Chetazolidin	Chetil
Chetopir	Chetosol	Copirene
Ejor	Gammachetone	Hichillos
Kentan	Kentan-s	Kenta-s
Kenzon r	Ketanol	Ketazon
Ketazone	Ketobutane-jade	Ketofen
Neo-panalgyl	Neufenil	Neuphenyl
Pecnon	Phloguron	Recheton
Reuchetal	Reumo	Tkb

Product Name **Kebuzone**
C.A.S. number **853-34-9**

Trade and brand names

Vintab	Vintop

For regulatory information, see page 155

Product Name **Ketoconazole**
C.A.S. number **65277-42-1**

Trade and brand names

Cerozalol	Cetonax	Fetonal
Fungarest	Fungarol	Fungo-hubber
Ketocidin	Ketoderm	Ketoisdin
Ketonan	Ketoral	Micoral
Micotek	Micoticum	Nizcrem
Nizoral	Nizoral 2% shampoo	Nizoral 20% cream
Nizovules	Nizshampoo	Oromycosal
Oronazol	Panfungol	Rofenid
Spike	Unidox	

For regulatory information, see page 156

Product Name **Latamoxef**
C.A.S. number **64952-97-2**

Trade and brand names

Baxal	Betalactam	Festamoxin
Latoxacet	Mactam	Moxacef
Moxalactam	Moxam	Moxatres
Oxacef	Priollat	Sectam
Shiomalin	Shiomarin	

For regulatory information, see page 158

Product Name **Lead oxide and lead salts**
C.A.S. number **UN-KG-0040**

Trade and brand names

Hiroval	Wndomethasone

For regulatory information, see page 159

Product Name **Levacetylmethadol**
C.A.S. number **34433-66-4**

Trade and brand names

Levomethadylacetate	Orlaam

For regulatory information, see page 159

Product Name **Levamfetamine**
C.A.S. number **156-34-3**

Trade and brand names

Amphedrine-m	Cydril

For regulatory information, see page 159

Product Name **Levamisole hydrochloride**
C.A.S. number **16595-80-5**

Trade and brand names

Vermisol

For regulatory information, see page 160

Product Name **Levarterenol**
C.A.S. number **51-41-2**

Trade and brand names

Adrenor	Levophed	Noradrec
Xylotox		

For regulatory information, see page 160

Product Name **Lindane**
C.A.S. number **58-89-9A**

Trade and brand names

Benhexachlor	Gamex	Gamma benzene
Hexachloride		

For regulatory information, see page 161

Product Name **Lipoic acid**
C.A.S. number **1077-28-7**

Trade and brand names

Liposan	Thioactacid

For regulatory information, see page 162

Product Name **Loperamide**
C.A.S. number **53179-11-6**

Trade and brand names

Amerol	Ami-29	Arret
Blox	Brek	Colifelin
Colifilm	Diareze	Dissenten
Dissenter	Duplibiot	Elcoman
Firtasec	Fortasec	Imodium
Imosec	Lopemid	Lopemin
Loperam	Loperan	Loperin
Lopermid	Loperyl	Motilix
Orulop	Pf 185	Pricilone
R-18553	Regulan	Regulane
Seldiar	Suprasec	Taquinol
Tebloc	Telboc	Totrtasec

For regulatory information, see page 162

Product Name **L-Tryptophan**
C.A.S. number **73-22-3**

Trade and brand names

Ardeytropin	Kalma	Optimax
Sedanoct	Tryptan	

For regulatory information, see page 164

Product Name **Lynestrenol**
C.A.S. number **52-76-6**

Trade and brand names

Anacyclin	Anacycline 101	Anacylin
Anacylin 101	Anacylin 28	Ancylin
Athilyn	Endometril	Exlutena
Exlution	Exluton	Exluton (a)
Exlutona	Fisioquens	Fysioqnens
Fysionorm	Fysioquens	Gestrol
Lindiol 2.5	Lyn ratiopharm	Lyn ratiophram sequenz
Lyndeol	Lyndile tt	Lyndiol
Lyndiol e	Lyndiol e.	Lyndiolett
Lynoenstrenol	Lyn-ratiopharm	Minette
Mini pregnon	Minifol	Minilyn
Ministat	Neo lyndiol	Neo-lindiol
Neo-lynobol	Nonovulet	Noracyclin
Noracyclin 22	Noracycline	Normophasic
Novostat	Org 485-50	Orgaluton
Orgametil	Orgametril	Orgametrol
Ovamezzo	Ovanon	Ovanone
Ovanon-e	Ovariostat	Ovoresta
Ovoresta m	Ovoresta micro	Ovosta
Ovostat	Ovostat-28	Ovostat-micro
Phasicon	Physiostat	Physistat
Pregnon	Pregnon-28	Restovar
Yermonil		

For regulatory information, see page 166

Product Name **Mazindol**
C.A.S. number **22232-71-9**

Trade and brand names

Dasten	Degonon	Fagolipo
Lipese	Magrilan	Mazanor
Mazanor tablets	Mazeldene	Mazinil
Maznor	Sanorex	Tenorac
Terenac	Teronac	

For regulatory information, see page 166

Product Name **Meclozine**
C.A.S. number **569-65-3**

Trade and brand names

Ancolan	Ancoloxin	Ancoloxine
Antivert	Bonamina	Bonamine
Bonine	Calmonal	Chiclida
Cobinamide	Diadril	Dradril
Duremesan	Itinerol	Mecazine
Navicalm	Neo-istafenc	Neo-istafene
Peremesin	Postafen	Postafene
Premesin	Ravelon	Rovert-m
Ru-vert-m	Sabari	Sea-leg
Supermesin	Superminal	Suprimal

Product Name **Meclozine**
C.A.S. number **569-65-3**

Trade and brand names

Taizerl	Ucb 5062	V-cline
Veritab	Vertizine	Vomaxine
Vomisseis		

For regulatory information, see page 167

Product Name **Megestrol acetate**
C.A.S. number **3562-63-8**

Trade and brand names

Citestrol	Co-ervonum	Combiquens
Femagest	Kombiquens	Megace
Megecat	Megeron	Megestat
Menoquens	Neo-delpregnin	Nia
Niaestine	Niagestin	Niagestine
Novaquin	Novokvens	Novolina
Novoquens	Oracolnal	Ovaban
Ovarid	Pallace	Serial 28
Volidan	Volplan	

For regulatory information, see page 168

Product Name **Mephenesin**
C.A.S. number **59-47-2**

Trade and brand names

Atensin	Avosyl	Bioglan m/g
Cresoxydiol	Curythan	Daserd
Daserol	Decontractyl	Decontracyl
Decontracyl-baum	Diloxol	Dioloxol
Forte	Geno-sal	Glykresinum
Glyotol	Glyptol	Kencaps
Kinavosyl	Lissephen	Mefentil
Memphenesin	Mepha-gesic	Mepherol
Mephesin	Mephesol	Mephson
Midisalb-m	Myanesin	Myocalm
Myocuran	Myolisysin	Myoxane
Neo-xoline-m	Nochyrol	Noctynol
Oranixon	Prolax	Relaxar
Relaxil	Relaxil-g	Renarcol
Rhex	Rhex "hobein"	Rp 3602
Salimed compound	Sansdolor	Sinan
Spartoloxyn	Spasmolyn	Stilalgin
Thioxidil	Tolansin	Tolax
Tolcil	Tolhart	Tolosate
Toloxyn	Tolseram	Tolserol
Tolseron	Tolsin	Tolulexin
Tolulox	Tolyspaz	Walconesin

For regulatory information, see page 170

Product Name **Meprobamate**
C.A.S. number **57-53-4**

Trade and brand names

3p bamte
Amepromat
Amosene
Anastress
Anatimon
Andaxin
Aneural
Ansietan
Ansiowas
Anzil
Apascil
Apo-meprobamate
Arcoban
Artolon
Atraxin
Ayeramate
Bamo 400
Biobamat
Biobamate
Calmax
Calmiren
Canquil-400
Cap-o-tran
Carb-a-med
Carbaxin
Cirpon
Cirponyl
Clindoorm
Coprobate
Crestanil
Cusitan
Cyrpon
Dapaz
Daritran
Detensitral
Dicandiol
Diron
Dolovisano
Dormabrol
Dormilfo n
Dystoid
Ecuanil
Edental
Epikur
Equanil
Equiner
Equinil
Equqtrqte
Fas-cile 200
Gadexyl
Gene-bamate
Harmonin
Hartol
Holbamate
Idemin
Indemin
Irs 109 a
Iterco
Juvamidon
Kaologeais
Kesso-bamate
Klort
Lan-dol
Larten
Lenicor
Lepetown
Libiolan
M.a.s.
M.p. trantabs
Mar-bate
Margaris
Meditran
Mepantin
Mepavlon
Mep-e
Meposed
Meprate
Mepriam
Meprin
Meprindon
Mepro
Meprobadal
Meprobamat
Meproban
Meprobil
Meprocompren
Meprocon cmc
Meprodil
Meprogesic q
Meprol
Meprolin
Mepron
Mepronel
Mepronil
Meprosa
Mepro-secergan 400
Meproserpina
Meprospan
Meprospan 400
Meprotabs
Meproten
Meprotil
Meproyrin
Meprozine
Meptran
Meriprobate
Mesmar
Metranquil
Micrainin
Microbamat
Midixin
Milspan
Miltaun
Miltown
Miltown s-r
Misedant
Morbam
My-trans
Neo-nervostal
Neo-tran
Nervonus
Neuramate
Neuro
Neurocalm
Novomato
Novomepro
Nyktogen
Oasil
Oasil procalmadiol
Odsil 10
Panquil
Paxin
Pensive
Pentaneural
Perequil
Pertranquil
Placitate
Pm 2
Pmb 4000
Prequil
Probal
Probasan
Probromato
Procalmidol
Promate
Protran
Psico-retard

Product Name **Meprobamate**
C.A.S. number **57-53-4**

Trade and brand names

Quaname	Quanil	Quietidon
Rastenil	Regium	Relaxin
Reostral	Restenil	Rilax
Robamate	Seda baxacor	Sedanyl
Sedavier	Sedazil	Selene
Selodorm	Serenade	Seril
Setran	Shalvaton	Sintown
Sk-bamate	Sopanil	Sowell
Spantran	Spasmobamat	Stensolo
Stopayne	Tamate	Tcm 200
Tcm 400	Trankilin	Trankvilan
Tranlisant	Tranmep	Tranquil
Tranquilan	Tranquilax	Tranquiline
Trelmar	Tri-reumo-campil	Urbil
Urbilat	Vasocalm	Vio-bamate
Visano cor	Vistabamate	Wescomep

For regulatory information, see page 170

Product Name **Mercuric derivatives (topical)**
C.A.S. number **UN-KG-0046**

Trade and brand names

Mercuro clinico	Mercurocol	Neko

For regulatory information, see page 304

Product Name **Mesna**
C.A.S. number **19767-45-4**

Trade and brand names

Ausobrone	Mexnex	Mistabron
Mistabron co	Mistabronco	Mistalon
Mucofluid	Mucolene	Uromitexan
Uronexitan		

For regulatory information, see page 170

Product Name **Metamfetamine**
C.A.S. number **537-46-2**

Trade and brand names

Amone	Desoxyn	Dexophrine
Dexoval	Doxyfed	Doxyn
Drinalfa	Efroxine	Euphrodinal
Gardstat	Gerobit	Geronyl
Lemobese	Madrine	Mediatric
Meloda	Metamsustac	Methampex
Methedrinal	Methedrine	Neodrine
Neodrine-triple	Norodin	Obedrin-la
Obelones	Obe-slim	Pervitin
Phedrisox	Phelantin	Philopon
Soxympamine	Syndrox	Tonedron

Product Name **Metamfetamine**
C.A.S. number **537-46-2**

Trade and brand names

Uno

For regulatory information, see page 171

Product Name **Metamizole sodium**
C.A.S. number **68-89-3**

Trade and brand names

Abalgine
Acabel compositum
Acefalgin
Acrobal
Acrogesico
Adolkin
Algia-nil
Alginodia
Alginodia compose.
Algisedal
Algobuscopan
Algocalmin
Algopriv
Algopyrin
Algopyriv
Alkozin
Amiglan
Aminocid
Amitralil
Ampi tumisan
Anadex
Analcedor
Analgin
Analginum
Analject
Anarinyl
Anchrina
Andolor
Anespas cpto
Angiter
Ankaljin
An-t
Apasmo
Arantil
Arpf
Arquidon
Artritex
Ascorbalgine
Ascortin
Aseptobron
Atecilina
Atn-020/2
Aureomicina
Avafortan
Ayoral
Baralgin
Baralgine
Bayer 1387
Bebealjin
Bebigut
Belatropin
Belflex/2
Beneurin
Beserol
Bexopirona
Biogamma2
Biotangin
Bipasmin compuesto
Bonpyrin
Bort
Bristacilia
Britercina
Bromalgin
Bromalgon
Broncofenil
Broncolysin
Bucarboxal
Buscapina comp.
Buscapina compuesto
Buscapina compuestum
Buscol compositum
Buscopan composto
Buscopan compostum
Buscopina compostum
Butalgine
Butylpan
Byladoce
Calgayan-c
Calmetron
Camizol
Causalon
Cessantyl
Chini-med
Cintaverin compuesto
Citalgan
Clizim
Clofexan
Codalgin
Codasal injetavel
Cofen
Colgenol
Comaril 5000
Conmel
Corilin pediatric
Cortempirol
Cortitracin
Cronopen balsamico
Deltricin
Devalgin
Dexa butarin
Di-bal-rone
Dimethedon
Dinopirina
Dioxadol
Dipiron
Dipirona
Dipirone
Diprofarm
Dipyrivo
Dipyrone
Dispalgine
Divarin
Divarmin
Do-ba-rone
Dobetin
Dolaren
Dolatets
Dolazon
Dolemicin
Dolispan
Dolispasmo
Dolo adamon
Dolo baralgine
Dolo buscopan
Dolo nerv
Dolo neurobion

Product Name **Metamizole sodium**
C.A.S. number **68-89-3**

Trade and brand names

Dolo neurobion forte
Dolo pangavit
Dolo raptalgin
Dolo spasuret
Dolojudolor
Dolo-neurobion
Dolopirina
Doloscopin
Dopiral
Dorflex merrell
Dorlisin
Doron
Dorscopena
Dorsedin
D-pron
Dumalgin
Duralnordin
Dya-tran
Edgartet
Eespanal
Enzipan combinado
Espasfher
Espasmir
Espasmo-cibalgina
Espasmoqual
Espasmotex
Espasmoviral
Espyre
Farbinol
Farmolisina
Feverall
Fevonil
Flogolisin
Formatrix
G.r. ulix compuesto
Genservet
Gentil
Geralgine
Gifaril
Glutisal
Greplicina belsa
H 116
H 117
H 118
Hagalgin
Hasain
Indextron
Influbene
Kb-502
Kefren
Kesan
Keypyrone
Killgrip
Kipyrone
Kitax alpha
Kitax n
Konitan
Labymetacincpo
Lactmicina
Lagalgin
Lagalgine
Lamprcsnum
Lapalgine
Larg 731
Lasain
Lavaciclina
Levapa
Levismon
Lisador
Lisalgil
Maggor
Magnalsa
Magnemidon
Magnol
Magnopyrol
Mapir
Mecoten
Megal
Melpen
Menalgine
Metapyrin
Methampyrone
Metilon
Mialgan
Minalgin
Minalgine
Minoval
Miocitalgan
Nadalgine
Naftalgin
Naltrium
Napasone
Naron
Nartate
Natralgin
Natric
Neo-melubrim
Neo-melubrin
Neo-melubrina
Neo-melubrine
Neo-oxipen
Neosal-n
Neosoldina
Neuro-fortamin
Nevralgin
Nevralgina
Nisidina
Nlo conicilina balsamica
Nobelgin
Nolotil
Nolotil composirum
Notermin
Novacid
Novalcina
Novaldin
Novalgetol
Novalgin
Novalgin quinine
Novalgina
Novalgine
Nova-lyseen
Novamidazofen
Novamidazophen
Novamideazophene
Novamina
Novaminophenazone
Novaminsulfon
Novaminsulfon ratiopharm
Novaminsulfone sodium
Novaminsulfonium
Novaminsulfonum
Novaminsulton
Novazolon dexametasona
Noveltex
Novemida
Novemina
Novil
Oftlamin
Optalgin
Orphalginen
Ortopirona
Oxiquiunazine
Pabron gold
Panalvon
Panax
Patalgin
Pentrodin

Product Name **Metamizole sodium**
C.A.S. number **68-89-3**

Trade and brand names

Phanalgin	Pharmalgine	Porbiot
Pplan 2500	Probaphen	Prodol
Prydonnal	Pydirone	Pyralgin
Pyralgine	Pyretin	Pyril
Pyrilgin	Pyriligin	Pyrisan
Pyrojec	Quarelin	Reflex rectal
Relexal compuesto	Repriman	Resquim
Rheuma-spalt	Ridol	Rumalisine
Rupalgin	Santeprednisan a	Sebon
Sedabel	Sedarel	Sedarene
Sedazepane	Selpiran	Sertalanalgesico
Severen	Severin	Sinalgex
Sintaverin	Sinvirol	Sistalgin
Spasdolsom	Spaslar	Spasmalgon
Spasmin	Spasmium-comp.	Spasmizol
Spasmodor	Spasmopyralgin	Spasmothil
Sufonovin	Sulfonovin	Sulpin
Sulpyrin	Sulpyrine	Supadol
Supergine	Surpyrine	Syntaverin
Tanper	Tapal	Tega-pyrone
Temp	Tempil	Tepal
Termonil	Tetrabal-hosbon	Tetraspasmil
Tiadexol	Tiartan	Toloxin andromaco
Trenteron	Triartan	Trinalgen
Tumisan globulina	Ultragim	Ultragin
Unagen	Unalgen hc	Vetalgin
Viperone	Visceralgine forte	

For regulatory information, see page 171

Product Name **Methapyrilene**
C.A.S. number **91-80-5**

Trade and brand names

3p pane	Brexin	Conac
Dexapirilene	Dormin	Duohist
Duo-tussin	Dylhista	Histadyl
Histadyl ec	Hitalones	Isopap
Lallamin	Lullamin	M.p.
Methistaline	Methril spansul	M-p
Myci-spray	Norane	Paradormalene
Peral	Placitabs	Pyrathyn
Pyrinistab	Pyrinistol	Rejam
Rest-on	Restryl	Semikon
Tenalin	Thenylene	Thionylan
W83		

For regulatory information, see page 175

Product Name **Methaqualone**
C.A.S. number **72-44-6**

Trade and brand names

Aqual	Babix-rectal	Bon-sonnilal
Cateudyl	Citexal	Diudorm
Divinoctal	Dormigoa	Dormigoa-schlafmittel
Dormir	Dormisedilal	Dormogen
Dormutil	Duromine m 40	Eatan
Fadormir	Holodorm	Hyminal
Hypocol	Hyptor	Hyptor base
Ipnofil	Isonox	Jurmun
Mandrax	Maoa	Melsed
Melsedin	Melsedine base	Melsomin
Mepalgic	Mequal	Mequelon
Mequin	Metadorm	Metakualon
Metakvalon	Metaqualon	Methadorm
Methaquaion	Methaqualoneinone	Methased
Methasedil	Metodril	Metodril 2
Metodril napa	Metolquizolone	Mollinox
Motolon	Mozambin	Mtq
Neuro a2	Nitro-tromacardin	Nobadorm
Nobadorm compostium	Nobedorm	Noctilene
Noctulon	Normi-nox	Normorest
Noxybel	Oblioser	Omnyl
Optimil	Optinoxan	Orthonal
Ortonal	Paldona	Pallidan
Papatral	Parest	Parmilene
Paxidorm	Pexaqualone	Portaderm
Pro dorm	Quaalude	Qz 2
Rebuso	Rectulon	Revonal
Ric 272	Riporest	Rm 526
Rorer 148	Rorer 714	Roulone
Rouqualone	Rovonal	Savedorm
Sedalone	Sedanoct	Sedatyl
Silternum	Sindesvel	Sleepinal
Somberol	Somnafac	Somnex
Somnibel	Somnium	Somnofac
Somnomed	Somnosan	Somnotropon
Sonal	Sopor	Soval
Sovelin	Soverin	Sovinal
Spasmopront	Tiqualone	Toquilone
Toraflon	Toriador	Torinal
Tr 495	Tualone	Tuazole
Tuazolona	Tuazolone	Vitalone

For regulatory information, see page 176

Product Name **Methiodal sodium**
C.A.S. number **126-31-8**

Trade and brand names

Abrodan	Abrodil	Conturex
Diagnorenol	Kontrast	Myelotrast

Product Name **Methiodal sodium**
C.A.S. number **126-31-8**

Trade and brand names

Neo-sombraven	Radiographol	Segosin
Sergozin	Skiodan sodium	Urombal

For regulatory information, see page 177

Product Name **Methylphenidate**
C.A.S. number **113-45-1**

Trade and brand names

4311 ciba	Calocain	Centedrin
Cetedrin	Meridil	Methidate
Ritalin	Ritalin sr	Ritaline
Rubifen		

