

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006

#### Degesch Plate/ Degesch Strip

Print date: 26.03.2012

Product code: 45

Page 1 of 8

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier

Degesch Plate/ Degesch Strip

Relevant identified uses of the substance or mixture and uses advised againstUse of the substance/mixture

Plant protection product

Details of the supplier of the safety data sheet

Company name: Detia Freyberg GmbH  
 Street: Dr.-Werner-Freyberg-StraÙe 11  
 Place: D-D-69514 Laudenbach  
 Telephone: 06201-708-0  
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Emergency telephone: Giftinformationszentrum (GIZ) Universitatsklinikum Mainz Tel.: 06131-19240**SECTION 2: Hazards identification**Classification of the substance or mixture

Indications of danger : Highly flammable, Very toxic, Harmful, Dangerous for the environment

R-phrases:

Contact with water liberates extremely flammable gases.

Harmful in contact with skin.

Very toxic by inhalation and if swallowed.

Very toxic to aquatic organisms.

developed with humidity, gaseous phosphine

GHS classification

Hazard categories:

Substance or mixture which in contact with water emits flammable gas: Water-react. 1

Acute toxicity: Acute Tox. 1

Acute toxicity: Acute Tox. 2

Acute toxicity: Acute Tox. 4

Hazardous to the aquatic environment: Aquatic Acute 1

Hazard Statements:

In contact with water releases flammable gases which may ignite spontaneously.

Fatal if swallowed.

Fatal if inhaled.

Toxic in contact with skin.

Very toxic to aquatic life.

Label elements

Signal word:

Danger

Pictograms:

GHS02-GHS06-GHS09

**Hazardous components which must be listed on the label**  
magnesium phosphide; trimagnesium diphosphideHazard statements

H260

In contact with water releases flammable gases which may ignite spontaneously.

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006

### Degesch Plate/ Degesch Strip

Print date: 26.03.2012

Product code: 45

Page 2 of 8

H300	Fatal if swallowed.
H330	Fatal if inhaled.
H311	Toxic in contact with skin.
H400	Very toxic to aquatic life.

#### Precautionary statements

P501	Dispose of contents/container to pollutant collection .
P405	Store locked up.
P402+P404	Store in a dry place. Store in a closed container.
P370+P378	In case of fire: Use CO <sub>2</sub> , sand, extinguishing powder for extinction.
P335	Brush off loose particles from skin.
P321	Specific treatment (see first Aid on this label).
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P280	Wear Gants de protection / des vêtements de protection / protection pour les yeux / du visage.
P273	Avoid release to the environment.
P234	Keep only in original container.
P232	Protect from moisture.
P223	Keep awayfrom anypossible contact with water, because of violent reaction and possible flash fire.

#### Special labelling of certain mixtures

EUH029	Contact with water liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.

#### Other hazards

Substances or mixtures which, in contact with water emit flammable gases: Phosphine developed with humidity, gaseous phosphine

### SECTION 3: Composition/information on ingredients

#### Mixtures

##### Hazardous components

EC No.	Chemical name	Quantity
CAS No.	Classification	
Index No.	GHS classification	
REACH No.		
235-023-7	magnesium phosphide; trimagnesium diphosphide	56 %
12057-74-8	F, T+, Xn, N R15-21-26-28-29-50	
	Water-react. 1, Acute Tox. 1, Acute Tox. 2, Acute Tox. 3, Aquatic Acute 1; H260 H330 H300 H311 H400	

Full text of R- and H-phrases: see section 16.

### SECTION 4: First aid measures

#### Description of first aid measures

##### General information

First aid assistant: Pay attention to self-protection! Move victim out of danger zone.

##### After inhalation

Provide fresh air.  
in case of headache, dizziness, feeling of constriction, difficult breathing and nausea immediately leave the danger zone immediately and seek fresh air; consult a physician; inhale products for acute treatment following exposition of smoke gas (eg a beclometasone (Ventolair®) spray).

##### After contact with skin

remove any rests by brushing; only then use water for cleansing Change contaminated clothing.

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006

### Degesch Plate/ Degesch Strip

Print date: 26.03.2012

Product code: 45

Page 3 of 8

Medical treatment necessary.

**After contact with eyes**

remove rests of preparation with fluff-free cloth; rinse with plenty of water and apply eye drops only after no more powdery residues are visible.

**After ingestion**

Never give anything by mouth to an unconscious person or a person with cramps. Rinse mouth immediately and drink large quantities of water. Make affected person vomit if conscious. Immediately get medical attention.

