



Torisel----Finished and Packaged Product

Preparation Date 21-Nov-2008

Revision Date 22-Jan-2010***

Revision Number 1.1***

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Torisel----Finished and Packaged Product
Common Name Not available
Chemical Name Not applicable
Synonyms Temsirolimus, CCI-779, Torisel
Product Use Pharmaceutical product
Classification Cytostatic Agent Anti-Inflammatory Agent

Supplier Wyeth
P.O. Box 8299
Philadelphia, PA 19101 USA.
Telephone: 1-610-688-4400

Emergency Telephone Number Chemtrec USA, Puerto Rico, Canada 1-800-424-9300
Chemtrec International 1-703-527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview

Hazards listed below and in Section 8 apply only to contact with free liquid and not during the handling of intact vials and syringes.

Appearance Pharmaceutical Liquid **Physical State** Liquid **Odor** Slight Alcohol odor

Potential Physical Hazards Flammable liquid

Potential Health Effects

Eyes Irritating to eyes
Skin Prolonged skin contact may defat the skin and produce dermatitis
Inhalation May cause mucous membrane and upper respiratory tract irritation
Ingestion Not available
Other The most common effects may include anemia weakness hyperglycemia shortness of breath hypophosphatemia headache diarrhea vomiting dizziness Herpes simplex rash drowsiness taste perversion mouth sores nausea irritation difficulty breathing symptoms of drunkenness sore throat and urticaria

Possible development of immunosuppression.

May impair fertility May cause harm to the unborn child.

Therapeutic Target Organ(s) Please see Patient Package Insert for further information.
Systemic

Ethanol listed by NTP and IARC

Potential Environmental Effects See Section 12

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Common Name | CAS-No | Composition |
|------------------|-------------|-------------|
| Temsirolimus | 162635-04-3 | 25 mg/ml |
| Propylene Glycol | 57-55-6 | 56-60% |
| Ethanol | 64-17-5 | 39.45% |
| dl-a-Tocopherol | 59-02-9 | 1% < |

4. FIRST AID MEASURES

| | |
|---------------------|---|
| Eye Contact | In case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice |
| Skin Contact | Wash off with soap and plenty of water |
| Inhalation | Artificial respiration and/or oxygen may be necessary |
| Ingestion | Immediate medical attention is not required |
| Other | Participate in a medical surveillance program if working directly with this product |

5. FIRE-FIGHTING MEASURES

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| Flammable Properties | Flammable liquid. Vapors may cause flash fire or explosion.. |
| Extinguishing Media | |
| Suitable Extinguishing Media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide |
| Unsuitable Extinguishing Media | Do not use a solid water stream as it may scatter and spread fire |
| Fire Fighting | Evacuate area and fight fire from a safe distance |
| Hazardous Combustion Products | Hazardous Combustion Products |
| Protective Equipment and Precautions for Firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| Other Information | Flammability Class (OSHA): IA |

6. ACCIDENTAL RELEASE MEASURES

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|----------------------------------|--|
| Personal Precautions | Safety glasses or goggles when splash potential exists |
| Environmental Precautions | Local authorities should be advised if a significant spill cannot be contained |
| Methods for Containment | Not available |
| Methods for Cleaning up | Take up mechanically and collect in suitable container for disposal |

7. HANDLING AND STORAGE

| | |
|-----------------|---|
| Handling | Restrict access to work area. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. |
| Storage | Keep container tightly closed |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to available public information for specific member state Occupational Exposure Limits.

| | |
|---|---|
| Temsirolimus Pfizer Occupational Exposure Band (OEB): | OEB5 (control exposure to <1ug/m ³) |
| Ethanol Exposure Guideline: | 1900 mg/m ³ |
| Engineering Controls | Engineering controls should be used as the primary means to control exposures. General room ventilations is adequate unless the process generates dusts mists, fumes, or vapors. Keep airborne contamination levels below the exposure limits listed above in this section. |
| Personal Protective Equipment | |
| Eye/face Protection | Wear safety glasses or goggles if eye contact is possible. |
| Skin Protection | Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations. |
| Respiratory Protection | If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. |
| General Hygiene Considerations | Avoid contact with skin, eyes and clothing Conduct a task-specific risk assessment prior to authorizing work with this product Consult a health and safety professional for specific PPE, respirator and risk assessment guidance |
| Other | Limit access to only personnel trained in the safe handling of this material |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--|-----------------------|-------------------------|---------------------|
| Appearance | Pharmaceutical Liquid | Physical State | Liquid |
| Color | Clear | Odor | Slight Alcohol odor |
| Odor Threshold | Not available | | |
| pH | Not applicable | | |
| Specific Gravity | 0.9237g/ml | Water Solubility | Poorly soluble |
| Solubility | Not applicable | Evaporation Rate | Not applicable |
| Partition Coefficient (n-octanol/water) | Not available | Vapor Pressure | Not applicable |

| | | | |
|-----------------------------------|----------------------------|---------------------------------|---------------|
| Boiling Point | 93 °C | Autoignition Temperature | Not available |
| Flash Point | 21.1°C | Method | None |
| Melting Point | Not available | | |
| Flammability Limits in Air | Upper Not available | Lower Not available | |
| Upper Not available | Lower Not available | | |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Stable at room temperature. |
| Conditions to Avoid | No data available |
| Materials to Avoid | No materials to be especially mentioned |
| Hazardous Decomposition Products | None under normal use. |
| Possibility of Hazardous Reactions | None under normal use. |

11. TOXICOLOGICAL INFORMATION

Temsirolimus

| | |
|--------------------------------|--------------------------------------|
| LD50 Oral | > 100 mg/kg rats > 100 mg/kg mice |
| Acute Dermal Irritation | No data available |
| Primary Eye Irritation | No data available |
| Sensitization | No data available |