For regulatory information, see page 177

Product Name **Methyprylon**
C.A.S. number **125-64-4**

Trade and brand names

Noludar	Nolurate

For regulatory information, see page 178

Product Name **Metofoline**
C.A.S. number **2154-02-1**

Trade and brand names

R 4-1778/1	Versidyne

For regulatory information, see page 179

Product Name **Mianserin**
C.A.S. number **24219-97-4**

Trade and brand names

Athimil	Athymil	Bolvidon
Lantanon	Lerivon	Miansan
Norval	Org gb 94	Tolvin
Tolvon		

For regulatory information, see page 180

Product Name **Mifepristone**
C.A.S. number **84371-65-3**

Trade and brand names

Mifegyne	Ru-486

For regulatory information, see page 181

Product Name **Miglustat**
C.A.S. number **72599-27-0**

Trade and brand names

Vevesca

For regulatory information, see page 181

Product Name **Minocycline**
C.A.S. number **10118-90-8**

Trade and brand names

Klinomycin	Lederderm	Mino-50
Minocin	Minomycin	Mynocine

For regulatory information, see page 182

Product Name **Misoprostol**
C.A.S. number **59122-46-2**

Trade and brand names

Cyprostol	Oxaprost	Prostalgin

For regulatory information, see page 182

Product Name **Mofebutazone**
C.A.S. number **2210-63-1**

Trade and brand names

Arcobutine	Arcomonol	Buta lyseen
Butazone	Chemiartrol	Clinit
Diadin	Fenartril	Jovapyrin
Mobutazone	Mobuzon	Mofasal
Mofesal	Monazan	Monazone
Monbutina	Monobutina	Monobutyl
Monofen	Monomil	Monoprine
Monorheumetten	Monozon	Mozol
Reumatox	Rheuma	Rheuma-cur
Rheumaorctat	Rivodol	Sodepyrine b 1

For regulatory information, see page 182

Product Name **Nabilone**
C.A.S. number **51022-71-0**

Trade and brand names

Cesamet

For regulatory information, see page 185

Product Name **Nandrolone decanoate (injectable)**
C.A.S. number **360-70-3**

Trade and brand names

Abolon	Activin	Anabolin la 100
Anador	Anadur	Analone-50
Androlone d	Androlone d 100	Androlone d 50
Decabolin	Deca-durabol	Deca-durabolin
Deca-durabolin decanoate	Deca-hybolin	Deca-noralone
Docabolin	Durabol	Durabolin
Fherbolico	Fortabolin	Hybolin-decanoate
Iebolan	Kabolin	Keratyl
Methybol	Methybol-depot	Nandrolone decanoate
Nordecon	Retabolil	Stenabolin
Sterobolin	Turinabol-depot	

For regulatory information, see page 186

Product Name **Nandrolone phenylpropionate (injectable)**
C.A.S. number **62-90-8**

Trade and brand names

Activin	Anabolicas	Anabolicus
Anabolin depot	Anabolin la-100	Anador
Anadur	Androline	Androlone
Androlone-d	Anticatabolin	Bexobolic
Deca-durabol	Decadurabolin	Deca-durabolin
Docabolin	Durabolin	Durabolin phenpropionate
Dynabalon	Energital	Fenobolin
Fherbolico	Fts	Hepa-obaton
Hybolin decabiate	Hybolin improved	Kabolin
Keratyl	Kompleteron	Menidrabol
Methybol-depot	Nandrobolic	Nandrolin
Neo-durabolic	Nerobil	Nerobolil
Nerobolin	Neutrosteron	Norabol
Noralone	Norandrol	Norandros
Noromon	Norstenol	Nortesto
Npp	Ntpp	Orgabolin
Phenobolin	Sintabolin	Stenabolin
Strabolene	Superanabolon	Superbolin
Suprabolin	Turinabol	

For regulatory information, see page 186

Product Name **Nefazodone**
C.A.S. number **2004-0-0008**

Trade and brand names

Serzone

For regulatory information, see page 187

Product Name **Neomycin sulfate**
C.A.S. number **1405-10-3**

Trade and brand names

Abilene	Akentect	Amcort
Amphocort	Antibitulle	Apokalin
Aurex	Auriod	Baneopol
Barriere-mycin	Bastu-angin	Bedermin 100
Benestermycin	Bio hubber	Biodry
Biofradin	Biofur	Biosol
Biosol-m	Bio-vitastrept	Bivacyn
Blastoestimulina	Bykanula	Bykomycin
Canaural	Canoral	Cebemyxine
Cefrocyn	Cg 3224	Cicatrex
Cleniderm	Conderm	Conjuctilone
Cornemin	Cortinen	Damapo
Davimycin	Degramycin	Derbitan antibiotico
Dermicema	Dermo sonerge	Dermoface
Dermosan	Dermovate-nn	Derobion
Dexaamisolone-n	Dexabiotan	Dexacidin
Dexamist	Dexavetaderm	Diacin
Dia-ject	Diarest	Dicortineff

Product Name **Neomycin sulfate**
C.A.S. number **1405-10-3**

Trade and brand names

Dienterol
Dimicina
Doreplaston/doser/f
Dorithicin
Dulcicortine
Duphacerate
Dv 201
Emcortina
Emorex k berna
Enbacin
Endomixin
Enteromac
Enteropast
Enterosintex
Eustoporin
Extracort
Febrizene
Fissan
Fl 6321 n
Flogocid
Fluonid
Fml-neo-liquifilm
Foille
Forbesotic
Formula 888
Forte
Forticillin
Fradyl
Frakidex
Frakitacine
Gastromycin
Gregoderm
Gustibon
H plus n
Hagrosept
Halicomb
Halog
Heliomycort
Hydrocortiderm
Hydro-neo oculos
I-caps
Idepa
Ido-op
Intradermo caf
Iodentero0neomicina
Itro
Jenomycin
Kaomycin
Kaopectate n
Kortikiod mepha
Lanbiotic
Larmicin
Latodurin
Linitut
Locorten
Mammanopen
Mastrinal
Medisec neo
Medisec-cloxa
Medri-biotic
Meimyd
Menaderm antiacne
Myacyne
Mycerin
Mycidex
Mycifradin
Myciquent
Mycimist
Mycipo
Mytrex
Nasomixin
Naso-neomicin
Nasydrin
Nefluan
Neimicina roger
Neo decaderm
Neo-analsona
Neoaristovet
Neobacimyx-h
Neobicin
Neobiotic
Neobrettin
Neobristan
Neo-cantil
Neocidin
Neocillin
Neoclox
Neocones
Neodecasone
Neo-delta-cortef
Neofluid
Neo-hydro
Neointestin
Neolate
Neo-m
Neomac
Neo-mantle
Neo-mastitar
Neomin
Neomix
Neomycane
Neo-myx
Neo-otosol-hc
Neopec
Neopenol
Neopt
Neo-remusin
Neostrep
Neosule
Neosulf
Nifuramicin
Nisocla
Nisoclyn
Nisodyn
Nivemycin
Nodryl
Nokamycin
Noperil
Normoc
Npa
Ophthlmycin
Optiprime opthcoat
Optison
Optisone
Oribiotic
Oterna
Oticair
Oto vitna
Otocortison
Oto-flunal
Otomycin
Oto-sinerbe
Panotile
Paralen
Parkeole
Parkesteron
Pentalmicina
Pervet
Phytacorcin
Pivalone
Polemycin
Polybactrin-g
Polydexa
Polygynax
Poly-pred
Polyspecrin
Porcijec

Product Name **Neomycin sulfate**
C.A.S. number **1405-10-3**

Trade and brand names

Prednicidin	Prevotec	Propaderm-n
Pulveodil	Pyocidin hc	Quadrex
Renokab	Rino	Rino vitna
Rinofilax	Rinojet	Rovicine
Saleton	Salvacolina nn	Sanibiovit
Sanimix	Sanistress	Secantol
Septa	Septomixine forte	Silderm
Siquent neomycin	Sofan	Sorbitoxin
Spersapolymyxin dispersa	Steros-anal	S-thalmic
Stiedex	Sulfix-6	Super masticort
Super mastitare	Synalar polyvalent	Syralbina
Tampovagan	Tariston	Telestyl
Tiframild	Tobispray	Topicon
Topitasico	Tresaderm	Tribiotic
Tri-bow	Tricilone	Tri-optics
Troc	Trofodermin	Tweenal
Ubrocelan	Ucb 630	Uniriod
Uro-beniktol	Uro-nebctin	Varicella-rit
V-cortanmycetine	Vetroyl	Vetsovate
Vista-methasone n	V-softa	

For regulatory information, see page 187

Product Name **Nevirapine**
C.A.S. number **129618-40-2**

Trade and brand names

Nevimune	Viramune

For regulatory information, see page 188

Product Name **Nialamide**
C.A.S. number **51-12-7**

Trade and brand names

Espril	Nialamid	Niamid
Niamidal	Niamide	Niaquital
Niaquitil	Niazin	Novazid
Nuredal	Nyazin	Psyco-retard
Surgexl		

For regulatory information, see page 188

Product Name **Nimesulide**
C.A.S. number **51803-78-2**

Trade and brand names

Nimulid

For regulatory information, see page 189

Product Name **Nitrefazole**
C.A.S. number **21721-92-6**

Trade and brand names

Product Name **Nitrefazole**
C.A.S. number **21721-92-6**

Trade and brand names

Altimol
Emd 15700

For regulatory information, see page 190

Product Name **Nitrofural**
C.A.S. number **59-87-0**

Trade and brand names

Acmor
Acmor-s
Acutol
Akutol
Aldomycin
Alfucin
Amifur
Anginofur
Auroid
Babrocid
Beca furazona
Bifuran
Burnazone
Chemofuran
Coxistat
Dermobion
Dymazone
Ectofural
Escofuran
Escofuron
Fluorobioptal
Fultrexin
Fura
Furacilinum
Furacin
Furacinas
Furacine
Furacinethin
Furacinetten
Furacin-sol
Furacin-streusol
Furacoccid
Furacocid
Furacol
Furaderm
Furaldon
Furalone
Furan
Furan-ofteno
Furaplast
Furaseptin
Fura-septin
Furaskin
Fura-vet
Furazin
Furazina
Furazol w
Furea
Furesan
Furesol
Furosem
Furotalgin
Furovol
Germax
Germex
Ginejuvent
I fomula
Ii formula
Kamfomen
Kindrog
Lifuzol
Macmiror
Mammex
Mammiject
Mastidol
Mastofuran
Muldacin
Nefco
Neovagon
Nfs
Nfz 1
Nfz mix
Nifucin
Nifuzon
Nitocetin
Nitrocol plus
Nitro-rea
Nitrozone
Notaba
Rivafurazon
Sanifur
Scandantin
Shield
Sulfamyton-n
Taristop
Tranoxa
Tuocurine
Urafadyn
Uroletten
Vabrocid
Viropulver
Yalrocin
Yatrocin
Zoppin spray blu

For regulatory information, see page 190

Product Name **Nitrofurantoin**
C.A.S. number **67-20-9**

Trade and brand names

Furan
Nitrofan

For regulatory information, see page 191

Product Name **Nitroxoline**
C.A.S. number **4008-48-4**

Trade and brand names

5-nitrok	Dovenix	Entercol
Enterocol	Isinok	Nibiol
Nicene	Nikinol	Nikopet
Noxibiol	Noxine	Trodax
Uritrol	Urocoli	Uro-coli

For regulatory information, see page 191

Product Name **Nomifensine**
C.A.S. number **24526-64-5**

Trade and brand names

Alival	Anametrin	Caribium
Hoe 984	Hostalival	Merital
Merival	Musettamycin	Neurolene
Nomival	Psicronizer	Psyton

For regulatory information, see page 192

Product Name **Norethisterone enantate (injectable)**
C.A.S. number **3836-23-5**

Trade and brand names

Binovum	Brevicon	Brevinor
Conceplan	Doryxas	Gesta plan
Lg 335	Medicon	Menonorm
Menophase	Miconor	Modicon
Neocon	Nor 50	Noriday
Norigest	Norimin	Noristerat
Norlutate acetate	Nor-q-d	Norquentiel
Norquest fe	Novulon	Nur-isterate
Orlestrin	Ortho-novum	Ovcon-50
Ovismen	Ovosiston	Ovysmen
Primolut	Tri-norinyl	Utovlar

For regulatory information, see page 192

Product Name **Noscapine**
C.A.S. number **128-62-1**

Trade and brand names

Bequitussin	Bisolvon compositum	Broncha-tulisan eucalyptol
Broncho-tulisan eucalyptol	Brosolin-rectocap	Capval
Codipect	Codyl	Codyl cum expectoras
Coscopin	Coscotab	Degoran
Dettuso	Difimetus	Difimetus compositum
Finipect	Hederix	Lyabex retard
Lyobex	Narcotussin	Nipaxan
Nipaxon	Nitepax	Nosaclin
Noscalin	Noscapal	Noscapect
Noscarex	Noscatuss	Reatos
Rectolmin bronquial	Ribelfan	Spasmofen
Stilco	Teletux	Tucotin

Product Name **Noscapine**
C.A.S. number **128-62-1**

Trade and brand names

Tuscapin	Tussamine plus	Tussanil n
Tusscalman	Tussicure	Tussisedal
Tussoretard		

For regulatory information, see page 193

Product Name **Novobiocin**
C.A.S. number **303-81-1**

Trade and brand names

Albamycin

For regulatory information, see page 194

Product Name **Opium in antitussive preparations**
C.A.S. number **8008-60-4**

Trade and brand names

Dia-quel	Escopon	Ka-thal-pec
Pantopon	Pat	

For regulatory information, see page 195

Product Name **Oxyphenbutazone**
C.A.S. number **129-20-4**

Trade and brand names

Algi-tandril	Anarreumol-b	Artroflog
Artzone	Butaflogin	Butapirone
Butazonic	Buteril	Butilene
Californit	Campozim	Crovaril
Defolgin	Difmedol	Dolo-phlogase
Dolo-tandril	Fibutrox	Flanaril
Floghene	Flogistin	Flogitolo
Flogodin	Flogoril	Gp 40705
Iltazon	Iltoxon	Imbun
Inflamil	Iridil	Isobutil
Kymalzone	Metabolite i	Mindaril
Miyadril	Mysite	Neo-farmadol
Offitril	Oflamin	Optimal
Otone	Oxalid	Oxybutazone
Oxybutol	Oxybuton	Oxyperol
Oxyphenbutone	Oxyphentamin	Phlogase
Phlogistol	Phlogont	Phloguran
Pilabutina	Piraflogin	Rapostan
Realin	Rheumapax	Rumapax
Segudol	Suganril	Tanal
Tandacot	Tandalgesic	Tandearil
Tanderil	Telidal	Tendearil
Teneral	Vefren	Visubutina

For regulatory information, see page 197

Product Name **Oxyphenisatine acetate**
C.A.S. number **115-33-3**

Trade and brand names

Acelax	Acetalax	Alophen pills
Ameiax	Api-slender	Artroflog
Artzone	Belloform	Biivectan
Bisflatan	Boxogetten	Brocatine
Buta pirone	Butaflogin	Buteril
Butilene	Butofen	Butolfen
Bydolax	Californit	Chlofel
Chur-lax	Ciracen	Cirotex
Cirotyl	Contax	Critex
Curolax	Darmoletten	Deililax
Dialose plus	Diasatin	Ditinil
Ditmedol	Espotabs	Eulaxin
Evac-u-gen	Evac-u-lax	Ex-lax
Ex-lax pills	Febutolo	Fenisan
Fibutrox	Fim-a-mint	Fin-a-mint gum
Fisiolax	Flib 518	Flogistin
Flogitolo	Flogodin	Imbun
Inlax	Ipebutona	Iridil
Isaaxan	Isacen	Isaphen
Isaphenyn	Isobutil	Isocrin
Izaman	La 96	Lavema
Laveman	Laxan-vomoxin	Laxaseptol
Laxem	Laxnormal	Laxocol
Laxocoleva	Laxo-isatin	Laxon
Laxos	Laxyl	Lisagal
Med-laxan	Menabil complex	Muxol
Naleran	Neocervulax	Neo-favmadol
Neo-soldana	Nourilax	Nurilaksi
Obstilax	Otone	Oxalid
Oxibutol	Oxybutazone	Phenlaxine
Phenolax	Phlogase	Phlogistol
Phlogont	Piraflogin	Poliflogil
Potsilo	Promassolax	Promassoletten
Prulet	Prulet liquitab	Prusol
Puragaceen	Purgaceen	Purgophen
Rapostan	Regal	Rheumapax
Rivolax	Rumapax	Sanapert
Schokilax	Syndian	Tandacote
Tandalgesic	Tandearil	Tanderil
Tanderil-alka	Tete-lax	Validil
Veripague		

For regulatory information, see page 199

Product Name **Oxytocin**
C.A.S. number **50-56-6**

Trade and brand names

Oxytocin	Pituitrin

For regulatory information, see page 201

Product Name **Oxytocin**
C.A.S. number **50-56-6**

Trade and brand names

Product Name **Paracetamol**
C.A.S. number **103-90-2**

Trade and brand names

Anacin	Crocin	Tylenol

For regulatory information, see page 201

Product Name **Paromomycin**
C.A.S. number **7542-37-2**

Trade and brand names

Gabbroral	Humagel	Humatin
Sinosid		

For regulatory information, see page 202

Product Name **Pectin**
C.A.S. number **9000-69-5**

Trade and brand names

Adm	Arhemapectin	Astriharina s
Betaine digestive aid	Bio hubber	Bio hubber fuerte
Biskapect	Chloropect	Collodyne
Dexinca	Diacalm	Diaguard
Diaguard forte	Diareze	Diarrhosan d
Diastat	Diban	Diban diet complex 1500
Diet-trim	Donnage	Donnagel
Donnagel pg capsule	Donnagel-mb	Donnagel-pg
Enterolyte	Estreptokectil	Estreptonetrol
Estreptoral	Estreptosirup	Fiblet
H.e.c	Humagel	Kantrexil
Kaomagma	Kaomagma with pectin	Kaomycin
Kaoneo	Kaopectate	Kaopectate n
Kaopectin	Kaoprompt-h	Kao-spen
Kaostaten	Kln	Medipect
Neopec	Norquinol	Noventerol
Orahesive	Parepectolin	Pectigels
Pectolin	Pectrolyte	Peterpect
Pomana a	Salvacolina nn	Sorbitoxin
Streptomagma	Varihesive	

For regulatory information, see page 203

Product Name **Pentazocine**
C.A.S. number **359-83-1**

Trade and brand names

Fortagesic	Fortal	Fortalgesic
Fortral	Fortralin	Fortwin
Liticon	Pentafen	Pentalgina
Sosegon	Talacen	Talwin
Talwin nx		

Product Name **Pentazocine**
C.A.S. number **359-83-1**

Trade and brand names

For regulatory information, see page 204

Product Name **Pentobarbital**
C.A.S. number **76-74-4**

Trade and brand names

Aethaminalum	Barbityral	Barbopent
Burtylonel	Butylone	Cafergot p.b.
Calpental	Carbrital	Chloropent
Continal	Di-barbs	Dipental
Distonocalm	Embutal	Ergobel plus
Ethaminal	Hypnol	Hypnotal
Hyptonal	Insom rapido	Isoamytal
Isobarb	Isom rapido	Iturate
Mebubarbital	Mintal	Napental
Narcoren	Nembudeine	Nembutal
Neodorm	Nicaphlogyl	Novarectal
Nova-rectal	Novopentobarb	Novo-pentobarb
Or-trin	Pacifan	Palpent
Pembul	Penbar	Penbon
Pental	Pentalgin	Pentanca
Pentobarb	Pentodorm	Pentodormol
Pentogen	Pentolos	Penton
Pentone	Petab	Petonel
Praecicalm	Prodormol	Repocal
Rivadorm	Schlafen	Sedanox
Sombutol	Somnopentyl	Somnophyt
Somnotol	Sonistan	Sopental
S-spac	Stopp-15	Wans
Wigraine-pb	Yastyl	

For regulatory information, see page 204

Product Name **Phenacetin**
C.A.S. number **62-44-2**

Trade and brand names

292-comprimes	369, pulvules	3p bugesic
Acetylosal	Achrocidin	Acifein
Acromas	Acropac	Algocratine
Alumidyne	Amypron	Amypylo-n
Anapac	Angifebrine	Anodin
Antiflu des	Anti-opt	Apadine
Apc	Apidin	Apracur
Arcin	Asa compound	Asceine
Ascophen	Ascthimindon	Asfeen
Ban-o-pain	Bexophene	Bromo quinina
Bromo seltzer	Buff-a-comp	Butal compound
Butorinal	Calmante muri	Capacetyl
Capramin	Caps dr knapp	Capsula dr. knapp
Ceachin	Cefinal	Cequinyl fort