**Most important symptoms and effects, both acute and delayed**

Headache, dizziness, anxiety, difficulty breathing and nausea

**Indication of any immediate medical attention and special treatment needed**

If unconscious, call emergency physician. Special aids required for First Aid measures: have methyl prednisolon (application by physician) and products for acute treatment following exposition of smoke gas (eg a beclometasone (Ventolair®) spray) available.

### SECTION 5: Firefighting measures

**Extinguishing media****Suitable extinguishing media**

D powder. Dry sand. Cement.

**Extinguishing media which must not be used for safety reasons**

Water. Foam.

**Special hazards arising from the substance or mixture**

Combustible. Vapours may form explosive mixtures with air. Risk of selfignition.

**Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eye and clothing. Wear personal protection equipment.

**Environmental precautions**

Do not empty into drains or the aquatic environment. Explosion hazard.

**Methods and material for containment and cleaning up**

Pick up carefully when dry. Treat the assimilated material according to the section on waste disposal.

### SECTION 7: Handling and storage

**Precautions for safe handling****Advice on safe handling**

In case of open handling equipment with built-in suction must be used. Do not breathe dust. Avoid contact with water. Never add water to this product.

**Advice on protection against fire and explosion**

Hold respiratory equipment ready. Keep away from water and acid. Keep away from sources of ignition  
- No smoking.

**Further information on handling**

Hold respiratory equipment ready. Keep away from water and acid.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container dry. Keep container tightly closed. Keep locked up. Store in a place accessible only to

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006

### Degesch Plate/ Degesch Strip

Print date: 26.03.2012

Product code: 45

Page 4 of 8

authorized persons. Keep container in a well-ventilated place.

**Advice on storage compatibility**

Keep the packing dry and well sealed to prevent contamination and absorption of dampness.

**Further information on storage conditions**

Keep locked up and out of the reach of children.

**Specific end use(s)**

Refer to chapter 8.

### SECTION 8: Exposure controls/personal protection

**Control parameters****Exposure limits (EH40)**

CAS No.	Chemical name	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
12057-74-8	magnesium phosphide; trimagnesium diphosphide	0,1	0,14		TWA (8 h) STEL (15 min)	

**Additional advice on limit values**

Odour threshold for hydrogen phosphide: 0.02 up to 3 ppm, depending on the sensitivity 1b) Apply to TRGS 402

**Exposure controls****Occupational exposure controls**

In case of open handling equipment with built-in suction must be used. Do not breathe dust.

**Protective and hygiene measures**

Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

**Respiratory protection**

respiratory equipment according to DIN EN 141, Type B, code colour grey

**Hand protection**

suitable gloves for example Nitril and Latex gloves (AQL: 1.5) tested according to EN- 374-2 and EN374- 3

**Eye protection**

wear safety goggles according to EN 166:2001.

**Skin protection**

suitable protective clothing according to BGR 189 (ATL: "Rules for the use of protective clothing")

**Environmental exposure controls**

See Section 6 and 7

### SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

Physical state: solid. developed with humidity, gaseous phosphine  
Colour: grey.Paper:orange  
Odour: garlic-like

**Test method**

pH-Value: -

**Changes in the physical state**

Melting point: &gt; 500(Phosphine) °C

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006

**Degesch Plate/ Degesch Strip**

Print date: 26.03.2012

Product code: 45

Page 5 of 8

Boiling point:	Test not required.
Sublimation point:	Test not required.
Vapour pressure: (at 20 °C)	34,6 hPa
Density:	1,47 (Phosphine) g/cm <sup>3</sup>
Water solubility:	Test not required.

**SECTION 10: Stability and reactivity****Reactivity**

In contact with water, a toxic and extremely flammable gas is developed. In contact with acids, a very toxic gas is developed.

**Chemical stability**

The product is stable under inert gas.

**Possibility of hazardous reactions**

In contact with atmospheric moisture, highly toxic phosphine is developed. Uncontrolled development of hydrogen phosphide can cause fires.

**Conditions to avoid**

see section 7

**Incompatible materials**

Protect against: moisture. Never add water to this product. Keep away from: Material, rich in oxygen, oxidizing.

**Hazardous decomposition products**

Phosphorus hydride, phosphorus pentoxide, phosphoric acid, see also section 5.3

**SECTION 11: Toxicological information****Information on toxicological effects****Acute toxicity**

Very toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No.	Chemical name						
	Exposure routes	Method	Dose	Species	h	Source	
12057-74-8	magnesium phosphide; trimagnesium diphosphide						
	Acute oral toxicity	LD50	11,2 mg/kg				
	Acute dermal toxicity	LD50	900 mg/kg				

**Irritation and corrosivity**

Preparation not tested.

