SAFETY DATA SHEET  (EC 1907/2006)  
DORMEX

Material no. 132506  
Specification  
VA-Nr  

Version 4.3 / REG_EU  
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Page 1 / 9  

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : DORMEX

Company : AlzChem Trostberg GmbH
CHEMIEPARK TROSTBERG
Dr.-Albert-Frank-Str. 32
D-83308 Trostberg, Germany

Telephone : +49 (0)8621 86-3351
Telex : +49 (0)8621 86-2880
Email address : alz-pst@degussa.com

Emergency telephone number : +49 (0)2365 49-2232
Emergency telephone number(Telefax) : +49 (0)2365 49-4423

Use of the Substance / Preparation : Agricultural products

2. HAZARDS IDENTIFICATION

Additional safety information for humans and the environment
Classification according to directives(1999/45/EC and 67/548/EEC)
Harmful in contact with skin and if swallowed.
Irritating to eyes and skin.
May cause sensitization by skin contact.
Dangerous for the environment
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Additional hazard information for humans and the environment:
Violent, exothermic reaction with acids, bases and temperatures above 40°C.
Use of alcoholic beverages enhances the toxic effects.
Dermal absorption possible

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
aqueous preparation with cyanamide

Information on ingredients / Hazardous components

- cyanamide; carbamonitril
  CAS-No. 420-04-2
  T; R25
  Xn; R21
  Xi; R36/38
  R43
  EC-No. 206-992-3
  49% - 51%

- orthophosphoric acid
  CAS-No. 7664-38-2
  EC-No. 231-633-2
  < 2%
C; R34

See chapter 16 for text of risk phrases

Other information
The preparation itself has been tested/classified (see items 11 and 15).

4. FIRST AID MEASURES

General advice
If feeling unwell seek medical advice.
after absorbing large amounts of substance:
Immediately contact a doctor or Poisons Information Centre, and follow the advice given.
Show this safety data sheet to the doctor in attendance.

Inhalation
Move to fresh air.
Oxygen or artificial respiration if needed.
Consult a physician after significant exposure.

Skin contact
Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation occurs, call physician.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Keep eye wide open while rinsing.

Ingestion
Rinse out mouth.
Drink 1 or 2 glasses of water.
Do not induce vomiting.
Call a physician immediately.
If conscious and medical aid is not available immediately, induce vomiting. Be sure to keep victim’s head below hips to avoid aspiration of vomitus into the lungs.

Notes to physician
Symptoms:
erthema
nausea
increased pulse frequency,
Fall in blood pressure
feeling of burning,
headache
Irritation of skin and mucous membranes
after the intake of large amounts circulatory depression up to unconsciousness are possible
Caution: Alcoholic beverages interact with cyanamide.
Symptoms showing flush are possible (difficulty in breathing, bright red face).
The symptoms of this interaction disappear rapidly and are generally harmless.

Treatment:
No specific antidote known.
Symptomatic treatment.
After the intake of small amounts: administer activated charcoal, sodium sulfate and much liquid orally.
After the intake of large amounts: monitoring of circulatory functions, if necessary irrigation of the stomach preventing aspiration and taking into account the irritating properties to mucous membranes.
In case of skin irritation, use corticoid containing external preparations.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
carbon dioxide (CO2), dry powder, dry sand, water spray, foam

**Specific hazards during fire fighting**
In the case of fire, the following hazardous smoke fumes may be produced:
ammonia
nitrous gases
Carbon oxides
Hydro-cyanic acid

**Special protective equipment for fire-fighters**
In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

**Further information**
Do not contaminate surface water.
Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment.
Avoid contact with skin, eyes and clothing.
Ensure adequate ventilation.

**Environmental precautions**
Try to prevent the material from entering drains or water courses.

**Methods for cleaning up**
Absorb with liquid-binding material, e. g.: saw dust, sand, universal binder
Sweep up and shovel.
Pour into containers which can be tightly sealed.
Disposal according to local authority regulations.
Then flush with water.

7. HANDLING AND STORAGE

**Handling**

**Safe handling advice**
Do not consume alcoholic beverages during handling cyanamide.
Use only in well-ventilated areas.
Avoid contact with skin, eyes and clothing.
For professional use only.
Handle in accordance with good industrial hygiene and safety practices.

**Advice on protection against fire and explosion**
Keep away from combustible material.
Avoid temperatures above 40°C.
Incompatible with acids and bases.
Storage

Requirements for storage areas and containers
Protect from heat and exposure to direct sunlight
Keep out of the reach of children.
Suitable materials: polypropylene, polyethylene, enamel, Austenitic steel

Further information
Storage capability limited; dependent on Stabilization.