Product Name **Phenacetin**
C.A.S. number **62-44-2**

Trade and brand names

Chloracet
Citra-fort
Citramol
Clistanol
Codempiral
Codopyrin
Codral
Compralgyl
Conta-schmerz
Contradouleur
Coricidin
Coricidin f
Coriforte
Coryban-d
Cotradol
Daprisal
Darvocomp-n
Darvon compound
Darvon compuesto 65
Darvon n compuesto
Dasikon
Dasin
Dasin ch
Dbnf
Dentocaps
Dolafort
Dolene
Dolomo
Dolostop
Doloxene comp forte, capsules
Dolviron
Doregrippin
Doscafis
Doviron
Drinacet
Edrisal
Empiral
Empirin compound
Emprazil
Emprazil-c
Epragen
Estrifen
Femcaps
Fenacetina
Fenascor
Fenbutal
Fenidina
Fenina
Fiorinal
Flexalgit
Florital
Fonal
Fortacyl
Fridol
Friocellin
Funapann
Gelonida
Gesic
Gewodin
Gripanidan
Harbureta
Helvagit
Hemagene taylor
Hjorton's powder
Hocophen
Icn 65
Influenza tabs
Isollyl
Isomidon
Kafa
Kalmin
Kapron
Katagrip
Lekasin
Linarol
Malex
Manasul
Mardon
Melabon
Migesic
Mironal
Monacet
Myolate
Neopyrine
Nevral vit b1 b6
Norgesic
Novacetol
Novosephalgin
Olfano
Omniadol
Pamprin
Papnin
Para-grip
Paramette
Parametten
Paratodol
Pargesic compound
Pasadex
Pedigel
Percobarb
Percodan
Pertonal
Phenacet
Phenacetine powder
Phenacetinum
Phenacitin
Phenacon
Phenaphen
Phenaphen plus
Phenazetin
Phenazetina
Phenedina
Phenidin
Phenin
Phenodyne
Phenorial
Polypyrine
Poxy
Procomp-65
Prodigestan
Prodolor
Progesic
Protension
Pyraphen
Pyrroxate
Quadrochin
Quadronal
Rectoral
Refagan
Reformin
Repro
Respritin
Rhinazol
Rilan
Rinurel
Rinutan
Robaxisal-ph
Robaxisan-pm
Ron-drive
Rumicine
S antineuralgic
S fc
Sacadol
Sadaspir
Salgydal
Sanalgin
Sanalgine

Product Name **Phenacetin**
C.A.S. number **62-44-2**

Trade and brand names

Saridon	Sedalmerck	Seranex
Sinedal	Sinutab	Sinutab ii
Sk 65 compound	Sk 65 compound caps.	Soma
Soma compound	Soma compuesto	Sonalgin
Spacin	Spasmindon	Spasmo-compralgyl
Stellacyl	Super anahist	Supralgin
Synalgos	Synalogos-dc	T h
Tacol	Terracydin	Tetrex-apc
Tetrracydin	Thephorin a-c	Tiiomapirina
Tomapiena	Treupel	Tripin
Triplex	Uga-no	Valcophen
Vandar-65	Vasogesic	Veganine
Vicks action 500	Viden	Wigraine
Xaril	Zactirin compound-100	

For regulatory information, see page 205

Product Name **Phenazone**
C.A.S. number **60-80-0**

Trade and brand names

Aerol	Analgesine	Anodynin
Anodynine	Antigestin	Antipyrin
Apirelina	Asthma dellipsoids	Aurafair
Auralgan	Auralgicin	Auraltone
Azophen	Azophene	Bajumol
Breezeazy	Calmasmin	Cetussan
Codalgin	Crema antisolar evanescente	Doleron novum
Dolo-med-much	Dol-stop	Felsol
Fenazone	Iap	Kalopsis
Lanceotic	Lavylgan	Methozin
Mig-antos	Migranin	Natt-lunedon
Neo-felsol	Orecil	Otipyrin
Otosan-sulfan	Otothricinol	Palacaine
Parodyne	Pasta antisola	Phenazon
Phenicarbazide	Phenylon	Pomada heridas
Prednefrin	Prefrin	Prefrin liquifilm
Prefrin z	Priatan	Prophyllen
Pyrazophyl	Remolmed	Salicopil
Sanasthmyl	Sedatin	Sedatine
Sedaural	Sedonan	Shhe 21
Spalt	Spalt n	Tympagesic
Visublefarite		

For regulatory information, see page 207

Product Name **Phenazopyridine**
C.A.S. number **94-78-0**

Trade and brand names

Azo gantrisin	Azodine	Phenazo
Pyridiate	Pyridium	Pyronium

Product Name **Phenazopyridine**
C.A.S. number **94-78-0**

Trade and brand names

Sedural

For regulatory information, see page 208

Product Name **Phendimetrazine**
C.A.S. number **634-03-7**

Trade and brand names

Adipo ii	Adipost	Adphen
Amphasub	Anorex	Anoxine-t
Antapentan	Arcotrol	Bacarate
Bontril	Di-ap-trol	Dietrol
Dital	Dyrexan-od	Elphemet
Forte	Fringanor	Hourbese
Hyrex	Hyrex-105	Limit
Melfiat	Minus	Neo-nilorex
Obe-del	Obepar	Obesan
Obesan-x	Obex la	Obex-la
Obezine	Panrexin-m	Phenazine
Plegine	Plegline	Prelu-2
Pt-1-5	Reducto	Reton
S 7	Sedafamen	Sly-ll
Slyn-ll	Sprx 105	Statobex
Statobex-d	Stodex	Symetra
Trimcaps	Trimstat	Trimtabs
Wehless	Weighttrol	X-trozine

For regulatory information, see page 208

Product Name **Phenformin**
C.A.S. number **114-86-3**

Trade and brand names

Adibetin	Antipond	Azucaps
Beta-pebg	Bi-uglucon ud87	Cronoformin
D bretard	Daopar	Db comb.
Db retard	Dbi	Db-retard
De be	Debej	Debeon
Debinyl	Diabis	Diaformin
Dibein	Dibein retard	Dibenide
Dibinyl	Dibiraf	Dibolin
Dibophen	Dibotin	Dibun
Diebin	Diebin retard	Diguabet
Dipar	Dobeom	Feguanide
Fenfoduron	Fenformin	Fenguanide
Fenormin	Gluciferne	Glucifrene
Glucopostin	Glucopstin	Glukopostin
Glyphen	Insoral	Kataglicina
Lentobetic	Ls 6030	Meltrol
Nci-c01741	Normoglucina	Oraleo
Pbi	Pedg	Phenformine
Phenformix	Prontoformin	Retard

Product Name **Phenformin**
C.A.S. number **114-86-3**

Trade and brand names

Retardo	Tolbrtaphen	W 32

For regulatory information, see page 209

Product Name **Phenicarbazide**
C.A.S. number **103-03-7**

Trade and brand names

Antipyretic dellepsoids d26

For regulatory information, see page 211

Product Name **Phenmetrazine**
C.A.S. number **134-49-6**

Trade and brand names

A 66	Anorex	Bromadryl
Emagrin	Filon	Gratsidin
Marsin	Neo-zine	Oxazimedrine
Phenmetrazine	Prelazine	Preludin
Probese-p	Psychamine a 66	

For regulatory information, see page 211

Product Name **Phenobarbital**
C.A.S. number **50-06-6**

Trade and brand names

3p spas	Aaciasthma	Adocor
Adonal	Agrypnal	Allergasthmin
Alnagon	Amylofene	Anaspaz
Anti-spas	Apb	Aphenylbarbit
Asmo fedrilum	Asthmatussin	Austrominal
Bakersed	Barbellen	Barbenyl
Barberine	Barbilletae	Barbiphenyl
Barbipil	Barbita	Barbivis
Barcole	Barophen	Bay-ase
Bebtoyl	Bediphen	Belergamin
Bellademal s	Belladenal	Bellasectal
Bellastal	Bellergal	Bellergal s
Belllumal	Bergofen	Blu-phen
Bock-ase	Bonexyl	Broncosmin
C 147	Calminal	Ce 10010
Ceepa	Cemealonal	Clemodril
Coffecodin	Cor-asthmolyticum	Cortasmyl
Corverum	Dafodil	Damoral
Digi-pulsnorma	Dithene-r	Dolo-eupaco
Donibin	Donna-lix	Donnaplex
Donnatal	Dormiral	Doscalun
Duneryl	Duovent	Eeskabarb span
Elibese	Elmigrin	Ensobarb
Ephedrobarbital-t	Ephestmin	Epidormb
Epilantin	Epsylone	Ergojuvan

Product Name **Phenobarbital**
C.A.S. number **50-06-6**

Trade and brand names

Eskabarb
Espafren
Extrovent
Fasconal
Fedrilum
Fedrinal
Fenalgin
Fenemal
Fenilcal
Fenosed
Fenosed bitabs
Gardenal
Gardenale
Gardepanyl
Gastrop
Gentarol
Giolate
Glyanphen
Glyuferal
Gourmase
Gratusminal
Hasp
Hyonol
Hypnaletten
Hypnolone
Hysteps
Ila-med
Irs 109a
Kenedes
Koronar
Lagaspasm
Lardet
Legatin
Lepinal
Lepinaletten
Liquital
Lircapil
Lixophen
Lubergal
Lumcalcio
Luminal
Lunadon
Lysadestal
Mazur-a
Md 1020
Mediphen
Meprobit
Mepropon
Metrojen
Mialgone
Migrane-dolviran
Modirit
Myocardon
Neo-nervostat
Neurobarb
Nilspasm
Noptil
Nova-pheno
Novodon
Novospasmin
Nunol
Oasil
Oxabar
Oxoids
Pavadel
Peba
Pencardin
Pen-nitate
Pentran
Perphyllon
Phen bar
Phenaemal
Phen-bel
Phenemal
Phenobar
Phenobarbyl
Phenogen
Pheno-gesic
Phenonyl
Phental
Phentral cratecil
Phob
Piraminal
Plivalgin
Preminal
Prenoxan
Pribetal
Purphen
Quad-sed
Rau-fridetten
Resirol
Respisane
S 611-3
Salviton
Sanepil
Sapos
Scotatal
Secophen-c
Sedacoral
Seda-intestain
Seda-ko
Sedalgin
Sedapar
Seda-tablinen
Sedo corodil
Sedonal
Sedophen
Sedopsic
Sedragesic
Sevenal
Solofoton
Somonal
Soniphen
Spascol
Spasdel
Spasmalones
Spasmo-compragyl
Spasmogentarol
Spasmotal
Spasmo-van
Spasmoveragin
Spastyl
Spondyneuron
Stental extentabs
Stollerine
Supamidal
Susano
Syntospon
Tedralan
Teofedrin
Teolaxin
Thefedral
Theodrine
Theotabs
Tridezibarbitur
Triphenatol
Tropax
Valpin
Vanital
Vantal
Versomnal
Zirkonorm

Product Name **Phenobarbital**
C.A.S. number **50-06-6**

Trade and brand names

For regulatory information, see page 211

Product Name **Phenol**
C.A.S. number **108-95-2**

Trade and brand names

3p maid	Agre-gola	Anbesol
Apralan	Benamine	Benzenol
Carbolic acid	Cepastat	Chloraseptic
Chloraseptic dm	Derma cas	Ego psoryl
Egomycol	Epivetol	Fenicado
Hydroxybenzene	Izal	Izal germicide
Merastat	Monophenol	Pao sole
Paoscle	Pernomol	Phenylic acid
Poscle	Pregine	Protaphane hm insulin
Sarna	Sedaural	Ura
Vaopin		

For regulatory information, see page 212

Product Name **Phenolphthalein**
C.A.S. number **77-09-8**

Trade and brand names

Agaffin	Agarol	Agoral
Alophen	Alophen pills	Anodyne dellipsoids 4
Ap-la-day	Bold laxine	Bom-bon
Bon-bon	Canisan	Certolax
Chocolax	D & m tablets	Darmol
Dormol	Doxidan	Espotabs
Euchessina	Euchessinia	Evac-q-tabs
Evac-qwik tablets	Evactil	Evac-u-gen
Ex-lax	Feen-a-mint	Formosa camphor
Fractines vichy	Fractine-vichy	Fructines-vichy
Gum camphor	Japan camphor	Kalimalterin
Kest	Kondremul with phenolphtalein	Koprol
Laurel camphor	Laxante yer	Laxatabs
Laxatone	Laxen busto	Laxin
Laxogen	Lilo	Minilax
Modane	Modane plus	Mucinum
Musilaks	Neoprunex	Neopurghes
Novopuren	Paradeines	Peplax
Petrolaglar emulsion	Petro-mul-phen	Phenolax
Phillips laxcaps	Prifunal	Prulet
Prunetta	Pugrante el aleman	Purex
Purga	Purganol	Purganos-daguin
Purgant aleman	Purgante	Purgante orravan
Purgen	Purgenum	Purgestol
Purgoids	Purgyl	Purjen sahap
Sarolax	Spulmako-lax	Thalinol
Thalinol mrt	Trilax	Unisvelt

Product Name **Phenolphthalein**
C.A.S. number **77-09-8**

Trade and brand names

Veracolate

For regulatory information, see page 213

Product Name **Phenoxybenzamine**
C.A.S. number **59-96-1**

Trade and brand names

Dibenyline	Dibenzyline	Dibenzyran

For regulatory information, see page 214

Product Name **Phentermine**
C.A.S. number **122-09-8**

Trade and brand names

Adipex	Adipex nouveau	Adipex-p
Aneroxina	Bellapront	Dapex
Duromin	Ex-adipos	Fastin
Inonamin	Ionakraft	Ionamin
Ionamine	Levum	Linyl
Lipopill	Minobese	Minobese forte
Mirapront	Netto-longcaps	Obestin 30
Oby-trim	Omnibex	Ona-mast
Panbesy	Panshape	Parmine
Phentermyl	Pronidin	Raucherstop 5 ht
Reducyl	Regulin	Span r/d
Teramine		

For regulatory information, see page 214

Product Name **Phenylbutazone**
C.A.S. number **50-33-9**

Trade and brand names

Algesin	Algirreudin	Algoverine
Alindor	Alka butazolidin	Alkabutazona
Alkabutazone	Alka-phenylbutazone	Alka-sterazolidin
Ambene	Anarthral	Antadol
Anuspiramin	Apophenylbutazone	Apo-phenylbutazone
Arteopan	Arthirikin	Artibrin
Artrisin	Artrizin	Artrodesmol extra
Artropan	Azolid	Benzone
Betazed	Bizolin 20	Bizolin 700
Butacal	Butacol	Butacompren
Butacote	Butadilat	Butadin
Butadion	Butadiona	Butadyne
Butafenil	Butagesic	Butagros
Butakvertin	Butalan	Butalgin
Butalgina	Butaluy	Butaparin
Butaphen	Buta-phen	Butapirazol
Butarex	Butartiril	Butatril
Butazina	Butazolidin	Butazolidin alka

Product Name **Phenylbutazone**
C.A.S. number **50-33-9**

Trade and brand names

Butazolidina
Butazone
Butial
Butidiona
Butinol
Butiwas
Buto beta
Butone
Butoroid
Butoroid cream
Butoz
Butrex
Buvetzone
Buzon
Carudol
Celestalgon
Celestazone
Chembutazone
Colfezone
Corbuvit
Dartranol
Debutazon
Delta-butazolidin
Delta-demoplas
Delta-myogit
Delta-tomanol
Deltawaukobuzon
Demoplas
Dephimixn
Dexa tomanol
Dexa-attritin
Dexa-escopyrin
Dexamed
Dexatrzona
Dibuzon
Digibutina
Diossidone
Direstop
Ditrone
Doctofril
Dolosin dexa
Dolpirina
Ecobutazone
Ectobutazone
Elmedal
Equi bute
Equipalazone
Eributazone
Escopyrin
Ethibute
Exraheudon
Exrheudon
F 650
Fenibutasan
Fenibutina
Fenibutol
Fenotone
Flebosil
Flexazone
Glycyl
Hepabuzon
Ia-but
Inflazone
Intalbut
Intrabutazone
Intrabuzone
Intrazone
Kadol
Malgesic
Mammyl
Megazone
Mephabutazon
Mepha-butazone
Mepropyrin
Merizone
Mi 540
Nadozone
Naupax
Neo-zoline
Neuro-demoplas
Neuro-elmedal
Neuzoline m
Novobutazone
Novophenyl
Oluprin
Oppazoen
Osadrinim
Panazone
Parazolidin
Parzolidon
Pasirheuman
Pbz
Penetradol
Phebuzin
Phenbuff
Phenbutazol
Phenbutazone
Phenylarthrite
Phenylbetazone
Phenylon plus
Phenylone
Phenyzone
Phlebolan
Pirabutil
Pirarreumol-b
Pirarreumol-p
Praecirheumin
Prebutex
Precirhemin
Prednirheumin
Proxyfezone
Proydynam
Pyrbutal
Ranocor
Rectofasa
Reopin
Reumasyl
Reumazin
Reumilene
Reumuzol
Reupolar
Rheopyrin
Rheosolon
Rheumanoln
Rheumaphen
Rheumycalm
Rhumalgan
Robizone-v
Salzone
Schemergen
Servizolidin
Shigrodin
Sigma-elmedal
Sintobutina
Spondyril
Stabilat
Tetnor
Tevocodyn
Therazone
Tibutazone
Ticinil
Ticinil calcio
Ticinil calico
Todalgil
Trabar
Trabit
Uzone

Product Name **Phenylbutazone**
C.A.S. number **50-33-9**

Trade and brand names

Waukobuzon	Wescozone	Wofapyrin
Zolapelin	Zolidinium	

For regulatory information, see page 215

Product Name **Phenylephrine**
C.A.S. number **59-42-7**

Trade and brand names

Fenox	Forte	Isopto frin
Minims	Mydfrin	Neo-synephrine
Nostril	Prefrin	Visadron

For regulatory information, see page 218

Product Name **Phenylpropanolamine**
C.A.S. number **14838-15-4**

Trade and brand names

A.g.multix	Acutrim	Adistop-f
Amertuss	Amplisiex	Am-tuss liq
Anorexin	Antiadipositum	Apoephedrine
Aridose	Arm	Bifed-20
Biphetane	Biphetap	Blu-hist
Brocon cr	Bromanate	Bromepaph
Brometapp	Bromophen	Bronco-quintoxil
Cenadex	Chlor-rest	Cinturex
Cletanol	Codimal	Cofpac
Cold cap	Coldecon	Col-decon
Conex-grippe	Contop	Control
Coricidin f	Corsym	Coryztime
Cremacoat	Dalca	Day nurse
Decidex	Decomine	Demazine
Deprecstop	Dexatrim	Dimetane
Dimotane	D-sinus	Efed ii
Eficol	Endal	Endecon
Endex	E-son	Espornade spansule
E-tapp 3	Exyphen	Factus
Fornagest	Fugoa n	Gardax
Ginsopan	Headway	Histabid
Histade	Histatapp	Hsp 540
Ilvin	Ipercron	Kol-tac
Kontexin	Koryza	Leder
Lipo-sinahist	Lunerin	Mardram
Minus-x	Monatuss	Monydrin
Mucolyt-expecto	Mucorama	Nd-hist
Nectatussin	Neosoldana	Nexaam
Nobese	Norephedrine	Nornatane
Obestat	Ornacol	Ornatos
Ornex	Pabron nose	Panacorn
Panadyl	Parhist	Partapp
Partuss	Permatrim	Phenapap

Product Name **Phenylpropanolamine**
C.A.S. number **14838-15-4**

Trade and brand names

Pholcolix	Pholcolix spansule	Pneumidex
Polcimut	Probocon	Profenade
Propadrin	Propadrine	Propagest
Reduzin	Rhindecon	Rhinergal
Rhinervert	Rhinicept	Rhinidrin
Rhinocap	Rinexin	Rinomar
Rinotussal	Rinurel	Rinurel lictus
Rinurel tablets	Rinutan	Rotabromophen
Rupton	Ru-tuss	Rynatapp
Rynex	Ryza-gesic	Sacietyl
Scotuss	Secron	Sinac
Sinacin	Sinubid	Sinudan
Sinu-lets	Sinus	Sinutab cough l
Spandecon	Srda	Sto-caps
Sulfa-probocon	Symptrol	Syrtussar
Taviset	Tepanil	Tinaroc
Totolin	Tricon	Tri-congestic
Triogesic elixir	Triominic	Triotussic
Tritane	Turbispan	Tussilene-dm
V cold	Veltane	Veltap
Vernate	Vistaminic	Voxin-pg
W 58	W 66	X 112 antiadipo
Zerinol		

For regulatory information, see page 218

Product Name **Phthalylsulfathiazole**
C.A.S. number **85-73-4**

Trade and brand names

Afi-ftalyl	Canidis-anti-diarr	Carbidiar
Carbotalin	Colicitina	Coliclase
Crematalil	Cremothalidine	Diacolin
Direver	Disenterol	Ef-micin
Enteramida	Enterocalme	Entero-hermes
Entero-red	Enterosteril	Entero-sulfina
Entero-toxan	Entexidina	Esteraplidin mag
Eugeniteed	Fitazil	Ftalil-esteve
Ftalil-septol	Ftalil-tiazol	Ftalysept
Ilentazol	Inrestibla strepto	Intestiazol
Iodentero-neomicina	Logical	Massotalil
Neo-sulfazon	Novosulfina	Phtalazol
Phtazol	Septiftalil	Sulfacetil
Sulfathalidine	Sulftalyl	Syptan
Taleudron	Talidine	Talisulfazol
Taloudron	Tamil	Thalazole
Thalinil	Thalistanin	Thalistatyl
Thiazole	Ultratiazol	Vetoryl

For regulatory information, see page 220

Product Name **Pipamazine**
C.A.S. number **84-04-8**

Trade and brand names

Mornidine	Nausidol	Normetine

For regulatory information, see page 221

Product Name **Pipenzolate**
C.A.S. number **13473-38-6**

Trade and brand names

Dropenzil	Pedroacal	Pipenzolate mb san
Piper	Piptal	Piptal pediatrico
Piptal pediatrique	Piptalin	