**Sensitizing effects**

no danger of sensitization.

**Severe effects after repeated or prolonged exposure**

No information available.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on existing data the substance does not fulfill the criteria of CMR-substances Cat. 1 and 2 according 67/548/EEC.

**Additional information on tests**

The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006

**Degesch Plate/ Degesch Strip**

Print date: 26.03.2012

Product code: 45

Page 6 of 8

**SECTION 12: Ecological information****Toxicity**

Very toxic to aquatic organisms.

CAS No.	Chemical name	Method	Dose	Species	h	Source
12057-74-8	magnesium phosphide; trimagnesium diphosphide					
	Acute fish toxicity	LC50	9,7 x 10 <sup>-3</sup> mg		96	
	Acute crustacea toxicity	EC50	0,2 mg/l		48	

**Persistence and degradability**

Decomposes in contact with water.

**Bioaccumulative potential**

log Pow = 0.9 of PH3

**Partition coefficient n-octanol/water**

CAS No.	Chemical name	Log Pow
12057-74-8	magnesium phosphide; trimagnesium diphosphide	0,9

**Mobility in soil**

no

**Results of PBT and vPvB assessment**

This substance does not meet the criteria for classification as PBT or vPvB.

**Further information**

Do not empty into drains or the aquatic environment. The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****Waste treatment methods****Advice on disposal**

Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

**Waste disposal number of waste from residues/unused products**

060316 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 06 03 15

**Waste disposal number of contaminated packaging**

060316 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 06 03 15

**Contaminated packaging**

Avoid contact with water. Waste disposal according to official state regulations.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b><u>UN number:</u></b>	UN2011
<b><u>UN proper shipping name:</u></b>	MAGNESIUM PHOSPHIDE
<b><u>Transport hazard class(es):</u></b>	4.3+6.1
<b><u>Packing group:</u></b>	I
Hazard label:	4.3+6.1



## Safety Data Sheet

according to Regulation (EC) No. 1907/2006

## Degesch Plate/ Degesch Strip

Print date: 26.03.2012

Product code: 45

Page 7 of 8

Classification code: WT2  
Limited quantity: 0  
Transport category: 1  
Tunnel restriction code: E

**Other applicable information (land transport)**

E0  
Mailing: not allowed. Warning board: starting 20 kg net weight

**Inland waterways transport**

**UN proper shipping name:** MAGNESIUM PHOSPHIDE

**Marine transport**

**UN number:** UN2011  
**UN proper shipping name:** MAGNESIUM PHOSPHIDE  
**Transport hazard class(es):** 4.3+6.1  
**Packing group:** I  
Hazard label: 4.3+6.1  
Special Provisions: -  
Limited quantity: 0  
EmS: F-G, S-N

**Other applicable information (marine transport)**

E0

**Air transport**

**UN/ID number:** UN2011  
**UN proper shipping name:** MAGNESIUM PHOSPHIDE  
**Transport hazard class(es):** 4.3+6.1  
**Packing group:** I  
Hazard label: 4.3+6.1  
Limited quantity Passenger: Forbidden  
IATA-packing instructions - Passenger: Forbidden  
IATA-max. quantity - Passenger: Forbidden  
IATA-packing instructions - Cargo: 487  
IATA-max. quantity - Cargo: 15 kg

**Other applicable information (air transport)**

E0  
: Forbidden  
Cargo Aircraft only

**Environmental hazards**

Dangerous for the environment: yes

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

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**SECTION 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 3 - highly water contaminating

**SECTION 16: Other information**

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006

**Degesch Plate/ Degesch Strip**

Print date: 26.03.2012

Product code: 45

Page 8 of 8

**Full text of R-phrases referred to under sections 2 and 3**

- 15 Contact with water liberates extremely flammable gases.
- 21 Harmful in contact with skin.
- 26 Very toxic by inhalation.
- 26/28 Very toxic by inhalation and if swallowed.
- 28 Very toxic if swallowed.
- 29 Contact with water liberates toxic gas.
- 50 Very toxic to aquatic organisms.

**Full text of H-Statements referred to under sections 2 and 3**

- H260 In contact with water releases flammable gases which may ignite spontaneously.
- H300 Fatal if swallowed.
- H311 Toxic in contact with skin.
- H330 Fatal if inhaled.
- H400 Very toxic to aquatic life.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*