Ethanol

| | |
|--------------------------------|--|
| LD50 Oral | 3450 mg/kg mice 7060 mg/kg rats |
| Acute Dermal Irritation | Moderate irritation effect in rabbits. |
| Primary Eye Irritation | Severely irritating to rabbit eyes. |
| Sensitization | Not applicable |

Multiple Dose Toxicity

Temsirolimus

| | |
|---|--|
| No Toxicologic Effect Dose/Species/Study Length: | The acute and chronic toxicity has been evaluated in mice, rats and monkeys. No compound-related mortality was observed in mice or rats. Compound-related effects observed in rats and monkeys included thymic and/or lymphoid atrophy, blood effects, and changes in male reproductive organs. In rats only, the following compound-related effects were observed: blood effects, hyperglycemia, cataracts, pancreatic effects, bone marrow effects, changes in female reproductive organs, and increased numbers of pulmonary alveolar macrophages. In monkeys only, colitis and chronic diarrhea were observed. |
|---|--|

Ethanol

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| No Toxicologic Effect Dose/Species/Study Length: | Repeated contact can dry the skin with cracking, peeling, and itching. Repeated high exposure may affect the liver and nervous system. |
|---|--|

Maximum Tolerated Dose (MTD), Oral

Temsirolimus

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|-------------------------------|--|
| Carcinogenicity | No data available |
| Genetic Toxicity | No evidence of mutagenicity was observed in a battery of <i>in vitro</i> and <i>in vivo</i> assays. |
| Reproductive Toxicity | Studies were found to adversely affect male, but not female, fertility in rats causing decreased sperm counts, sperm mobility, hypospermia, decreased reproductive organ weights, testicular tubular degeneration, and prostate atrophy. |
| Developmental Toxicity | Developmental studies in rats and rabbits have shown embryo/fetal mortality, decreased fetal growth and increased incidence of intestinal protrusion through the abdomen in rabbits. |

Ethanol

| | |
|-------------------------------|--|
| Carcinogenicity | No data available |
| Genetic Toxicity | May cause genetic changes. |
| Reproductive Toxicity | See Developmental Toxicity. |
| Developmental Toxicity | Repeated exposure may cause spontaneous abortions, as well as birth defects and other developmental problems (fetal alcohol syndrome). |

Temsirolimus

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|------------------------------------|-------------------|
| Target Organ(s) of Toxicity | No data available |
|------------------------------------|-------------------|

Ethanol

| | |
|------------------------------------|-------------------|
| Target Organ(s) of Toxicity | No data available |
|------------------------------------|-------------------|

12. ECOLOGICAL INFORMATION

The following effects are based on the Active Pharmaceutical Ingredient.

Chemical Fate Information Not available

Temsirolimus

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|---------------------------|---|
| Mobility | Not available |
| Biodegradability | Not available |
| Stability in Water | Slowly hydrolyzes at neutral pH, with an increasing rate as pH increases. |
| Bioaccumulation | Not available |

Ecotoxicity

Not available

Temsirolimus

| | |
|-----------------------|---|
| Microorganisms | EC50 > Aqueous solubility limit |
| Algae | EC50/72h/algae = 0.063 mg/l, NOEC = 0.015 mg/l |
| Daphnia | EC50/48h/daphnia > Aqueous solubility limit |
| Fish | LC50/96h/Fathead minnows > Aqueous solubility limit |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

This material is regulated for transportation as a hazardous material/dangerous goods.

Proper Shipping Name: Flammable liquid, n.o.s. (ethanol)
Identification Number: UN 1993
Hazard Class: 3
Packing Group: II
Flashpoint: 21 °C

Exceptions: For small quantities packed in combination packaging [limited to inner packaging <= 1.0L*** and outer packaging <= 30 kg (66 lb.) gross weight], the following will apply. In addition, see "excepted quantity" provisions if applicable.***

Note: If your commodity meets the definition of a limited quantity and is packaged for retail sale, it may be considered a **Consumer Commodity** and excepted from additional requirements as applicable.

U.S. Department of Transport (DOT)

Proper Shipping Name Consumer Commodity
Hazard Class ORM-D

International Air Transport Association (IATA)

Proper Shipping Name Consumer Commodity
Hazard Class 9
UN-No ID 8000
Packing Group Not applicable

International Maritime Dangerous Goods (IMDG)

Proper Shipping Name Flammable liquid, n.o.s (ethanol), Ltd. Qty.
Hazard Class 3
UN-No UN 1993
Packing Group II
Flashpoint: 21 °C

Transport of Dangerous Goods by Road (ADR)

Proper Shipping Name Flammable liquid, n.o.s (ethanol), Ltd. Qty.
Hazard Class 3
UN-No UN 1993
Packing Group II

15. REGULATORY INFORMATION

USA

Federal Regulations

OSHA Regulatory Status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

| | |
|-----------------------------------|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

This product does not contain any HAPs.

State Regulations

California Proposition 65

Ethyl alcohol (ethanol) is listed.

Canada

Not classified

WHMIS Hazard Class

Non-controlled

European Union

In accordance with EC directives or respective national laws, the product does not need to be classified nor labeled.

16. OTHER INFORMATION

| | |
|---------------------------|---|
| Prepared By | Wyeth Department of Environment, Health & Safety |
| Format | This MSDS was prepared in accordance with ANSI Z400.1-2004. |
| List of References | See Patient Package Insert for more information. |
| Revision Summary | Changes to Section 7, 8, 14 |

Disclaimer:

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End of MSDS