For regulatory information, see page 221

Product Name **Piperazine**
C.A.S. number **110-85-0**

Trade and brand names

Adelmintex	Adipalis	Adipalit
Adiprazine	Adiver	Ancaris thenium
Ancazine	Antelmina	Antepar
Antepar (b-w)	Anterobius	Anthalazine
Anthelmina	Anticucs	Antiren
Antivermine	Antoban	Arduvermin
Arpezine	Ascalix	Ascarinex
Ascarivet	Asca-trol no.3	Asepar
Askaripar	Averamexan	Bel-zine
Bioxurin	B-piperazine	Brirel
Bryrel	Candizine	Carudol
Ciperazin	Citrazine	Coopane
Dak	Demovermil	Diatesurico
Dicevermin	Dietelmin	Digesan
Dilaurazine	Dispermin	Diurazina
Divermex	Dowzene	Dyrex
Ecosan	Endorid	Entacyl
Entazin	Equizole-a	Eraverm
Escovermin	Esteropipate	Etaphylline (acetyllinate)
Exelmin	Exopin	Gentiazina
Glycopiparsol	Heksapar	Helmacid
Helmezin	Helmicide	Helmifren
Helmipar	Helmirazine (adipate)	Helmirazine (citrate)
Helmitin	Helmizin	Herb royal round worm treatment
Hexanthelin	Ismiverm	Janes liquid permifu
Jarabe neox	Jetsan supp. (adipate)	Justalmin
Kennel-maid	Kihomato	Kontipar
Lamboxil	Lom	Lombricida tropico
Lombrifher	Lombrikal	Lombrimade
Lumbrical	Mapiprin	Maskito
Multifuge	Multifuj	Mydriaticum
Nea-vermiol	Nemadital	Nemafugan
Nemasin	Nematocton	Nematorazine
Neo-ifusa	Neox	Nometan

Product Name **Piperazine**
C.A.S. number **110-85-0**

Trade and brand names

Noxiurotan	Ogen	Okuside
Optiverm	Oxiril syrup (hydrate)	Oxiuran (hydrate)
Oxiurasin	Oxiustip	Oxiustip elix
Oxivermin	Oxizin	Oxucid
Oxurasin	Oxuril	Oxypaat
Oxypip	Oxyzin	P.c. (citrate)
Padrax	Paravermin	Parazine
Pariamate	Parid	Par-tega
Perin	Piaverm	Piavermit
Pincet	Pincide	Pinozan
Pinrou	Pinsirup	Pin-tega
Pipadox	Pipan	Pip-a-ray
Pipenin	Piperacid	Piperamicin
Piperascat	Piperaskat	Piperasol
Piperate	Piperaverm	Piperazate
Piperazinal	Piperazine (adipate)	Pipercrean
Piperex	Piperiod	Piperital od
Piperitol	Piper-jodina	Piperol fort
Piperone	Piperoverm	Pipertox
Piperver	Piperzinal	Pipeverm
Pipezol	Pipizan	Pipizan citrate
Pipracid	Piprazid	Piprazyl
Pipricide	Piptelate	Piverma
Polo-verm	Polyquil	Pripsen
Provtovermil	Pulvex	Razinol
Rhomex	Rondelim	Rondoxyl
Safersan	Santoban	Siropar
Supraverm	Taenifigin	Tasnon
Ta-verm	Teniver	Thelmin
Thenatol	Tivazine	Toxocan
Uricida	Uridina	Uroclear (hexamine)
Urodan (phosphate)	Urosolvina	Uvilon syrup (hydrate)
Vanpar (hydrate)	Veripar	Vermago
Vermazine	Vermenter	Vermicompren
Vermidol	Vermifug	Vermilass
Vermipan	Vermiphsarmette	Vermiquimpe
Vermiquimyc	Vermisit	Vermisol
Vermitox	Vermofrik	Verocid
Veroxil	Wairmex	Worm-away
Wurmex	Wurmirazin	Wurmsirup siegfried

For regulatory information, see page 221

Product Name **Pipradrol**
C.A.S. number **467-80-7**

Trade and brand names

Alertonic	Detaril	Gerodryl
Leptidrol	Meratonic	Meratran
Metadin	Peratran	Piridrol

Product Name **Pipradrol**
C.A.S. number **467-80-7**

Trade and brand names

Stimolag fortis

For regulatory information, see page 222

Product Name **Pituitary-chorionic gonadotropin (injectable)**
C.A.S. number **UN-KG-0058**

Trade and brand names

A.p.l.	Antuitrin	Choragon
Choriantin	Choritropin	Chorulon
Dap-test	Ekluton	Endocorion
Entromone	Ferti-cept	Follutein
Fractolon	Gonabion	Gonadex
Gonadoplex	Gonafollin	Gonagestrol
Gonault	Gravimun	Grom hgh
Hcg	Hcg standard tablets	Lh 5000
Luteovet	Neogonadil	Nymfalon
Praelutin forate	Pregnesin	Profasi hp
Puberogen	Riogon	Sensi-t
Suigonan		

For regulatory information, see page 223

Product Name **Podophyllum resin**
C.A.S. number **UN-KG-0059**

Trade and brand names

Biliboldo	Bon korets	Condilomin
Condyline	Dermacytostat	Podofilm
Salicylin-p	Vericap	Wartec
Warticon	Wartkil	Wart-off

For regulatory information, see page 224

Product Name **Polyoxyethylated castor oil**
C.A.S. number **UN-87-0006**

Trade and brand names

Cremophor rh40	Cremophor rh60

For regulatory information, see page 225

Product Name **Polyvidone**
C.A.S. number **9003-39-8**

Trade and brand names

Acu-dyne	Adapettes	Adsorbobase
Adsovbotear	Agent at 717	Albigen a
Aldacol g	Amiorel eritro	Amyderm s
Anbesol	Andrestrac 2-10	Anexa
At 717	B 7509	Betadine
Betaisod	Bolinan	Bridine
Clinidine	Crospovidone	Disphex
Efo-dine	Final step	Frepp
Frepp/sepp	Ganex p 804	Ga-pvp-101

Product Name **Polyvidone**
C.A.S. number **9003-39-8**

Trade and brand names

Gyno-bidex	Hemodesis	Hemodez
Iodopiron	Isodine	Isoline
Isoplasma	Jodoplex	K 115
K 15	K 25	K 30
K 60	K 90	Kollidon
Kollidon 12pf	Kollidon 17	Kollidon 25
Kollidon 30	Kollidon 90	Kollidon ce 50/50
Kollidon k 25	Kollidon k 30	Luviskol
Luviskol k 17	Luviskol k 25	Luviskol k 30
Luviskol k 90	Luvisteol	Medicort
Molycu	Mundidon	Neojodin
Oftan flurekain	Peragal st	Periston
Periston-n	Periston-n-toxobin	Pevidine
Peviston	Plasdone	Plasmadone
Plasmoid	Plasmosan	Plassint
Podiodine	Polyclar at	Polyclar h
Polyclar l	Poly-karaya	Polyplasdone xl
Polyvidone-escupient	Polyvidonum	Polyvinyl pyrrolidone
Povadyne	Povidone k 29-32	Protagent
Proviodine	Pvp 40	Pvp 50
Pvp0	Pvp-k 15	Pvp-k 25
Pvp-k 3	Pvp-k 30	Pvp-k 60
Pvp-k 90	Pvp-macrose	Pvp-macrox
Pvpp	Rocmuth	Sd 13
Sepp	Soft-care	Subtosan
Tears plus	Traumasept	Ultradine
Venostasin retard	Vetedine	Vini
Vinisil	Yodiplexin	

For regulatory information, see page 225

Product Name **Potassium canrenoate**
C.A.S. number **2181-04-6**

Trade and brand names

Aldactone	Aldactone-diurapid	Aldadiene potassium
Kadiur	Kanrenol	Lasiren
Luvion	Osiren	Osirenol
Osyrol	Osyrol-lasix	Phanurane
Sincomen	Sincomen pro injectione	Soldactone
Soludactone	Speroctan-m	Spiroctan
Venactone		

For regulatory information, see page 226

Product Name **Potassium chloride**
C.A.S. number **7447-40-7**

Trade and brand names

Apo-k	Celeka	Chlorvescent
Diffu-k	Durules-k	Kadalex
Kalinorm	Kalipor	Kalitabs

Product Name **Potassium chloride**
C.A.S. number **7447-40-7**

Trade and brand names

Kalium durules	Kaon-cl	Kato
Kay-cee-l	K-contin	K-dur
K-lease	K-long	K-lor
Klor-con	Klorvess	Klotrix
K-lyte/cl	K-norm	K-tab
Lento-kalium	Leo k	Miopotasio
Nu-k	Plenish-k	Potasion
Rekawan	Roychlor	Rum-k
Slow-k	Span-k	Swiss-kal sr
Ten-k	Ultra-k-chlor	

For regulatory information, see page 226

Product Name **Potassium nitrate**
C.A.S. number **7757-79-1**

Trade and brand names

Cholal modifico	Cholal simple	Collo-bo
Dewitt's pills for backache and joint pain	Viridite	Viridite k

For regulatory information, see page 227

Product Name **Practolol**
C.A.S. number **6673-35-4**

Trade and brand names

A 25	Cardiol	Cordialina
Dalzic	Eraldin	Eraldina
Praktol	Pralon	Teranol

For regulatory information, see page 227

Product Name **Prasterone**
C.A.S. number **53-43-0**

Trade and brand names

17-chetovis	17-hormoforin	Astenile
Cetavister	Climatost	Dastonil
Deandros	Dha-s (prasterone)	Diandron
Diandrone	Gynodian	Longevital 5000
Maxepa	Mentalormon	Mylis
Neurocotex	Psicosterone	Ro 66827
Sh 833	Ultrapla	

For regulatory information, see page 228

Product Name **Progabide**
C.A.S. number **62666-20-0**

Trade and brand names

Gabaphore	Gabren	Gabrene
Halogabide	Sl 76 002	

For regulatory information, see page 229

Product Name **Propafenone**
C.A.S. number **54063-53-5**

Trade and brand names

Arythmol	Nofenan	Nofenon
Nomorytmin	Normotrytmin	Normotrytmin (r) 10 mg
Prolekofen	Retmonorm	Ryhmonorma
Rythmole	Rytmonorm	

For regulatory information, see page 230

Product Name **Propofol**
C.A.S. number **2078-54-8**

Trade and brand names

Diprivan	Disoprivan	Disprofol
Rapinovet		

For regulatory information, see page 231

Product Name **Propylhexedrine**
C.A.S. number **3595-11-7**

Trade and brand names

Benzedrex	Chp-depot	Cyclexedrine
Dristan	Eggobesin	Eventin

For regulatory information, see page 231

Product Name **Propyphenazone**
C.A.S. number **479-92-5**

Trade and brand names

539 grippe-dragees	Amipylo-n	Azur
Balpiren	Baukal	Budirol
Caffalgina	Camoplex	Cantacin
Causyth	Cerebrol	Cibalgina
Commotional	Daturmed	Degripol
Dentocaps a	Dim-antos	Dolibral
Dolibrax	Dolo-mineuron	Dysmalgin
Ejcopyrin	Epizon	Escomen
Estesina	Eufibron	Europan
Fd 8	Febral	Finigripp
Grippocaps	Heaven	Infantex
Influvit	Isopronazon	Kavapyret
Kuronde	Larodon	Lysadestat
Mamaslu	Milneuron	Myo-europan
Neuramin	Neuridal	Neuro-spondryl
Nodiras	Noric	Otobacid
Pfeil	Reomin	Retamex
Rheumanol	Rhinivict	Sanalgin-p
Saridon neu	Saridone	Sedospin
Servalgin	Sonotryl	Spalt
Spongamed	Stona	Synpyrin
Vivcet	Wauco-sin	Wecontrin

For regulatory information, see page 232

Product Name **Pyritinol**
C.A.S. number **1098-97-1**

Trade and brand names

Biocefalin	Biontabol	Bonifen
Bonifwn	Bonol	Cefalogen
Cerebrotrofina	Cervitalin	Danaden
Divalvon-d	Enbol	Encefabol
Encefort	Encephabol	Encerbrovit
Encerebron	Enerbol	Epocan
Fulneurina	Geribolina	Gerontabol comp.
Juniormen	Leonar	Life
Logos	Maind	Musa
Neuroxin	Piriditol	Pirirriomin
Piritinol	Piritiomin	Plenumil
Sawaxin	Scintidin	Tibased
Tomevit	Tonobrein	Tonomentis

For regulatory information, see page 234

Product Name **Retinol**
C.A.S. number **68-26-8**

Trade and brand names

Avibon

For regulatory information, see page 236

Product Name **Santonin**
C.A.S. number **481-06-1**

Trade and brand names

Semenen

For regulatory information, see page 237

Product Name **Scopolamine**
C.A.S. number **51-34-3**

Trade and brand names

Diban	Donnagel	Donnagel-pg
Donnatal	Phenacon	Ru-tuss
Scopoderm tts	Spasmofen	Susano
Transcop	Tropax	

For regulatory information, see page 238

Product Name **Secobabital**
C.A.S. number **76-73-3**

Trade and brand names

Immenoctal	Seconal	Seconal sodium
Tuinal		

For regulatory information, see page 238

Product Name **Sildenafil**
C.A.S. number **139755-83-2**

Trade and brand names

Segurex	Viagra

Product Name **Sildenafil**
C.A.S. number **139755-83-2**

Trade and brand names

For regulatory information, see page 240

Product Name **Silver acetate**
C.A.S. number **563-63-3**

Trade and brand names

Smokerette Tabmint

For regulatory information, see page 240

Product Name **Sodium dibunate**
C.A.S. number **14992-59-2**

Trade and brand names

Antussan	Balmini	Becantal
Becantex	Bechisan	Bexedyl dibunaat
Bexedyl dibunaat expectasans	Cito-quakalin	Expect-blacken-pastillen n
Makatussin	Pastillas koki	Sedobex
Super koki		

For regulatory information, see page 241

Product Name **Somatropin (pituitary-derived)**
C.A.S. number **12629-01-5**

Trade and brand names

22krl	Antuitrin growth	Antuitrin-t
Asellacrin	Cb 311	Corpormon
Crescormon	Grorm	Hgh
Human groth hormone	Human growth hormon	Humatrope
Leutrophin	Nanormin	Nanormon
Phynatol	Phyol	Phyoneon
Protopin	Protropin	Rx 099916
Somacton	Somatonorm	Somatormone
Somatotrope choay	Somatrofin	Somatropin
Sth		

For regulatory information, see page 241

Product Name **Spironolactone**
C.A.S. number **52-01-7**

Trade and brand names

Acelat	Airolactone	Aldace
Aldactazide	Aldactide	Aldactide 25
Aldactone	Aldactone-a	Aldazida
Aldonorm	Aldopur	Aldospirone
Aldozone	Alexan	Almatol
Alpamed	Altex	Altexide
Aporasnon	Aquareduct	Carditan
Crk 635	Ct-spiro	Deverol
Diatensec	Digi-aldopur	Dilakton
Dira	Duraspiron	Euteberol
Hexalacton	Hokulaton	Hokuraton

Product Name **Spironolactone**
C.A.S. number **52-01-7**

Trade and brand names

Hydrospiron	Idrolatton	Idrolattone
Lacalmin	Lacdene	Lacilactone
Laractone	Laralmin	Lasilacton
Lasitone	Loractone	Mf 218d
Nefurofan	Noidouble	Novospiroton
Novospirozine	Novosprioton	Novospriozine
Osiren	Osyrol	Penantin
Pirolacton	Pirolcaton	Plarenil
Practon	Practon 50	Raudazida
Risicordin	Rolactone	Rolactone microfine
Sagisal	Sali-spiroctan	Saluretin
Sas 1060	Sc 9420	Servilactone
Sincomen	Spiractin	Spiresis
Spiretic	Spiridazide	Spiridon
Spirix	Spiro	Spiro comp
Spiro50-d	Spiroctan	Spirodigital
Spiro-f	Spirolang	Spiron
Spironazide	Spironomocompren	Spironone
Spironothiazide	Spiropal	Spiroprop
Spirostada	Spiro-tablinen	Spirotone
Suprapuren	Supra-puren	Suracton
Synureticum	Tensin	Tensoflex
Uractone	Urosonine	Urusonin
Verospiron	Verospirone	Xenalone
Xeualon		

For regulatory information, see page 243

Product Name **Streptomycin**
C.A.S. number **57-92-1**

Trade and brand names

Antidiarrhoicum	Bio hubber	Bio hubber fuerte
Bio hubbersimple	Cidan est	Darostrep
Derbitan antibiotico	Diastat	Direver
Estrepromade	Estrepromicina	Estrepto e
Estrepto level	Estrepto ph	Estrepto wolner
Estreptomicina normon	Gamafin	Injectin
Neodistreptotab	Neodualtrepto	Novostrep
Novo-strep	Servistrep	Solustrep
Solvo-strep-s	Solvo-strept-s	Strep-diva
Strepolin	Streptan	Streptaquaine
Streptocal	Strepto-fatal	Streptomycin
Streptosol 25	Streptothenat	Stretobretin
Strycin	Sul-mycin ii	

For regulatory information, see page 244

Product Name **Sulfadicramide**
C.A.S. number **115-68-4**

Trade and brand names

Product Name **Sulfadicramide**
C.A.S. number **115-68-4**

Trade and brand names

Ingamid	Ingamid ophtal	Irgamid

For regulatory information, see page 245

Product Name **Sulfadimidine**
C.A.S. number **57-68-1**

Trade and brand names

Crermomethazine	Deladine	Dimezathine
Dimidin	Hava-span	Intradin
Neotrizine	Rigesol	Rivodin
S-dimidine	Spanbolet	Sulka-s
Sulphamezathine	Sulphfmezatine	Superseptyl
Sustain iii	Tersulpha	Trisulfaminic
Trisulfaminie		

For regulatory information, see page 246

Product Name **Sulfaguanidine**
C.A.S. number **57-67-0**

Trade and brand names

Aseptil-guanidina	Aterian	Coliseptale
Devaguanil	Diacta	Dirkan
Emerin	Ente-rivo simplex	Ganidan
Granidan	Guamide	Guanicil
Guanidan	Guanimycin	Guanowept
Guasept	Inorgan	Intestovet
Ordenol	Orgaguanidon	Resulfon
Ruocil	Sgd	S-guanidan
S-guanidine	Shigatox	Suganyl
Sulfacarbon	Sulfentidine	Sulfogua
Sulgin	Tetrawest	Trisulvet

For regulatory information, see page 246

Product Name **Sulfamerazine sodium**
C.A.S. number **127-58-2**

Trade and brand names

Bio hubber simple	Cremo-merazine	Debnal m
Mebacid	Neotrizine	Peccocode
Septosil	Spanbolet ii	Tersulpha
Trisulfaminic	Trisulpha	

For regulatory information, see page 248

Product Name **Sulfamethizole**
C.A.S. number **144-82-1**

Trade and brand names

3p methazol	Amer-azo	Ayerlucil
Azocline	Azotrex	Dorsec
Famet	Lu	Lucatyl
Lucosil	Methazol	Methisul

Product Name **Sulfamethizole**
C.A.S. number **144-82-1**

Trade and brand names

Microsul	Micturol ampicilina seda	Nicene
Orozl	Procijec	Proklar-m
Renasul	Rp 2145	Rufol
Salimol	S-methizole	Spasmo-harnosal
Starisil	Suladyne	Sulfa gram
Sulfametin	Sulfapyelon	Sulfstat
Sulfurine	Tetracid	Thidicur
Thiosulfil	Thiosulfil a	Tiosulfan
Ultrasul	Uratrac	Urobiotic
Urocydal	Urodiaton	Urolex
Urolucosil	Uroluxcosil	Uro-nebactin
Uropeutic	Urotrex	Uroz
Utrasul	Vk 53	

For regulatory information, see page 248

Product Name **Sulfamethoxypyridazine**
C.A.S. number **80-35-3**

Trade and brand names

Amidin	Aseptilex	Asey-sulfa
Bimalong	Biocorn	Bio-cron
Bio-pectodil	Davosin	Davosin suspension
Deltavagin	Depovernil	Desulfon
Durasul	Durasul jarabe	Durox
Elix	Ensulfa	Eusulfa
Exazol	Exazole	Farinffnicol
Fercasulf	Hesse-sulfon	Ketiak
Kiron	Kynex	Kynex acetyl
Lederkyn	Lentac	Lentosulfa
Linder	Logisul jarabe	Longamid
Longisul	Metamit	Metazina
Metuzina	Microcid	Midicel
Midikel	Minikel	Myasul
Mylosul	Novosulfin	Opinsul
Paramid supra	Petrisul	Pirasulfon
Quinoseptyl	Ralenta	Retasulfin
Rotardon	S.d.m.	Septotryl
Smop	Spofadazine	Sulamin
Sulfa spirig	Sulfabon	Sulfadazina
Sulfadepot	Sulfadin	Sulfadurazin
Sulfaintensa	Sulfakeyn	Sulfalex
Sulfametopyridazin	Sulfamizina	Sulfamyd
Sulfapyrazin	Sulfatar	Sulfdurazin
Sulfocidan	Sulfonamid	Sulforetent
Sulfo-rit	Sultirene	Unisulfa
Unisulfa dulcis	Uroplex	Valetan
Velaten	Vinces	Volocid
Vtg 44		

For regulatory information, see page 248

Product Name **Sulfamethoxypyridazine**
C.A.S. number **80-35-3**

Trade and brand names

Product Name **Sulfanilamide**
C.A.S. number **63-74-1**

Trade and brand names

Acetonal vaginal	Amidrin	Astreptine
Avc	Avc cream suppositoty	Avc/dienestrol
Avril	Azol	Azol polvo
Azol pomada	Buco pental	Buco regis
Chemiovis	Daromid	Defonamid
Dorsec	Exoseptoplix	Expseptoplix
Faderma	Fricton	Gagaril sulfamida
Gynaedron	Instilin	Jacosulfon
Medeyol	Mentol sedans sulfamidad	Nasopomada
Odamida	Oestro-gyneadron	Otocaina
Otonasal	Otorrilan	Ovuthricinol
Oxidermiol	Paraseptol	Pental
Pental forte	Pentalmicina	Polvo sulfamida leti
Polvo sulfamida orrvan	Polvos wilfe	Pomada heridas
Pomada wilfe	Prontablin	Pulvi bacteramide
Pyodental	Pyodron	Quimpeamida
Rhinamide	Rino glucol sulf	Septoplix
Streptamin	Sulfacromo	Sulfonamid spuman
Sulfonamide-spuman-style	Sulfonanilamid	Sulfosellan-salbe
Ung. vemleigh	Vagitrol	

For regulatory information, see page 249

Product Name **Sulfathiazole**
C.A.S. number **72-14-0**

Trade and brand names

Argazol	Azoseptale	Bucosol
Chemiovis	Chemosept	Cibazol
Coryza	Crionil	Csp 500
Csp-250	Edifeno	Eleudron
Femakzem	Flumamine	Formotablin antidiarreico
Gyne-sulf	Gyn-sulf	Ingalipt
Neosutrin	Polvos wilfe	Pomada wilfe
Prothiazol	Septex cream no. 2	Septozol
Streptacillin	Streptotriad	Sulfamul
Sulfa-orzon	Sulfavitina	Sulfazol
Sulfex	Sulfhatose	Sulfintestin
Sulfopyrol	Sulfour	Sulfzol
Sulnac	Sulphatriad	Sultrin
Sulzol	Tampovagan pss	Thiadyl
Thiazamid	Thiazamide	Thiuramide
Tiadyl	Trimeto	Trisulpha
Trysul	Tylasul	Ufa 902-duo
Vetoprim mi	Wintrazol	

For regulatory information, see page 250

Product Name **Sulfathiazole**
C.A.S. number **72-14-0**

Trade and brand names

Product Name **Sulfisomidine**
C.A.S. number **515-64-0**

Trade and brand names

Aristamid	Elkosin	Gynedron
Isosulf	Oestro-gynedron	Poly-gynedron
Sulfamethine	Tricho-gynedron	

For regulatory information, see page 250

Product Name **Suloctidil**
C.A.S. number **54767-75-8**

Trade and brand names

Bemperil	Cerebro	Circleton
Cp 556s	Dulasi	Duloctil
Euvasal	Farectil	Fluversin
Fluvisco	Hemoantin	Iangene
Ibisul	Loctidon	Locton
Metactiv	Octamet	Polivasal
Sudil	Sulc	Sulocton
Sulodene	Suloktil	Sutidil
Tamid	Vascudil	

For regulatory information, see page 251

Product Name **Sulprostone**
C.A.S. number **60325-46-4**

Trade and brand names

CP-34089	Nalador	

For regulatory information, see page 252

Product Name **Sultopride**
C.A.S. number **53583-79-2**

Trade and brand names

Banotil	Barnetil	Barnotil
Topral		

For regulatory information, see page 252

Product Name **Suprofen**
C.A.S. number **40828-46-4**

Trade and brand names

Algiamida	Algiasdi	Bordol
Erdol	Maldocil	Masterfen
Sufenid	Supranol	Suprol
Surfex		

For regulatory information, see page 254

Product Name **Suxibuzone**
C.A.S. number **27470-51-5**

Trade and brand names

Calibene	Danalon om	Danilon
Flamilon	Flofos	Flogos
Solurol		

For regulatory information, see page 255

Product Name **Tartrazine**
C.A.S. number **1934-21-0**

Trade and brand names

1 yellow	1409 yellow	A.f. yellow no.4
Acid leather yellow t	Acid yellow 23	Acid yellow t
Acilan yellow	Acilan yellow gg	Airedale yellow t
Aizen tartrazine	Amacid yellow t	Amacid yellow t-ex
Atul tatrazine	Ayellow t	B 3014
Biovital	C.i. 19140	C.i. acid yellow 23
C.i. food yellow 4	Calcocid yellow mcg	Calcocid yellow xx
Cancert tartrazine	Certecol tartrazol yellow s	Cilefa yellow t
Curon	D and c yellow no. 5	Dolkwal tartrazine
Dye yellow lake	E 102	E 102 (dye)
Edicol supra tartrazine n	Egg yellow a	Erio tartrazine
Erio yellow t supra	Eurocert tartrazine	Fast yellow 5g
Fd and c yellow no. 5	Fenazo yellow t 4	Food dye yellow 4
Food yellow 4	Food yellow no. 4	Galinid
Hd tartrazine	Hd tartrazine supra	Hexacert yellow no 5
Hexacol tartrazine	Hispacid fast yellow t	Hydrazine yellow
Hydroxine yellow l	Japan yellow no. 4	Jaun tartrique
Kako tartrazine	Kayaku food colour yellow no. 4	Kayaku tartrazine
Kca foodcol tartrazine pf	Kca tartrazine pf	Kiton yellow t
L yellow z 1020	Lake yellow	Lemon yellow a
Lemon yellow a geigy	Maple tartrazol yellow	Mitsui tartrazine
Naphtocard yelow o	Neklacid yellow t	Oxanal yellow t
San ei tartrazine	Sugai tartrazine	Tartar yellow fs
Tartar yellow n	Tartar yellow pf	Tartar yellow s
Tartran yellow	Tartraphenine	Tartrayellow
Tartrazin	Tartrazine a export	Tartrazine b
Tartrazine b.p.c.	Tartrazine c	Tartrazine extra pure a
Tartrazine fq	Tartrazine g	Tartrazine lake
Tartrazine lake yellow n	Tartrazine m	Tartrazine mcgl
Tartrazine n	Tartrazine ns	Tartrazine o
Tartrazine o specially pure	Tartrazine t	Tartrazine xx
Tartrazine xx especially pure	Tartrazine xxx	Tartrazine yellow
Tartrazol bpc	Tartrazol yellow	Tartrine yellow o
Unitertracid yellow te	Usacert yellow no 5	Vondacid tartrazine
Wood yellow	Xylene fast yellow gt	Yellow lake 69

For regulatory information, see page 256

Product Name **Temafloxacin**
C.A.S. number **108319-06-8**

Trade and brand names

Product Name **Temafloxacin**
C.A.S. number **108319-06-8**

Trade and brand names

8Omniflox	8Teflox	8Temac

For regulatory information, see page 257

Product Name **Terconazole**
C.A.S. number **67915-31-5**

Trade and brand names

Fungistat	Gyno-terazol	Terazol
Terazol 3	Tercospor	

For regulatory information, see page 258

Product Name **Terfenadine**
C.A.S. number **50679-08-8**

Trade and brand names

Antifen	Fenadin

For regulatory information, see page 258

Product Name **Terodiline**
C.A.S. number **15793-40-5**

Trade and brand names

Bicor	Mictrol	Micturin
Mitrol	Miucurin	Terolin

For regulatory information, see page 260

Product Name **Testosterone propionate (injectable)**
C.A.S. number **57-85-2**

Trade and brand names

Agovirin	Andro heart injecta	Androfort
Androlan in oils	Androtest	Androteston
Anertan	Aquaviron	Bio-testiculina
Cortrifosal	Durateston v	Enarmon
Enarmon-oil	Encilcort	Galanrent
Gondrone	Gyno-terazol	Hermo m
Homandren	Homosterone	Hormoteston
Jeifer-old	Malogen	Malogen in oil
Malotrone	Masenate	Mertestate
Micro-sterandryl	Napionate	Nasdol
Neo-hombreol	Okasa-mascul	Orchiol
Orchisterone-p	Orchistin	Oreton
Oreton-f	Pantesin	Perandern
Percutacrine androgenique	Pertesis	Primotest
Primotestone	Propiokan	Recthormone
Recthormone testosterone	Solvotest	Sterotest
Sutanone	Synandrol	Syneron
Synovex-h	Telipex	Terazol
Teslen	Tesrina	Testaform
Testanderogen	Testenat	Testex
Testigrmon	Testilen	Testirene

Product Name **Testosterone propionate (injectable)**
C.A.S. number **57-85-2**

Trade and brand names

Testobase	Testodet	Testodrin
Testogen	Testoici	Testoidral
Testolets	Testonate	Testonique
Testopin	Testopinate	Testopropon
Testoral	Testo-retard	Testormol
Testosid	Testoviron	Testoviron (ampule)
Testoviron-10/-25/-50	Testoviron-depot-50/-100	Testovis
Testoxyl	Testrex	Testron
Tostrina	Triomone	Uniteston
Vantostol-p	Viromon	Virormone
Virosterone		

For regulatory information, see page 260

Product Name **Tetracycline (paediatric)**
C.A.S. number **60-54-8**

Trade and brand names

Achrocidin	Achromycin	Achromycin v
Achromycin y	Apo-tetra	Cyclopar
Decycline	Double-t	Gt-250
Hosta-500	Medicycline	Muracine
Mysteclin-f	Nasopomada	Neo-tetrine
Nor-tet	Novotetra	Panmycin
Retet	Robitet	Sk-tetracycline
Steclin	Sumycin	Tepcycline
Teropicycline	Tetrabotic	Tetra-c
Tetracap	Tetracaps	Tetracyn
Tetralan	Tetram	Tetrex
Tetrpsol	Wintracin	

For regulatory information, see page 261

Product Name **Thalidomide**
C.A.S. number **50-35-1**

Trade and brand names

Algosediv	Asidon	Bonbrain
Contergan	Distaval	E-217
Funed	Glupan	Glutanon
Hippuzon	Imidan	Isomin
Kevadon	Kevadone	Nerufatin
Neurosedyn	Pangul	Pantosedive
Pro-ban	Quetimid	Sanodormin
Sedalis	Sedoval	Shinaito
Shinnibrol	Sleepan	Slipro
Softenil	Softenon	Talimol
Tlargan	Yodomin	

For regulatory information, see page 262

Product Name **Thenalidine**
C.A.S. number **86-12-4**

Trade and brand names

Sanbosten	Sandosten	Sandostene

For regulatory information, see page 263

Product Name **Thiomersal**
C.A.S. number **56-64-8**

Trade and brand names

Thiobactal

For regulatory information, see page 264

Product Name **Tianeptine sodium**
C.A.S. number **30123-17-2**

Trade and brand names

Coaxil	Stablon

For regulatory information, see page 264

Product Name **Ticlopidine**
C.A.S. number **55142-85-3**

Trade and brand names

4-c-32	53-32-c	Anagregal
Aplaquette	Caudaline	Derivatives
Klodin	Opteron	Panaldine
Pcr 5332	Tcp	Ticlid
Ticlidan	Ticlodix	Ticlodone
Ticlopedine	Ticlosan	Tiklid
Tiklyd	Tilcid	

For regulatory information, see page 265

Product Name **Tienilic acid**
C.A.S. number **40180-04-9**

Trade and brand names

Anp 3624	Diflarex	Diflurex
Fr 3068	Selacryn	Selcryn
Skf-62698	Ticrex	Ticrynafen
Ticrynapen		

For regulatory information, see page 266

Product Name **Tocainide**
C.A.S. number **41708-72-9**

Trade and brand names

Apx	Citocard	Taquidil
Tonocard	Toquidil	Xylotocan

For regulatory information, see page 267

Product Name **Tramadol**
C.A.S. number **27203-92-5**

Trade and brand names

Product Name **Tramadol**
C.A.S. number **27203-92-5**

Trade and brand names

Trabar	Tramal

For regulatory information, see page 269

Product Name **Tranylcypromine**
C.A.S. number **155-09-9**

Trade and brand names

Cuait	Estelapar	Jatrosom
Oculocidon	Parnate	Parnate tylciprine
Parnetene	Parstelazin	Parstelin
Stelapar	Transamin	Transaminase
Transaminase sgo	Transaminase sgp	Transamine
Tylciprine		

For regulatory information, see page 269

Product Name **Trazodone**
C.A.S. number **19794-93-5**

Trade and brand names

Beneficat	Bimaran	Deprax
Desyrel	Devidone	Manegan
Molipaxin	Pragmarel	Pragmazone
Taxagon	Thittico	Thombran
Thromban	Tombran	Tramensan
Tritico	Trittico	

For regulatory information, see page 270

Product Name **Tretinoin**
C.A.S. number **302-79-4**

Trade and brand names

A-acido	Aberel	Aberela
Acid a vit	Acnavit	Acnavyse
Acretin	Airoderm	Airol
Aknebon	Aknefug	Aknoten
Anition	Antibio-aberel	Apsor
A-vitamisyre	Avitoin	Cordes vas
Dermairol	Dermoclar	Dermojuventas
Derugin	Effederm	Epi-aberel
Eudyna	Locacid	Pigmanorm
R0 22-6595	Reiderma	Retin a
Retin-a	Ro 1-5488	Roaccutane
Sebo-psor	Stie vaa	Stievaa
Tretin m	Vas dexa	Verra-med
Vitacid a	Vitamin a acid	

For regulatory information, see page 270

Product Name **Triacetyldiphenolisatin**
C.A.S. number **18869-73-3**

Trade and brand names

Product Name **Triacetyldiphenolisatin**
C.A.S. number **18869-73-3**

Trade and brand names

Schlakforte

For regulatory information, see page 271

Product Name **Triazolam**
C.A.S. number **28911-01-5**

Trade and brand names

Halcion Novidorm Novoderm
Novodorm Nuctane Songar
Songarn

For regulatory information, see page 271

Product Name **Trimipramine**
C.A.S. number **739-71-9**

Trade and brand names

Apo-trimip Herphonal No-tripramine
Novo-tripramine Rhotrimine Rhotromine
Sapilant Stangyl Surmantil
Surmontil Tydamine

For regulatory information, see page 274

Product Name **Troglitazone**
C.A.S. number **97322-87-7**

Trade and brand names

Rezulin Ronglitazone

For regulatory information, see page 274

Product Name **Trolamine**
C.A.S. number **102-71-6**

Trade and brand names

Sabril Sabrilex

For regulatory information, see page 275

Product Name **Trypsin**
C.A.S. number **9002-07-7**

Trade and brand names

Parenzyme Trypsillin

For regulatory information, see page 276

Product Name **Valproic acid**
C.A.S. number **99-66-1**

Trade and brand names

Valproine Vederon

For regulatory information, see page 278

Product Name **Vigabatrin**
C.A.S. number **60643-86-9**

Trade and brand names

Sabril	Sobril	Sobril tab 25 mg

For regulatory information, see page 278

Product Name **Vinbarbital**
C.A.S. number **125-42-8**

Trade and brand names

Butenemal	Delvinal	Delvinal sodium
Diminal	Suppoptanox	Vinbarbiton

For regulatory information, see page 279

Product Name **Vincamine**
C.A.S. number **1617-90-9**

Trade and brand names

Angiopac	Cerebroxine	Cetal
Equipur	Ocu-vinc	Oxygeron
Pervincamine	Vadicate	Vinca
Vinca minor	Vincacen	Vincapront
Vincavix	Vincimax	

For regulatory information, see page 279

Product Name **Warfarin**
C.A.S. number **81-81-2**

Trade and brand names

Athrombin	Coumadin	Coumadine
Marevan	Mervan	Sofarin
Waran	Warfilone	

For regulatory information, see page 280

Product Name **Xenazoic acid**
C.A.S. number **1174-11-4**

Trade and brand names

Cv 58903	Xenalmine	Xenovis

For regulatory information, see page 281

Product Name **Zimeldine**
C.A.S. number **56775-88-3**

Trade and brand names

Normid	Normud	Zelmid
Zelmidine		

For regulatory information, see page 281

Product Name **Zipeprol**
C.A.S. number **34758-83-3**

Trade and brand names

Antitaxil-z	Antituxil-z	Balutox
Broncozina	Bronx	Cerm-3024

Product Name **Zipeprol**
C.A.S. number **34758-83-3**

Trade and brand names

Citizeta	Mirsol	Ogyline
Respilene	Respirase	Respirex
Santus	Talasa	Zitoxil

For regulatory information, see page 281

Product Name **Zomepirac**
C.A.S. number **33369-31-2**

Trade and brand names

Calinador	Calmador	Dolgenal
Dolwas	Mcn 2783	Mcn 2783-21-98
Miranil	Zomax	Zomaxin
Zopirac		

For regulatory information, see page 282

Product Name **Zopiclone**
C.A.S. number **43200-80-2**

Trade and brand names

Zimovane

For regulatory information, see page 282

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Annex I

Relevant resolutions of the General Assembly And the Economic and Social Council

General Assembly resolution 37/137

Protection against products harmful to health and the environment

The General Assembly,

Aware of the damage to health and the environment that the continued production and export of products that have been banned and/or permanently withdrawn on grounds of human health and safety from domestic markets is causing in the importing countries,

Aware that some products, although they present a certain usefulness in specific cases and/or under certain conditions, have been severely restricted in their consumption and/or sale owing to their toxic effects on health and the environment,

Aware of the harm to health being caused in importing countries by the export of pharmaceutical products ultimately intended also for consumption and/or sale in the home market of the exporting country, but which have not yet been approved there,

Considering that many developing countries lack the necessary information and expertise to keep up with developments in this field,

Considering the need for countries that have been exporting the above-mentioned products to make available the necessary information and assistance to enable the importing countries to protect themselves adequately,

Cognizant of the fact that almost all of these products are at present manufactured and exported from a limited number of countries,

Taking into account that the primary responsibility for consumer protection rests with each State,

Recalling its resolution 36/166 of 16 December 1981 and the report on transnational corporations in the pharmaceutical industry of developing countries,[1] and acting in pursuance of Economic and Social Council resolution 1981/62 of 23 July 1981,

Bearing in mind in this context the work of the Food and Agriculture Organization of the United Nations, the World Health Organization, the International Labour Organisation, the United Nations Environment Programme, the General Agreement on Tariffs and Trade, the United Nations Centre on

[1] E/C.10/85.

Transnational Corporations and other relevant intergovernmental organizations,

1. Agrees that products that have been banned from domestic consumption and/or sale because they have been judged to endanger health and the environment should be sold abroad by companies, corporations or individuals only when a request for such products is received from an importing country or when the consumption of such products is officially permitted in the importing country;

2. Agrees that all countries that have severely restricted or have not approved the domestic consumption and/or sale of specific products, in particular pharmaceuticals and pesticides, should make available full information on these products with a view to safeguarding the health and environment of the importing country, including clear labelling in a language acceptable to the importing country;

3. Requests the Secretary-General to continue to ensure the provision of the necessary information and assistance by the United Nations system in order to strengthen the national capacities of developing countries to protect themselves from the consumption and/or sale of banned, withdrawn, severely restricted or, in the case of pharmaceuticals, non-approved products;

4. Requests the Secretary-General, based upon the work already being done within the Food and Agriculture Organization of the United Nations, the World Health Organization, the International Labour Organisation, the United Nations Environment Programme, the General Agreement on Tariffs and Trade, the United Nations Centre on Transnational Corporations and other relevant intergovernmental organizations, to the maximum extent possible within existing resources, to prepare and regularly update a consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or, in the case of pharmaceuticals, not approved by Governments, and to make this list available as early as possible and, in any case, not later than December 1983;

5. Agrees that the consolidated list referred to in paragraph 4 above should be easy to read and understand and should contain both generic/chemical and brand names in alphabetical order, as well as the names of all manufacturers and a short reference to the grounds and decisions taken by Governments that have led to the banning, withdrawal or severe restriction of such products;

6. Decides, on the basis of the above-agreed criteria, to keep under review the format of the consolidated list with a view to its possible improvements;

7. Requests Governments and the relevant organs, organizations and bodies of the United Nations system to provide all the information and assistance necessary for the prompt and effective fulfillment of the task entrusted to the Secretary-General.

109th plenary meeting
17 December 1982

General Assembly resolution 38/149

Protection against products harmful to health and the environment

The General Assembly,

Recalling its resolutions 36/166 of 16 December 1981 and 37/137 of 17 December 1982,

Bearing in mind the oral report presented by the Secretariat with regard to progress made in the implementation of resolution 37/137[2]

1. Takes note of the report of the Secretary-General on the exchange of information on banned hazardous chemicals and unsafe pharmaceutical products,[3] and of the work being carried out by the United Nations system of organizations;

2. Notes with satisfaction that the work carried out in consultation with organizations of the United Nations system on the consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or, in the case of pharmaceuticals, not approved by Governments, is in the process of being completed;

3. Requests the Secretary-General to make available the consolidated list, as established on the basis of information supplied up to now in accordance with the objectives of General Assembly resolution 37/137, and to bring it up-to-date on a regular basis;

4. Urges the relevant organs, organizations and bodies of the United Nations system, particularly the Food and Agriculture Organization of the United Nations, the World Health Organization, the International Labour Organisation, the United Nations Environment Programme, the General Agreement on Tariffs and Trade and the United Nations Centre on Transnational Corporations and other intergovernmental organizations, to continue to co-operate fully in providing information for the consolidated list and for its updated versions;

5. Appreciates the co-operation extended by Governments and urges all Governments, in particular those that have not yet done so, to provide the necessary information for inclusion in the consolidated list and its updated versions, as well as comments and views that they deem relevant;

6. Urges non-governmental organizations to extend co-operation to the Secretary-General regarding the preparation of the consolidated list, particularly in the identification of potential sources of information among national Governments and in obtaining governmental information on relevant regulatory actions;

7. Requests the Secretary-General, for purposes of review by the General Assembly at its thirty-ninth session, to submit a report on the implementation of Assembly resolution 37/137, including the consolidated list, taking into account the latest information and comments collected for possible improvement of the list, as envisaged in paragraph 6 of resolution 37/137;

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[2] Official Records of the General Assembly, Thirty-eighth Session, Second Committee, 27th meeting, paras. 1-7.

[3] A/38/190-E/1983/67.

8. Requests the Secretary-General to submit to the General Assembly at its thirty-ninth session, through the Economic and Social Council, a report on the exchange of information on banned hazardous chemicals and unsafe pharmaceutical products identifying elements for possible further work in this area in regard to the needs and capabilities of developing countries to monitor and control those substances in the light of the relevant observations in the report of the Secretary-General;

9. Requests the Secretary-General and the organs, organizations and other competent bodies of the United Nations system to continue to provide, within available resources, the necessary technical assistance to the developing countries, at their request, for the establishment or strengthening of national systems for better use by those countries of the information provided with regard to banned hazardous chemicals and unsafe products, as well as for an adequate monitoring of the importation of those products.

102nd plenary meeting
19 December 1983

General Assembly resolution 39/229

Protection against products harmful to health and the environment

The General Assembly,

Reaffirming its resolutions 37/137 of 17 December 1982 and 38/149 of 19 December 1983,

Taking note with satisfaction of the report of the Secretary-General on products harmful to health and the environment,[4]

Bearing in mind the report of the Secretary-General on the exchange of information on banned hazardous chemicals and unsafe pharmaceutical products,[5] and welcoming the effort being made in various international forums with regard to the exchange of information on such products,

1. Expresses its appreciation to the Secretary-General and commends him for the distribution of the first issue of the consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or, in the case of pharmaceuticals, not approved by Governments;

2. Reiterates its appreciation for the co-operation extended by Governments in the preparation of the consolidated list, and urges all Governments that have not yet done so to provide the necessary information for inclusion in the updated versions of the list;

3. Notes with satisfaction the co-operation provided by the appropriate organs, organizations and bodies of the United Nations system and other intergovernmental organizations in the issuance of the list and urges them, particularly the Food and Agriculture Organization of the United Nations, the World Health Organization, the International Labour Organization, the United Nations Environment Programme, the General Agreement on Tariffs and Trade and

[4] A/39/452.
[5] A/39/290-E/1984/120.

the United Nations Centre on Transnational Corporations, to continue to co-operate fully in the preparation of the updated versions of the list;

4. Expresses its appreciation for the co-operation provided by non-governmental organizations in this regard, and urges them to continue to extend co-operation to the Secretary-General in the preparation of the consolidated list, particularly in the identification of potential sources of information among national Governments and in obtaining governmental information on relevant regulatory actions;

5. Decides that:

(a) An updated consolidated list should be issued annually and that the data should be made available to Governments and other users in such a form as to permit direct computer access to it;

(b) In order to keep costs to a minimum, the consolidated list should be published and made available in all the official languages of the United Nations in sets of alternating languages each year, with no more than three languages per year and with the same frequency for each language;

(c) The format of the consolidated list should be kept under continuing review with a view to its improvement, in accordance with General Assembly resolution 37/137, in co-operation with the relevant organs, organizations and bodies of the United Nations system, taking into account the complementary nature of the list, the experiences obtained and the views expressed by Governments on this matter, and that the next review should be submitted by the Secretary-General to the General Assembly at its forty-first session;

(d) The review of the consolidated list should cover particularly the advantages and disadvantages of introducing to the list such information as the legal, public health and commercial context of the regulatory actions, as well as complementary information on safe uses of the products;

6. Urges importing countries, bearing in mind the extensive legal, public health and safety information already provided to the United Nations Centre on Transnational Corporations, the United Nations Environment Programme, the International Labour Organisation, the Food and Agriculture Organization of the United Nations, the World Health Organization and the General Agreement on Tariffs and Trade, to avail themselves of the information provision facilities of those organizations, which include, in some cases, direct computer access;

7. Requests the Secretary-General, with the assistance of the appropriate specialized agencies, to submit to the General Assembly at its forty-first session a report on a review of the various information exchange schemes now in operation within the United Nations system;

8. **Requests** the Secretary-General and the competent organs, organizations and bodies of the United Nations system to continue to provide the necessary technical assistance to the developing countries, at their request, for the establishment or strengthening of national systems for managing hazardous chemicals and pharmaceutical products, as well as for an adequate monitoring of the importation, manufacture and use of those products;

9. **Also requests** the Secretary-General, through the Economic and Social Council, to inform the General Assembly at its forty-first session and every three years thereafter about the implementation of resolutions 37/137 and 38/149 and of the present resolution;

10. **Further requests** the Secretary-General to take the necessary measures for the implementation of the present resolution.

104th plenary meeting
18 December 1984

General Assembly resolution 44/226

Traffic in and disposal, control and transboundary movements of Toxic and dangerous products and wastes

The General Assembly,

Recalling its resolutions 37/137 of 17 December 1982, 38/149 of 19 December 1983 and 39/229 of 18 December 1984, as well as its decision 41/450 of 8 December 1986,

Recalling also its resolution 42/183 of 11 December 1987 on traffic in toxic and dangerous products and wastes,

Recalling further its resolution 43/212 of 20 December 1988, entitled "Responsibility of States for the protection of the environment: prevention of the illegal international traffic in, and the dumping and resulting accumulation of, toxic and dangerous products and wastes affecting the developing countries in particular",

Recalling Economic and Social Council resolutions 1988/70 and 1988/71 of 28 July 1988 and taking note of Council resolution 1989/104 of 27 July 1989,

Taking note of the report of the Secretary-General on products harmful to health and the environment[6] and Economic and Social Council decision 1989/177 of 27 July 1989,

Taking note also of decisions 15/28 and 15/30 of 25 May 1989 of the Governing Council of the United Nations Environment Programme,[7]

Welcoming the report of the Secretary-General on illegal traffic in toxic and dangerous products and wastes,[8]

Taking note of the conclusion of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal,[9]

Inviting all States to consider signing the Basel Convention without prejudice to the final positions to be taken by regional intergovernmental organizations in this regard,

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[6] A/44/276-E/1989/78.

[7] See Official Records of the General Assembly, Forty-fourth Session, Supplement No. 25 (A/44/25), annex I.

[8] A/44/362 and Corr.1.

[9] See UNEP/IG.80/3.

Mindful of the growing threat to the environment and to human health and safety posed by the improper management and the increased generation, complexity and transboundary movement of hazardous wastes,

Convinced that illegal traffic in toxic and dangerous products and wastes poses a severe threat to the environment and to human health and safety,

Also convinced that these problems cannot be resolved without adequate co-operation among members of the international community,

Deeply concerned by the fact that cases of illegal transboundary movement and dumping of dangerous products and wastes particularly harmful for the environment and human health continue to occur, affecting, in particular, developing countries,

Convinced of the need to assist all countries, particularly developing countries, in obtaining all appropriate information concerning toxic and dangerous products and wastes and in reinforcing their capacity to detect and halt any illegal attempt to introduce toxic and dangerous products and wastes into the territory of any State in contravention of national legislation and relevant international legal instruments, as well as traffic not carried out in compliance with internationally accepted guidelines and principles in this field,

I

TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS AND WASTES

1. Requests each regional commission, within existing resources, to contribute to the prevention of the illegal traffic in toxic and dangerous products and wastes by monitoring and making regional assessments of this illegal traffic and its environmental and health implications, on a continuing basis, in each region, and, in this context, in co-operation with and relying upon expert support and advice from the United Nations Environment Programme and other relevant bodies of the United Nations, including the International Register of Potentially Toxic Chemicals, and Ad Hoc Working Group of Experts on Prior Informed Consent and Other Modalities to Supplement the London Guidelines for the Exchange of Information on Chemicals in International Trade, and the Interim Secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, without prejudice to the final position to be taken by regional intergovernmental organizations on the Convention, and to report to the Economic and Social Council at its second regular session starting in 1990;

2. Also requests the regional commissions to interact among themselves and co-operate with the United Nations Environment Programme, with a view to maintaining efficient and co-ordinated monitoring and assessment of the illegal traffic in toxic and dangerous products and wastes;

3. Requests the Economic and Social Council to submit recommendations to the General Assembly on the findings and conclusions of the regional commissions, in their consideration of environmental issues;

4. Calls upon all countries to co-operate with their respective regional commissions with the aim of preventing the illegal traffic in toxic and dangerous products and wastes;

II

PROTECTION AGAINST PRODUCTS HARMFUL TO HEALTH AND THE ENVIRONMENT

1. Expresses its appreciation to the Secretary-General for his report on products harmful to health and the environment, which contains a review of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments;

2. Notes with appreciation the co-operative relationship established between the United Nations, the World Health Organization and the United Nations Environment Programme International Register of Potentially Toxic Chemicals for the preparation of the Consolidated List;

3. Notes, in this context, the need to utilize also the work being done by the Working Group on Export of Domestically Prohibited Goods and Other Hazardous Substances established by the General Agreement on Tariffs and Trade and those activities which are currently under way within the framework of the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations in connection with implementation of prior informed consent schemes for chemicals and pesticides in international trade and which implement the system of information exchange envisaged by the developers of the Consolidated List, as well as the work being done under international agreements and conventions in related areas;

4. Expresses its appreciation for the growing co-operation by Governments in the preparation of the Consolidated List, and urges all Governments that have not yet done so to provide the necessary information for inclusion in updated versions of the Consolidated List;

5. Requests the Secretary-General to ensure, within existing resources, publication of the Consolidated List in English, French and Spanish, in accordance with demand, bearing in mind its resolution 39/229;

6. Also requests the Secretary-General to undertake a special effort to ensure effective and wider dissemination of the Consolidated List in all appropriate circles;

7. Further requests the Secretary-General, in this context, to consider ways and means of ensuring more effective involvement of non-governmental organizations in promoting the dissemination and utilization of the Consolidated List;

8. Requests the Secretary-General, in the context of the preparation of his next scheduled report on the question:

(a) To make specific suggestions on ways and means of providing technical co-operation, including through appropriate United Nations organizations, to countries, in particular developing countries, to create and strengthen their capacity to utilize the Consolidated List;

(b) To study all the pending issues, such as sustainable alternatives to banned and severely restricted products and unregistered pesticides, with a focus on improving the usefulness of the Consolidated List;

III

CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

1. Recognizes the necessity of developing rules of international law, as early as practicable, on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes;

2. Requests the Executive Director of the United Nations Environment Programme, in accordance with the resolutions adopted at the Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes, held at Basel, Switzerland, from 20 to 22 March 1989, to establish, on the basis of equitable geographical representation and in consultation with Governments, an ad hoc working group of legal and technical experts to develop, as early as practicable, elements that might be included in a protocol on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and to report to the preparatory committee of the United Nations conference on environment and development and to the Governing Council of the United Nations Environment Programme, in accordance with its mandate in this regard;

3. Invites the Executive Director of the United Nations Environment Programme and the Secretary-General of the International Maritime Organization, in consultation, as appropriate, with other relevant international organizations, to review the existing rules, regulations and practices with respect to the disposal of hazardous wastes at sea, in order to harmonize the provisions of the relevant conventions as adopted in this regard;

4. Requests the Secretary-General, in co-operation with the Executive Director of the United Nations Environment Programme, to report to the General Assembly at its forty-sixth session, through the Economic and Social Council, on the progress achieved in the implementation of the provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and of the present resolution.

85th plenary meeting
22 December 1989

Economic and Social Council resolution 1998/41

Protection against products harmful to health and the environment

The Economic and Social Council,

Recalling General Assembly resolutions 37/137 of 17 December 1982, 38/149 of 19 December 1983, 39/229 of 18 December 1984 and 44/226 of 22 December 1989, as well as Assembly decisions 47/439 of 22 December 1992 and 50/431 of 20 December 1995,

Taking note of the report of the Secretary-General on products harmful to health and the environment,[10] which contains a review of the Consolidated List of Products Whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or not Approved by Governments,

Noting with satisfaction the continued close collaboration between the United Nations, the Food and Agriculture Organization of the United Nations, the World Health Organization and the United Nations Environment Programme in the preparation of the Consolidated List,

Taking note of the successful conclusion of the negotiations to develop a legally binding instrument for the application of the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade (Rotterdam Convention),

1. Welcomes the report of the Secretary-General on products harmful to health and the environment and notes the progress being achieved in increasing the number of countries that participate in the preparation of the Consolidated List of Products Whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or not Approved by Governments;

2. Expresses its appreciation for the cooperation extended by Governments in the preparation of the Consolidated List and urges all Governments, in particular those that have not yet done so, to provide the necessary information to relevant organizations for inclusion in future issues of the Consolidated List;

3. Requests the Secretary-General to continue to prepare the Consolidated List focusing on chemicals and pharmaceutical products in alternate years, with the same frequency for each official language in publishing the Consolidated List as was envisioned in General Assembly resolutions 39/229 and 44/226;

4. Also requests the Secretary-General to continue to provide the necessary technical assistance to developing countries, at their request, for the establishment and/or strengthening of national capacity for managing hazardous chemicals and pharmaceutical products;

5. Urges the adoption of the agreed text of the Rotterdam Convention at the diplomatic conference to be held in Rotterdam, the Netherlands, on 10 and 11 September 1998 and calls for a speedy ratification by the signatories of the Convention, aimed at its early entry into force;

6. Emphasizes the need to continue to utilize the work being undertaken by relevant organizations of the United Nations system and other

[10] A/53/156-E/1998/78.

intergovernmental organizations in this area, as well as that being carried out under international agreements and conventions in related areas in updating the Consolidated List;

7. Requests the Secretary-General to continue to report every three years, in accordance with General Assembly resolution 39/229, on the implementation of the present resolution and of previous Assembly resolutions on the same subject.

46th plenary meeting
30 July 1998

Economic and Social Council resolution 2001/33

Protection against products harmful to health and the environment

The Economic and Social Council,

Recalling General Assembly resolutions 37/137 of 17 December 1982, 38/149 of 19 December 1983, 39/229 of 18 December 1984 and 44/226 of 22 December1989, General Assembly decisions 47/439 of 22 December 1992 and 50/431 of 20December 1995, and Council resolution 1998/41 of 30 July 1998,

Having considered the report of the Secretary-General on products harmful to health and the environment, [11] which contains a review of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments, [12]

Taking note of the fact that an increasing number of countries participate in the preparation of the Consolidated List,

Noting *with satisfaction* the continued close collaboration between the United Nations, the Food and Agriculture Organization of the United Nations, the World Health Organization, the United Nations Environment Programme and the World Trade Organization in the preparation and dissemination of the Consolidated List,

1. Expresses its appreciation for the cooperation extended by Governments in the preparation of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments, [13] and urges all Governments, in particular those that have not yet done so, to provide the necessary information to relevant organizations for inclusion
in future issues of the Consolidated List;

2. Requests the Secretary-General to prepare each of the two issuances of the Consolidated List, pharmaceuticals and chemicals, in all official languages — the English version in the already established format, and the versions in

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[11] A/56/115-E/2001/92.

[12] For previous issues of the Consolidated List, see United Nations publications, Sales Nos. E.84.IV.8, E.87.IV.a, E.91.IV.4, E.94.IV.3 and E.97.IV.2.

[13] UNEP/FAO/PIC/CONF/5, annex III.

the other languages as a text file. In this connection, the Consolidated List should continue to include previously collected data, while at the same time making distinct entries for
those products covered in the interim prior informed consent procedure, in line with the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and should consequently keep updating the information contained therein, in accordance with relevant action being taken by the Convention;

3. Invites multilateral and bilateral agencies to continue to strengthen and coordinate their activities for improving the capacity-building of developing countries, particularly least developed countries, including innovative methodologies for earmarking, assessing and monitoring technical assistance in the area of the sound management of hazardous chemicals and dangerous pharmaceutical products;

4. Emphasizes the need to continue to utilize the work being undertaken by relevant organizations of the United Nations system and other intergovernmental organizations in this area, as well as that being carried out under international agreements and conventions in related areas in updating the Consolidated List;

5. Requests the Secretary-General to continue to report every three years, in accordance with General Assembly resolution 39/229, on the implementation of the present resolution and of previous Assembly resolutions on the same subject;

6. Requests the Secretary-General, within existing resources, to continue to disseminate the list as widely as possible and to look at the possibility of using online dissemination in collaboration with the World Trade Organization, the Food and Agriculture Organization of the United Nations, the World Health Organization and the United Nations Environment Programme.

43rd plenary meeting
26 July 2001

Economic and Social Council resolution 2004/55

Protection against products harmful to health and the environment

The Economic and Social Council,

Recalling General Assembly resolutions 37/137 of 17 December 1982, 38/149 of 19 December 1983, 39/229 of 18 December 1984 and 44/226 of 22 December 1989, Assembly decisions 47/439 of 22 December 1992 and 50/431 of 20 December 1995, and Economic and Social Council resolutions 1998/41 of 30 July 1998 and 2001/33 of 26 July 2001,

Having considered the report of the Secretary-General on products harmful to health and the environment,[14] which contains a review[15] of the Consolidated

[14] A/59/81-E/2004/63.
[15] Ibid., sect. II.

List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments,[16]

Taking note of the fact that an increasing number of countries participate in the preparation of the Consolidated List,

Noting with satisfaction the continued close collaboration among the United Nations, the Food and Agriculture Organization of the United Nations, the World Health Organization and the United Nations Environment Programme in the preparation and dissemination of the Consolidated List,

Taking note of commitments made and targets established regarding environmentally sound management of chemicals in the Plan of Implementation of the World Summit on Sustainable Development ("Johannesburg Plan of Implementation"),[17] adopted by the Summit on 4 September 2002,

Noting the coming into force, in early 2004, of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade[18] and the Stockholm Convention on Persistent Organic Pollutants,[19]

1. ***Takes note*** of the report of the Secretary-General on products harmful to health and the environment and notes the online availability[20] of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments;

2. ***Expresses its appreciation*** for the cooperation extended by Governments in the preparation of the Consolidated List, and urges all Governments, in particular those that have not yet done so, to provide the necessary information to relevant organizations for inclusion in future issues of the Consolidated List;

3. ***Requests*** the Secretary-General to continue to update the electronic version of the Consolidated List, alternating between chemicals and pharmaceuticals every year, while printing only new data to complement previously printed issues for the benefit of those, particularly in developing countries, who may not have easy access to the electronic version;

4. ***Urges*** all Governments to participate fully in the process of developing a strategic approach to international chemicals management by 2005, in order to achieve the 2020 target of the World Summit on Sustainable Development, as set out in paragraph 23 of the Plan of Implementation of the World Summit on Sustainable Development ("Johannesburg Plan of Implementation"), pursuant to which chemicals would be used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent science-based risk assessment procedures and science-based risk management procedures, taking into account the precautionary approach, as set out in principle 15 of the Rio Declaration on

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[16] United Nations publications, Sales Nos. E.03.IV.9 and E.04.IV.2. For previous issues of the Consolidated List, see United Nations publications, Sales Nos. E.84.IV.8, E.87.IV.1, E.91.IV.4, E.94.IV.3, E.97.IV.2, E.02.IV.3 and E.03.IV.3.

[17] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August - 4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 1, annex. 5 Text available from http://www.pic.int/en/ViewPage.asp?id=104 (accessed 22 July 2004).

[18] Text available from http://www.pic.int/en/ViewPage.asp?id=104 (accessed 22 July 2004).

[19] Text available from http://www.pops.int/. (accessed 22 July 2004).

[20] Available from www.un.org/esa/coordination/ecosoc/Path:Publications (accessed 22 July 2004).

Environment and Development,[21] and support developing countries in strengthening their capacity for the sound management of chemicals and hazardous wastes by providing technical and financial assistance, and calls for a more coordinated use of existing international instruments in this field, taking into account the work undertaken by the United Nations system in this regard;

5. ***Encourages*** countries to implement the new Globally Harmonized System of Classification and Labeling of Chemicals[22] as agreed in paragraph 23 (c) of the Johannesburg Plan of Implementation as soon as possible, with a view to having the system fully operational by 2008;

6. ***Urges*** all Governments that have not yet done so to consider ratifying the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants and to fully implement them;

7. ***Invites*** multilateral and bilateral agencies to continue to strengthen and coordinate their activities for improving the capacity-building of developing countries, particularly least developed countries, as well as countries with economies in transition, inter alia, through technical assistance in the area of the sound management of hazardous chemicals and dangerous pharmaceutical products;

8. ***Emphasizes*** the need to continue to utilize the work being undertaken by relevant organizations of the United Nations system and other intergovernmental organizations in this area, as well as that being carried out under international agreements and conventions in related areas, in updating the Consolidated List;

9. ***Requests*** the Secretary-General to continue to report every three years, in accordance with General Assembly resolution 39/229 of 18 December 1984, on the implementation of the present resolution, taking into account previous Assembly resolutions on the same subject, as appropriate.

50th plenary meeting
23 July 2004

[21] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex I.
[22] United Nations publication, Sales No. E.03.II.E.25.

Annex II

Criteria for the inclusion of pharmaceutical and chemical products in the Consolidated List

A. Pharmaceutical products[a]

a) "Banned product"

A product that has been withdrawn from use and/or sale nationally in one or more countries by order of the competent national authority, having regard to its safety in relation to its intended use.

b) "Voluntary product"

A product that has been withdrawn from use and/or sale nationally in one or more countries by voluntary action of the manufacturer, having regard to its safety in relation to its intended use.

c) "Severely restricted"

A product containing:

(a) A substance that is controlled more rigorously than is provided for under the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances or that is subjected to analagous control at the national level before it has been considered for international scheduling,

(b) A substance that may be incorporated in pharmaceutical dosage forms only within the specific limits determined by statute;

(c) A substance that is approved by a competent national authority and is subsequently subjected to restrictions that exclude its use in a substantial proportion of the potential target population of patients having regard to its safety. A substance which from the outset has been severely restricted in its indications having regard to the known balance of safety and efficacy is excluded.

d) "Non-approved"

A product that has been formally submitted for registration by a manufacturer to a national competent authority and which has been rejected on grounds of safety.

B. Chemical products

a) "Banned"

A product that has been prohibited for all uses nationally in one or more countries by final government regulatory action because of health or environmental reasons.

b) "Withdrawn"

A product formerly in commerce that has been withdrawn for all uses nationally in one or more countries by final voluntary action of the manufacturer because of health or environmental reasons.

c) "Severely restricted"

A product for which virtually all uses have been prohibited nationally in one or more countries by final government regulatory action because of health or environmental reasons, but for which certain specific uses remain authorized.

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[a] Products, which are in illicit trade only, would not be considered.

Annex III

List of references cited in the regulatory text

AARNO MINISTRY OF HEALTH
LAGOS, NIGERIA

ARGANM ADMINISTRACIÓN NACIONAL DE MEDICAMENTOS Y TECNOLOGIA MEDICA
MINISTERIO DE SALUD
BUENOS AIRES, ARGENTINA

ARGBO ADMINISTRACIÓN NACIONAL DE MEDICAMENTOS Y TECNOLOGIA MEDICA
TECNOLOGIA MEDICA, MINISTERIO DE SALUD
BUENOS AIRES, ARGENTINA

ARGFDM FOOD, DRUG AND MEDICAL DEVICES AGENCY (ANMAT)
MINISTRY OF HEALTH
BUENOS AIRES, ARGENTINA
www.anmat.gov.ar

ARMCW ARMENIAM DRUG AND MEDICAL TECHNOLOGY AGENCY
MINISTRY OF HEALTH
YEREVAN, ARMENIA

ASTRA ASTRA-ZENECA
15 STANHOPE GATE
LONDON W1K 1LN
UNITED KINGDOM

AUDEC REPORT OF THE AUSTRALIAN DRUG EVALUATION COMMITTEE
COMMONWEALTH DEPARTMENT OF HEALTH
WODEN, P. O. BOX 200, ACT, 2606
AUSTRALIA

AUSADR ADVERSE DRUG REACTIONS UNIT
THERAPEUTIC GOODS ADMINISTRATION,
DEPARTMENT OF COMMUNITY SERVICES AND HEALTH
WODEN, AUSTRALIA

AUSMDR THERAPEUTIC GOODS ADMINISTRATION,
DEPARTMENT OF COMMUNITY SERVICES AND HEALTH
WODEN, AUSTRALIA
www.health.gov.au

AUSPRE AUSTRALIAN PRESCRIBER
DEAKIN ACT 2600
AUSTRALIA
www.australianprescriber.com

AUSTGA THERAPEUTIC GOODS ADMINISTRATION,
DEPARTMENT OF COMMUNITY SERVICES AND HEALTH
WODEN, AUSTRALIA

AUTMH MINISTRY OF HEALTH

List of references cited in the regulatory text

VIENNA, AUSTRIA

AUTGB BUNDESGESETZBLATT FUR DIE REPUBLIK OESTERREICH
DIRECTORATE GENERAL OF PUBLIC HEALTH
FEDERAL CHANCERY DEPT VI (PUBLIC HEALTH)
2, RADETZKYSTRASSE
VIENNA, 1031
AUSTRIA

BDSMHS MEDICAL AND HEALTH SERVICES HEADQUARTERS
MINISTRY OF HEALTH
BRUNEI DARUSSALAM

BDSOL MINISTRY OF HEALTH
BRUNEI DARUSSALAM

BELAP ANNALES PHARMACEUTIQUES BELGES
BRUXELLES, BELGIQUE

BELAR ARRETE ROYAL
INSPECTION GENERALE DE LA PHARMACIE,
MINISTERE DE LA SANTE ET DE LA FAMILLE
CITE ADMINISTRATIVE DE L'ETAT
QUARTIER VERSALE
1010 BRUXELLES, BELGIUM

BELARD BELGIAN CENTRE FOR MONITORING OF ADVERSE REACTION TO DRUGS
BRUSSELS, BELGIUM

BELGPI GENERAL PHARMACEUTICAL INSPECTOR ATE
MINISTRY OF PUBLIC HEALTH AND ENVIRONMENT
BRUSSELS, BELGIUM

BELMD MINISTERIAL DECREE
MINISTERE DE LA SANTE PUBLIQUE ET DE L'ENVIRONNEMENT
BRUSSELS, BELGIUM

BFOLP "FOLIA PHARMACOTHERAPEUTICA"
CENTRE BELGE D'INFORMATION PHARMACOTHERAPEUTIQUE
MINISTERE DE LA SANTE PUBLIQUE ET DE LA FAMILLE
ADMINISTRATION DE L'HYGIENE
1010 BRUXELLES, BELGIUM

BGDCO "THE DRUGS (CONTROL) ORDINANCE 1982, ORDINANCE NO. VIII"
OFFICE OF THE DIRECTOR
HEALTH MANPOWER DEVELOPMENT
105/106 MOTIJHEEL COMMERCIAL AREA
DACCA 2, BANGLADESH

BGDDDA DIRECTORATE OF DRUG ADMINISTRATION
MINISTRY OF HEALTH AND FAMILY WELFARE
DACCA, BANGLADESH

List of references cited in the regulatory text

BGHBL BUNDESGESUNDHEITSBLATT
BONN, GERMANY

BGNDI MINISTRY OF HEALTH
DACCA, BANGLADESH

BGRBDA BULGARIAN DRUG AGENCY
MINISTRY OF HEALTH
SOFIA, BULGARIA

BHRCW PHARMACY AND DRUG CONTROL DEPARTMENT
MINISTRY OF HEALTH
P. O. BOX 12
BAHRAIN

BIFTI BOLLETINO D'INFORMAZIONE SUI FARMACI
GENERAL DIRECTOR
PHARMACEUTICAL DIVISION
VIALE DELLA CIVILTA ROMANA 7
00144 ROMA, ITALY

BMCHL DEPARTAMENTO CONTROL NACIONAL
INSTITUTO SALUD PUBLICA DE CHILE
MINISTERIO DE SALUD
MARATHON 100, SANTIAGO
CHILE

BMJOAE BRITISH MEDICAL JOURNAL
BRITISH MEDICAL ASSOCIATION
TAVISTOCK SQUARE
LONDON WCIH 9JR, ENGLAND

BNIPH BULLETIN OF THE NATIONAL INSTITUTE OF PHARMACY 1984
NATIONAL INSTITUTE OF PHARMACY
ZRINYI U.3
H-1051, BUDAPEST, HUNGARY

BRACVS CENTRO DE VIGILANCIA SANITARIA
MINISTRY OF HEALTH
RIO DE JANEIRO, 21 040
BRAZIL

BRADMS DIARIO OFICIAL MINISTERIO DA SAUDE
RIO DE JANEIRO 21 040
BRAZIL

BRAPT PORTARIA DO SERVICO PUBLICO FEDERAL
MINISTRY OF HEALTH
RIO DE JANEIRO, 21 040
BRAZIL

BRARES NATIONAL HEALTH SURVEILLANCE AGENCY
MINISTRY OF HEALTH
BRASILIA, BRAZIL

List of references cited in the regulatory text

BRASVS MINISTERIO DA SAUDE
RIO DE JANEIRO 21 040
BRAZIL

CANBMS BRISTOL-MYERS SQUIBB
CANADA
www.hc-sc.gc.ca

CANDHP BAYER PHARMACEUTICAL DIVISION
www.hc-sc.gc.ca/

CANGZ CANADA GAZETTE
CANADIAN GOVERNMENT PUBLISHING CENTER
OTTAWA, ONTARIO K1A OS9
CANADA

CANHW CANADA HEALTH AND WELFARE
OTTAWA, ONTARIO
CANADA

CANPR HEALTH CANADA
OTTAWA, ONTARIO K1A 0K9
CANADA

CANWHC HEALTH CANADA
OTTAWA, ONTARIO K1A 0K9
CANADA
www.hc-sc.gc.ca

CECC COMMISSION OF THE EUROPEAN COMMUNITIES
200, RUE DE LA LOI
BE - 1049 BRUXELLES, BELGIUM

CFRUS CODE OF FEDERAL REGULATIONS
OFFICE OF THE FEDERAL REGISTER
NATIONAL ARCHIVES AND RECORDS SERVICE
US GOVERNMENT PRINTING OFFICE
GENERAL SERVICES ADMINISTRATION
WASHINGTON, DC 20402, USA

CGPR PRESS RELEASE FROM CIBA-GEIGY

CHBCM BULLETIN MENSUEL
ORGANISATION INTERCANTONALE DE CONTROLE DES MEDICAMENTS
BERNE, SWITZERLAND

CHEAZ SCHWEIZER APOTHEKER ZEITUNG
SWITZWERLAND

CHEOCM INTERCANTONAL OFFICE FOR THE CONTROLOF MEDICINES
BERNE, SWITZERLAND

List of references cited in the regulatory text

CHEPR SWISS AGENCY FOR THERAPEUTIC PRODUCTS
FEDERAL DEPARTMENT OF HOME AFFAIRS
BERNE, SWITZERLAND
www.swissmedic.ch

CHLCW PUBLIC HEALTH INSTITUTE OF CHILE
MINISTRY OF HEALTH
SANTIAGO, CHILE

CHLMS MINISTERIO DE SALUD
SANTIAGO, CHILE

CHLRS INSTITUTE OF PUBLIC HEALTH
AVDA MARATHON 1000
SANTIAGO, CASILLA 48
CHILE

COECI COUNCIL OF EUROPE
STRASBOURG
FRANCE

COLVMA INSTITUTO NACIONAL DE VIGILANCIA DE MEDICAMENTOS Y ALIMENTOS
MINISTERIO DE SALUD
BOGOTA, COLOMBIA

CPMPAR COMMITTEE ON PROPRIETARY MEDICINAL PRODUCTS
EUROPEAN COMMISSION
BRUSSELS

CPMPDP COMMITTEE FOR PROPRIETARY MEDICINAL PRODUCTS
COMMISSION OF THE EUROPEAN COMMUNITIES
LUXEMBOURG

CPMPPO COMMITTEE FOR PROPRIETARY MEDICINAL PRODUCTS
COMMISSION OF THE EUROPEAN COMMUNITIES
LUXEMBOURG

CPMPPP COMMITTEE ON PROPRIETARY MEDICINAL PRODUCTS
EUROPEAN COMMISSION
BRUSSELS

CPMPPS COMMITTEE FOR PROPRIETARY MEDICINAL PRODUCTS
COMMISSION OF THE EUROPEAN COMMUNITIES
LUXEMBOURG

CRDDL COMMUNICATION FROM ROUSSEL ENCLOSING “DEAR DOCTOR LETTER”
UNITED KINGDOM

CRU COMMUNICATION TO WHO
ROUSEL UCLOF
PARIS, FRANCE

CUBCDQ CENTRE FOR STATE CONTROL OF DRUG QUALITY (CECMED)

List of references cited in the regulatory text

MINISTRY OF HEALTH
HAVANA, CUBA

CYPPS MINISTRY OF HEALTH
NICOSIA, CYPRUS

DAZ DEUTSCHE APOTHEKER ZEITUNG
GERMANY

DCCKB DRUG COMPANY COMMUNICATION
KABI PHARMACIA

DCCSKB DRUG COMPANY COMMUNICATION
SMITH KLINE BEECHAM
BRENTFORD, UNITED KINGDOM

DCCUJC NEWS RELEASE
THE UPJOHN COMPANY
KALAMAZO, MI 49001
UNITED STATES

DENBH DANISH NATIONAL BOARD OF HEALTH
COPENHAGEN, DENMARK

DEUAB DEUTSCHES AERTZTEBLATT
GERMANY

DEUCDC DRUG COMMISSION OF THE GERMAN MEDICAL PROFESSION
BERLIN, GERMANY

DEUCFI FEDERAL INSTITUTE FOR DRUGS AND MEDICAL DEVICES
BERLIN, GERMANY

DEUCW FEDERAL INSTITUTE FOR DRUGS AND MEDICAL DEVICES
BERLIN, GERMANY

DEUFHO FEDERAL HEALTH OFFICE
BERLIN, GERMANY

DEUNFI FEDERAL INSTITUTE FOR DRUGS AND MEDICAL DEVICES
BERLIN, GERMANY

DEUPD BGA PRESSEDIENST
BUNDESGESUNDHEITSAMT (FEDERAL HEALTH OFFICE)
BERLIN (WEST) 65, POSTFACH 33 00 13, D-1000
GERMANY

DEUPM BERLIN, GERMANY

DEUPZ PHARMAZEUTISCHE ZEITUNG
BERLIN, GERMANY

List of references cited in the regulatory text

DEURFI FEDERAL INSTITUTE FOR DRUGS AND MEDICAL DEVICES
BERLIN, GERMANY

DWM DEUTSCHES WICHTIGE MITTEILUNGEN
BERLIN, GERMANY

EGYDC EGYPTION TECHNICAL COMMITTEE FOR DRUG CONTROL
MINISTRY OF HEALTH
CAIRO, EGYPT

EGYDI EGYPTION PHARMACOPOEIAL INFORMATION CENTRE
MINISTRY OF HEALTH
CAIRO, EGYPT

EMEAPR EUROPEAN AGENCY FOR THE EVALUATION OF MEDICINES
LONDON, UNITED KINGDOM

EMEAPS EUROPEAN AGENCY FOR THE EVALUATION OF MEDICINES
LONDON, UNITED KINGDOM
www.emea.eu.int

ESPAES AGENCIA ESPAÑOLA DE MEDICAMENTO
MINISTERIO DE SANIDAD Y CONSUMO
MADRID, SPAIN

ESPCDR EUROPEAN AGENCY FOR THE EVALUATION OF MEDICINAL PRODUCTS
LONDON, UNITED KINGDOM
www.msc.es/agemed

ESPCR MINISTRY OF HEALTH AND CONSUMER PRODUCTS
MADRID, SPAIN

ESPINS INFORMACION TERAPEUTICA DE LA SEGURIDAD SOCIAL
INSTITUTO NACIONAL DE LA SALUD
MADRID
SPAIN

ESPITS INFORMACION DE LA TERAPEUTICA DEL SISTEMA NACIONAL DE SALUD
MADRID
SPAIN

ESPMAD SPANISH MEDICINES AGENCY
MINISTRY OF HEALTH
MADRID, SPAIN

ESPMC PROGRAMA SELECTIVO DE REVISION DE MEDICAMENTOS
MINISTERIO DE SANIDAD Y CONSUMO
MADRID
SPAIN

ESPOR MINISTERIO DE SANIDAD Y CONSUMO
DIRECCION GENERAL DE INSPECCION DEL CONSUMO
MADRID, SPAIN

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ESPSMA SPANISH AGENCY FOR MEDICINES AND MEDICAL DEVICES
MINISTRY OF HEALTH AND CONSUMER PRODUCTS
MADRID, SPAIN
www.agemed.es

ESPSPS SPANISH PHARMACOVIGILANCE SYSTEM
MINISTRY OF HEALTH AND CONSUMER PRODUCTS
MADRID, SPAIN

FDADB US DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL CENTRE FOR DRUGS & BIOLOGICS
FOOD AND DRUG ADMINISTRATION
5600 FISHERS LANE
ROCKVILLE, MD, 20857, USA

FDAMB FOOD AND DRUG ADMINISTRATION
WASHINGTON D.C.
USA

FDATP FOOD AND DRUG ADMINISTRATION
WASHINGTON, D.C.
USA
www.fda.gov

FDATPW FOOD AND DRUG ADMINISTRATION
WASHINGTON, D.C.
USA

FDAWWW FOOD AND DRUG ADMINISTRATION
WASHINGTON, D.C.
USA

FEREAC US GOVERNMENT PRINTING OFFICE
SUPERINTENDENT OF DOCUMENTS
WASHINGTON, D.C. 20402
USA

FINAWH NATIONAL AGENCY FOR WELFARE AND HEALTH
HELSINKI, FINLAND

FINNAM NATIONAL AGENCY FOR MEDICINES
HELSINKI, FINLAND

FMOPL LE MONITEUR DES PHARMACIES ET DES LABORATOIRES
15 RUE GODEFROY-CAVAIGNAC
75011 PARIS, FRANCE

FRAAM JOURNAL OFFICIEL DE LA REPUBLIQUE FRANCAISE
PARIS, FRANCE

FRAAMA AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE

FRAAMC AGENCE DU MÉDICAMENT

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SAINT-DENIS, FRANCE

FRAAMI AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE

FRAAMN AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE

FRAAMP AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE
www.agmed.sante.gouv.fr

FRAAMR AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE

FRAARN PARIS, FRANCE

FRACCE COMMISSION DES COMMUNAUTÉS EUROPÉENNES
LUXEMBOURG

FRACW AGENCE DU MÉDICAMENT
SAINT-DENIS, FRANCE

FRADRA PARIS, FRANCE.

FRAMH MINISTRY OF SOLIDARITY, HEALTH AND SOCIAL PROTECTION
PARIS, FRANCE

FRAMHH MINISTRY OF HEALTH AND HUMANITARIAN ACTION
PARIS, FRANCE

FRAMHS MINISTRY OF HEALTH AND SOCIAL AFFAIRS
PARIS, FRANCE

FRAMS MINISTRY OF SOCIAL AFFAIRS AND INTEGRATION
PARIS, FRANCE

FRAMSS MINISTRY OF SOCIAL AFFAIRS AND SOLIDARITY
PARIS, FRANCE

FRAPC MINISTRY OF HEALTH AND FAMILY AFFAIRS
1, PLACE DE FONTENOY
PARIS 75700
FRANCE

FRARP LA REVUE PRESCRIRE
PARIS
FRANCE

FRGGH BUNDESGESUNDHEITSAMT
BERLIN (WEST)
GERMANY

List of references cited in the regulatory text

GAZIE CONTROLLER OF PUBLICATIONS
MINISTRY OF HEALTH AND FAMILY WELFARE
NEW DELHI, 110054 INDIA

GBCHL MEDICINES DIVISION
DEPARTMENT OF HEATH AND SOCIAL SECURITY,
MARKET TOWERS
1 NINE ELMS LANE
LONDON SW8 5NQ
UNITED KINGDOM

GBMIL DEPARTMENT OF HEALTH AND SOCIAL SECURITY
MARKET TOWERS, 1 NINE ELMS LANE
LONDON SW8 5NQ
UNITED KINGDOM

GBPHA MEDICINES DIVISION
DEPARTMENT OF HEALTH AND SOCIAL SECURITY,
MARKET TOWERS
1 NINE ELMS LANE
LONDON SW8 5NQ
UNITED KINGDOM

GBRCPP COMMITTEE ON SAFETY OF MEDICINES
MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM

GBRCSM COMMITTEE ON SAFETY OF MEDICINES
MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM

GBRCW COMMITTEE ON SAFETY OF MEDICINES
MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mhra.gov.uk

GBRDPR LONDON, UNITED KINGDOM

GBRDSI COMMITTEE ON SAFETY OF MEDICINES
MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mca.gov.uk

GBRISM MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.open.gov.uk

GBRKPR MEDICINES CONTROL AGENCY

List of references cited in the regulatory text

DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM

GBRLFC COMMITTEE ON SAFETY OF MEDICINES,
LONDON, UNITED KINGDOM
www.mhra.gov.uk

GBRMCA MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM

GBRMI UK MEDICINES INFORMATION (UKMi)
NATIONAL HEALTH SERVICES (NHS)
LONDON, UNITED KINGDOM
www.medicines.mhra.gov.uk

GBRMRS MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mca.gov.uk

GBRNBA NATIONAL BLOOD AUTHORITY
LONDON, UNITED KINGDOM

GBRNUP MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mca.gov.uk/whatsnew

GBRPHJ THE PHARMACEUTICAL JOURNAL
UNITED KINGDOM

GBRPR HOME OFFICE
LONDON, UNITED KINGDOM

GBRSIN MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM

GBRSKB SMITHKLINE BEECHAM
BRENTFORD, UNITED KINGDOM

GBRSMU COMMITTEE ON SAFETY OF MEDICINES
MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mca.gov.uk

GBRSTE MEDICINES CONTROL AGENCY
DEPARTMENT OF HEALTH
LONDON, SW1A 2NL, UNITED KINGDOM
www.mca.gov.uk

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GENMB "GENEESMIDDELENBULLETIN"
(DRUG INFORMATION BULLETIN)
MINISTRY OF WELFARE, HEALTH & CULTURE
POSTBUS 439
2260 AK LEIDSCHENDAM, NETHERLANDS

GHAPDR PHARMACY AND DRUGS (BANNED DRUGS) REGULATIONS,
LEGISLATIVE INSTRUMENTS
ACCRA, GHANA

GLAXO GLAXO RESEARCH AND DEVELOPMENT LTD
GREENFORD, MIDDLESEX
UNITED KINGDOM

GRAGA MINISTRY OF HEALTH
ATHENS, GREECE

GRANDO NATIONAL DRUG ORGANIZATION
ATHENS, GREECE

HHSNS DEPT. OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
ROCKVILLE, MARYLAND 20857
USA

HINDU THE HINDU
INDIA

HNDSP SECRETARIA DE ESTADO EN LOS DESPACHOS DE SALUD PUBLICA
DIRECCION GENERAL DE SALUD
TEGUCIGALPA, HONDURAS

HUNIH NATIONAL INSTITUTE OF OCCUPATIONAL HEALTH
BUDAPEST, HUNGARY

HUNIP NATIONAL INSTITUTE OF PHARMACY
BUDAPEST, HUNGARY

IARCCD INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
150, COURS ALBERT THOMAS
F-69372 LYON CEDEX 08
FRANCE

IDMH MINISTRY OF HEALTH
JAKARTA, INDONESIA

IDMHD MINISTERIAL DECREE
MINISTRY OF HEALTH
JAKARTA, INDONESIA

IDNCW NATIONAL AGENCY FOR DRUG AND FOOD CONTROL (NADFC)
MINISTRY OF HEALTH
JAKARTA, INDONESIA

List of references cited in the regulatory text

INDC	DIRECTOR GENERAL OF HEALTH SERVICES MINISTRY OF HEALTH AND FAMILY WELFARE NEW DELHI 100 011, INDIA
INDDHS	DIRECTORATE OF HEALTH SERVICES MINISTRY OF HEALTH AND FAMILY WELFARE NEW DELHI 100 011, INDIA
INDEPH	THE EASTERN PHARMACIST INDIA
IRDAB	NATIONAL DRUGS ADVISORY BOARD 63-64 ADELAIDE ROAD DUBLIN 2, IRELAND
IRDAP	ANIMAL PHARM DUBLIN, IRELAND
IRDDS	THE IRISH MEDICINES BOARD DUBLIN, IRELAND
IRLCN	THE IRISH MEDICINES BOARD DUBLIN, IRELAND www.imb.ie
IRLPSI	PHARMACEUTICAL SOCIETY OF IRELAND DUBLIN, IRELAND www.pharmaceuticalsociety.ie
IRQMH	STATE COOPERATION FOR DRUGS AND MEDICAL EQUIPMENT MINISTRY OF HEALTH BAGHDAD, IRAQ
ISLCP	COMMITTEE ON PHARMACEUTICALS REYKJAVIK ICELAND
ISLSCP	STATE COMMITTEE ON PHARMACEUTICALS REYKJAVIK, ICELAND
ISRDB	MINISTRY OF HEALTH JERUSALEM ISRAEL
ISRMDR	MINISTRY OF HEALTH JERUSALEM, ISRAEL www.ogs.com
ITADMS	DECREE OF THE MINISTERO DELLA SANITA ROME, ITALY
ITAMD	MINISTRY OF HEALTH

List of references cited in the regulatory text

VIALE DELLA CIVILTA ROMANA, 7
ROME, I - 00144
ITALY

JAMMHS MINISTRY OF HEALTH
STANDARDS AND REGULATION
KINGSTON, JAMAICA

JORF JOURNAL OFFICIEL DE LA REPUBLIQUE FRANCAISE
PARIS, FRANCE

JORMH MINISTRY OF HEALTH
P.O. BOX 86
AMMAN, JORDAN

JORPCC PHARMACOVIGILANCE CENTRE
FOOD AND DRUG ADMINISTRATION
MINISTRY OF HEALTH
AMMAN, JORDAN

JPNARD PHARMACEUTICAL AFFAIRS BUREAU
MINISTRY OF HEALTH AND WELFARE
TOKYO, JAPAN

JPNMHC MINISTRY OF HEALTH AND WELFARE
TOKYO, JAPAN

JPNPAC MINISTRY OF HEALTH AND WELFARE
TOKYO, JAPAN

JPNPH PHARMA JAPAN
TOKYO, JAPAN

JPNPMB PHARMACEUTICAL AND MEDICAL SAFETY BUREAU
MINISTRY OF HEALTH AND WELFARE
TOKYO, JAPAN

JPNSWP SCRIP WORLD PHARMACEUTICAL NEWS
LONDON, UNITED KINGDOM
www.pjbpubs.com/scrip

KRMHSA MINISTRY OF HEALTH AND SOCIAL AFFAIRS
SEOUL, REPUBLIC OF KOREA

KTMD MINISTRY OF HEALTH
P. O. BOX 5
SAFAT, KUWAIT

LANCET THE LANCET
32 JAMESTOWN ROAD
LONDON, NW1 7BY
UNITED KINGDOM

LBNMHD MINISTRY OF HEALTH AND SOCIAL AFFAIRS
BEIRUT, LEBANON

List of references cited in the regulatory text

LIYRL	GENERAL PEOPLE'S HEALTH COMMITTEE TRIPOLI, LIBYA
LJJ	JOHNSON & JOHNSON NEW BRUNSWICK, NJ 08902 UNITED STATES
LKADES	MINISTRY OF HEALTH COLOMBO, SRI LANKA
LKADIB	UNIVERSITY OF PERADENIYA MINISTRY OF HEALTH COLOMBO, SRI LANKA
LKAGAZ	THE GAZETTE OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA (EXTRAORDINARY) COLOMBO, SRI LANKA
LTHCW	DECISION OF MEDICINE REGISTRATION CENTRE MINISTRY OF HEALTH VILNIUS 2600, LITHUANIA
LTHMCA	STATE MEDICINES CONTROL AGENCY GEDIMINO AVE. 27 VILNIUS 2600, LITHUANIA
LTHPHB	STATE MEDICINES CONTROL AGENCY GEDIMINO AVE. 27 VILNIUS 2600, LITHUANIA
MARDMP	DIRECTORATE OF MEDICINES AND PHARMACY MINISTRY OF HEALTH RABAT, MOROCCO
MEXMH	MINISTRY OF HEALTH MEXICO CITY, MEXICO
MPPHD	PHARMACY & POISONS (PROHIBITIONS OF HARMFUL DRUGS) REGULATIONS MINISTRY OF HEALTH PORT LOUIS, MAURITIUS
MUSCW	MINISTRY OF HEALTH PORT LOUIS, MAURITIUS
MUSMHQ	MINISTRY OF HEALTH AND QUALITY OF LIFE PORT LOUIS, MAURITIUS
MYSCW	DRUG CONTROL AUTHORITY MINISTRY OF HEALTH KUALA LUMPUR, MAYLAYSIA

List of references cited in the regulatory text

MYSDC MALAYSIAN DRUG CONTROL AUTHORITY
MINISTRY OF HEALTH
KUALA LUMPUR 5300
MALAYSIA

MYSDI DRUG CONTROL AUTHORITY
MINISTRY OF HEALTH
KUALA LUMPUR, MAYLAYSIA

MYSDN BERITA UBAT-UBATAN (DRUG NEWSLETTER)
DRUG CONTROL AUTHORITY
PETALING JAYA
MALAYSIA

MYSNL DRUG CONTROL AUTHORITY
MINISTRY OF HEALTH
KUALA LUMPUR, MAYLAYSIA

MYSPR MINISTRY OF HEALTH
PAHANG ROAD
KUALA LUMPUR 5300
MALAYSIA

NEJOM NEW ENGLAND JOURNAL OF MEDICINE
WALTHAM, MA 02451-1411
UNITED STATES

NETJAN NEDERLANDS TIJDSCHRIFT VOOR GENEESKUNDE
POSTBUS 13079
3507 LB UTRECHT, NETHERLANDS

NGAPN PHARMANEWS
LAGOS, NIGERIA

NLDMEB MEDICINES EVALUATION BOARD
MINISTRY OF HEALTH
AMSTERDAM, NETHERLANDS
www.cbg-meb.nl/uk/nieuws

NNSLM "NYTT FRA STATENS LEGEMIDDELKONTROLL"
(NEWS FROM THE NATIONAL CENTRE FOR
MEDICINAL PRODUCTS CONTROL")
STATENS LEGEMIDDELKONTROLL
SVEN OFTEDALS VEI 6
OSLO 9, NORWAY

NORMCA NORWEGIAN MEDICINES CONTROL AUTHORITY
OSLO, NORWAY

NORNL OSLO, NORWAY

NPHWB PHARMACEUTISCH WEEKBLAD
DE ERVEN BOHN B.V.
AMSTERDAM, POSTBUS 10697
NETHERLANDS

List of references cited in the regulatory text

NPLDDA DEPARTMENT OF DRUG ADMINISTRATION
KATHMANDU, NEPAL

NPLGZ KATHMANDU, NEPAL

NZCSL "CLINICAL SERVICES LETTER"
DEPARTMENT OF HEALTH
P.O. BOX 5013
WELLINGTON, NEW ZEALAND

NZLPU MINISTRY OF HEALTH
WELLINGTON, NEW ZEALAND

NZLTN MINISTRY OF HEALTH
WELLINGTON, NEW ZEALAND

OMNCR MINISTRY OF HEALTH
MUSCAT, OMAN

OMNDGP DIRECTORATE GENERAL OF PHAMACEUTICAL AFFAIRS
MINISTRY OF HEALTH
MUSCAT, OMAN

OMNDI DRUG INFORMATION
MINISTRY OF HEALTH
MUSCAT, OMAN

OMNMH OMAN MINISTRY OF HEALTH
P.O. BOX 393
MUSCAT, SULTANATE OF OMAN

OMNPN MINISTRY OF HEALTH
MUSCAT, OMAN

PAKDI MINISTRY OF HEALTH
ISLAMABAD, PAKISTAN

PAKMH MINISTRY OF HEALTH, SPECIAL EDUCATION AND SOCIAL WELFARE
ISLAMABAD, PAKISTAN

PANMR MINISTRY OF HEALTH
PANAMA

PERDGM DIRECCIÒN GENERAL DE MEDICAMENTOS, INSUMOS Y DROGAS
MINISTRY OF HEALTH
LIMA, PERU

PERMH MINISTRY OF HEALTH
LIMA, PERU

PHADO FOOD AND DRUG ADMINISTRATION
MINISTRY OF HEALTH
MANILA, PHILIPPINES

List of references cited in the regulatory text

PHLCTW DEPARTMENT OF HEALTH AND BUREAU OF FOOD AND DRUGS
MANILA, PHILIPPINES

PRTIFM MINISTERIO DA SAUDE
INSTITUTO NACIONAL DA FARMACIA E DO MEDICAMENTO (INFARMED)
LISBON, PORTUGAL

PRTMH MINISTRY OF HEALTH
LISBON, PORTUGAL

PRTOC MINISTERIO DA SAUDE
INSTITUTO NACIONAL DA FARMACIA E DO MEDICAMENTO
LISBON, PORTUGAL

PRTRAC PURTUGUESE REGULATORY AGENCY (INRARMED)
LISBON, PORTUGAL

SANOFI LETTER TO REGULATORY AGENCIES
SANOFI-SYNTHELABO
PARIS, FRANCE

SAUCW MINISTRY OF HEALTH
SAUDI ARABIA

SGPCW NATIONAL PHARMACEUTICAL ADMINISTRATION
MINISTRY OF HEALTH
SINGAPORE

SGPHSA HEALTH SCIENCES AUTHORITY
SINGAPOR

SGPMA THE MEDICINES ACT (CHAPTER 176)
THE MEDICINES (LABELLING OF ASPIRIN PRODUCTS) REGULATIONS 1987
VOL.MH.(HQ) 36:26/1 VOL.3, AG/SL/31/84 PT.
SINGAPORE NATIONAL PRINTERS LTD (GOVERNMENT PRINTERS)
SINGAPORE

SGPPR HEALTH SCIENCES AUTHORITY
SINGAPORE

SGPRD THE SALE OF DRUGS (PROHIBITED DRUGS) REGULATIONS
SINGAPORE

SLVCW MINISTRY OF HEALTH
BRATISLAVA, SLOVAK REPUBLIC

SPCNR NEW RELEASE
SCHERING-PLOUGH CORPORATION
KENILWORTH, NJ 07033-0530
UNITED STATES

SSLMS INFORMATION FRAN SOCIALSTYRELSENS LAKEMEDELSAVDELNING
STOCKHOLM, SWEDEN

List of references cited in the regulatory text

SWEFSL FARMACEUTISKA SPECIALITETER I SVERIGE. LKEMEDELSINFORMATION AB
STOCKHOLM, SWEDEN

SWEILS INFORMATION FRN LKEMEDELSVERKET
STOCKHOLM, SWEDEN

SWEMPA LÄKEMEDELSVERKET
(MEDICAL PRODUCTS AGENCY)
STOCKHOLM, SWEDEN

SYRAFD SUPRIM TECHNICAL COMMITTEE
MINISTRY OF HEALTH
DAMASCUS, SYRIA

THACW MINISTRY OF PUBLIC HEALTH
TIWANOND ROAD
NONTHAMBURI 11000, THAILAND

THAFDA FOOD AND DRUG ADMINISTRATION
MINISTRY OF HEALTH
TIWANOND ROAD
NONTHAMBURI 11000, THAILAND

THAMH MINISTRY OF PUBLIC HEALTH
TIWANOND ROAD
NONTHAMBURI 11000, THAILAND

TURCW GENERAL DIRECTORATE OF PHARMACEUTICALS AND PHARMACY
MINISTRY OF HEALTH
ANKARA, TURKEY

TURDPC DIVISION OF PAHARMACOVIGILANCE
MINISTRY OF HEALTH
ANKARA, TURKEY

TURMH MINISTRY OF HEALTH
ANKARA, TURKEY

UAECW MINISTRY OF HEALTH
ABU DHABI
UNITED ARAB EMIRATES

UAEDIB MINISTRY OF HEALTH
ABU DHABI
UNITED ARAB EMIRATES

UAEMD MINISTRY OF HEALTH
ABU DHABI
UNITED ARAB EMIRATES

UGLAAD UGESKRIFT FOR LAEGER
UDGIVET AF DEN ALMINDELIGE DANSKE LAEGEFORENING
KRISTIANIAGADE 12A
COPENHAGEN DK-2100, DENMARK

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UNCPS UNITED NATIONS TREATY SERIES
UNITED NATIONS SECRETARIAT
NEW YORK, NY. 10017, USA

UNSND SINGLE CONVENTION ON NARCOTIC DRUGS 1961
(UNITED NATIONS TREATY SERIES VOL. 520, E/CONF.34/22)
AS AMENDED BY THE 1972 PROTOCOL (E/CONF.63/7-8, E.77.XI.3)
UNITED NATIONS SECRETARIAT
NEW YORK, NY 10017, USA

URTMH PHARMACY BOARD
MINISTRY OF HEALTH
DAR-ES-SALAM, TANZANIA

USADAC FOOD AND DRUG ADMINISTRATION
WASHINGTON D.C., USA

USADDL (www.fda.gov/medwatch/safety/1998)
FOOD AND DRUG ADMINISTRATION
WASHINGTON D.C., USA

USADHP BAYER PHARMACEUTICAL DIVISION
www.fda.gov/medwatch

USADIZ DRUG INFO ZONE
www.druginfozone.nhs.uk

USAMDR FOOD AND DRUG ADMINISTRATION
WASHINGTON D.C.
USA
www.fda.gov

USAMSA MEDWATCH SAFETY ALERT
www.fda.gov/medwatch

USAOPA OFFICE OF PUBLIC AFFAIRS
CALIFORNIA
DEPARTMENT OF HEALTH SERVICES
www.fda.gov

USAPHA FOOD AND DRUG ADMINISTRATION
WASHINGTON, D.C.
USA
www.fda.gov

USARLI ROXANE LABORATORIES INC.
www.fda.gov

VTNMHD MINISTRY OF HEALTH
DRUG ADMINISTRATION
VIET NAM

WHOCON WORLD HEALTH ORGANIZATION
1211 GENEVA 27, SWITZERLAND

List of references cited in the regulatory text

WHODI
WORLD HEALTH ORGANIZATION
1211 GENEVA 27, SWITZERLAND

WHODIB
WORLD HEALTH ORGANIZATION
1211, GENEVA 27, SWITZERLAND

WHORUD
THE RATIONAL USE OF DRUGS
WORLD HEALTH ORGANIZATION
1211 GENEVA 27, SWITZERLAND

WHTAC
TECHNICAL REPORT SERIES
WORLD HEALTH ORGANIZATION
1211 GENEVA 27, SWITZERLAND

WIMAM
WICHTIGE MITTEILUNG UBER ARZNEIMITTEL 1984
BUNDESMINISTERIUM FUR GESUNDHEIT
UND UMWELTSCHUTZ
GRUPPE PHARMAZIE
LANDSTRASSE HAUPTSTRASSE 55-57
1030 WIEN, AUSTRIA

YEMCW
MINISTRY OF PUBLIC HEALTH
SANA'A, REPUBLIC OF YEMEN

ZAFMCC
MEDICINES CONTROL COUNCIL
MINISTRY OF HEALTH
PRETORIA 0001, SOUTH AFRICA

ZAFPS
MINISTRY OF HEALTH
PRETORIA 0001, SOUTH AFRICA

ZMBSI
STATUTORY INSTRUMENT
MINISTRY OF HEALTH
LUSAKA, ZAMBIA

ZWDCC
NEWS BULLETIN
DRUGS CONTROL COUNCIL
HARARE, ZIMBABWE

ZWEDIB
MINISTRY OF HEALTH
HARARE, ZIMBABWE

ZWESI
STATUTORY INSTRUMENT
MINISTRY OF HEALTH
HARARE, ZIMBABWE

Annex IV

Questionnaire

Dear Reader,

Both the Economic and Social Council and the General Assembly of the United Nations have expressed interest in ascertaining the use which is being made of the Consolidated List. They have also requested that the Secretariat keep the format of the List under continuing review. The present questionnaire has been prepared with a view to obtaining this information, which will be reported to the Economic and Social Council and the General Assembly; comments regarding the format of the List will be taken into account in the preparation of future editions.

Please mail the questionnaire as soon as possible to: United Nations Secretariat, DESA/DESC/EICB, One United Nations Plaza, Room DC1-1438, New York, NY 10017, United States of America.

Name and address of ministry/organization/institution/company/university:

_____

_____

_____

_____

A. In what capacity do you use the Consolidated List?

Government:

___ Regulator ___ Customs enforcement ___ Policy maker

Other:

___ Academic ___ Media

___ International organization ___ NGO/public intersecretariat group

___ Manufacturer ___ Other: _____

B. For which category of products have you used the List?

___ Agricultural chemicals ___ Industrial chemicals

___ Consumer products

C. 1. Has the information provided in the List prompted any action on your part?

___ Yes ___ No

If "yes" please describe the nature of this action either in general terms or in relation to specific products.

_____

_____

2. What is the nature of this action? (Information on the following points is particularly requested from national regulatory authorities)

___ Review of licensing provisions for chemical products

___ Review of regulations for already regulated products

___ Review of enforcement of laws and regulations

___ Regulation of previously unregulated products

___ Meeting with manufacturers/distributors

___ Other actions (please describe)

_____

_____

_____

_____

_____

D. Are you aware of any additional products or restrictive regulatory actions that should be included in the List?

___ Yes **___ No**

If "yes" please specify or attach a copy of any such regulation.

_____

_____

_____

_____

_____

E. Are you aware of any additional trade and manufacturing data that should be included in the List?

___ Yes **___ No**

If "yes" please specify.

_____

_____

_____

_____

_____

F. **Do you find the following items of information useful?**

	Yes	No
Product category listing	___	___
CAS numbers	___	___
Synonyms	___	___
Date of decision	___	___
Citation of national regulations/decisions	___	___
Trade names/manufacturer information	___	___
WHO comment	___	___
Bibliographic references	___	___

G. **Which other sources do you use to obtain information on banned and severely restricted products?**

_____

_____

_____

_____

H. ***Would you be interested in and have the facilities to obtain on-line access to the List?***

____ Yes **____ No**

I. ***What are your suggestions regarding the use of the List?***

_____

_____

_____

_____

J. ***What are your suggestions regarding the preparation of the List?***

_____

_____

_____

_____

K. ***Do you have any other comments?***

_____

_____

_____

_____

Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments

A unique list of restrictive regulatory actions taken by one hundred fifteen Governments on over eleven hundred pharmaceuticals and agricultural and industrial chemicals, as well as consumer products.

This comprehensive and informative book was produced in response to General Assembly resolutions aimed at protecting the world against products harmful to health and the environment.

Now updated and printed annually with an ever-expanding coverage of countries and products.

According to the previously determined schedule, yearly focus alternates between pharmaceuticals and chemicals. The current issue is entirely devoted to chemicals.