Advice on common storage
Incompatible with acids and bases.
Keep away from food, drink and animal feedingstuffs.

German storage class
8B - non-combustible corrosive substances

Storage stability
< 20 °C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

- cyanamide; carbamonitril
  CAS-No. 420-04-2 EC-No. 206-992-3
  Control parameters 0.58 ppm 1 mg/m³
  Can be absorbed through the skin.

- orthophosphoric acid
  CAS-No. 7664-38-2 EC-No. 231-633-2
  Control parameters 1 mg/m³ 2 mg/m³

Engineering measures
Provide washing facilities in the workplace.

Personal protective equipment

Respiratory protection
If aerosol or mists are formed:
Half mask with a particle filter P2 (EN 143).
Recommendation:
MSA Auer Affinity FR (FFP 2 / EN 149)
MSA Auer GmbH, Berlin, Germany

Hand protection
In case of contact through splashing:
Glove material: elbow-length rubber gloves

In case of full contact:
Glove material: butyl-rubber, Recommendation: Butoject 898, Kächele-Cama Latex GmbH (KCL), Germany
Material thickness 0.7 mm
Break through time > 480 min
Glove material nitrile rubber
Material thickness 0.4 mm
Break through time > 120 min
Method DIN EN 374, Source: KCL GmbH

Change protective gloves regularly.

**Eye protection**
Avoid contact with eyes.
tightly fitting safety goggles

**Skin and body protection**
chemical protective suit
rubber boots

**Hygiene measures**
When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
Do not consume alcoholic beverages prior to, during and 24 hours after handling the product.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Form liquid
- Colour blue
- Odour odourless

**Safety data**
- pH 3.9 - 4.9 (20 °C)
- Melting point/range -15 °C
- Flash point not applicable
- Vapour pressure 0.003 hPa (20 °C)
- Density 1.06 g/cm³ (20 °C)
- Water solubility completely miscible (20 °C)
- Viscosity, dynamic 1.026 mPa.s (20 °C)

## 10. STABILITY AND REACTIVITY

**Conditions to avoid**
- temperatures: > 20 °C
  - Keep away from direct sunlight.

**Materials to avoid**
- acids and bases, combustible substances

**Hazardous decomposition products**
- ammonia
11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
LD50 Rat: 284 mg/kg related to substance: Product

Acute inhalation toxicity
LC50 Rat: > 2 mg/l / 4 h maximum concentration in the test: no animals died. Own test result. related to substance: Product

Acute dermal toxicity
LD50 Rabbit: 1700 mg/kg Method: EPA FIFRA 81-2 Own test result.

Skin irritation
Rabbit irritating related to substance: Product

Eye irritation
Rabbit irritating

Sensitization
guinea pig: sensitizing

Mutagenicity assessment
Not mutagenic in AMES Test.
Did not show mutagenic effects in animal experiments.

Human experience
Interactions with alcohol (ethanol).
Irritating to eyes and skin.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability

Behaviour in environmental compartments

Ecotoxicity effects
Toxicity to fish
LC50 Oncorhynchus mykiss: 180 mg/l / 96 h Method: OECD 204

NOEC Oncorhynchus mykiss: 7.4 mg/l / 21 d Method: OECD 204 Own test result.
EC50 Lepomis macrochirus: 88 mg/l / 96 h
Method: OECD 204
related to substance: Product

EC50 Daphnia magna: 6.5 mg/l / 48 h
Method: OECD 202 part 1
related to substance: Product

EC50 Pseudokirchneriella subcapitata: 13.2 mg/l / 90 h
Figure relates to the main component

LD50 honeybees: ca. 100 µg/insect
Method: acute contact toxicity test

**Further information on ecology**

Do not allow entrance in stretches of water / surface water.

Additional ecological information
Under acid conditions (pH < 4) the product hydrolyses to urea, which is easily biodegradable.

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**13. DISPOSAL CONSIDERATIONS**

**Product**
In compliance with actual waste regulations, the product must be brought to a suitable disposal plant.

**Uncleaned packaging**
Rinse empty containers with water and use the rinse-water to prepare the working solution.
Triple rinse containers.
Do not re-use empty containers.
Can be disposed of as a solid waste or burned in a suitable installation subject to local regulations.

**Waste Key Number**
agrochemical waste containing dangerous substances (EU)
Agree on waste code no. with disposal company.

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**14. TRANSPORT INFORMATION**

**Land transport ADR/RID/GGVSE (Germany)**

<table>
<thead>
<tr>
<th>Class</th>
<th>ADR/RID-Labels</th>
<th>UN-No</th>
<th>Packaging group</th>
<th>orange warning plate</th>
<th>Description of the goods (Technical name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>8 (6.1)</td>
<td>2922</td>
<td>III</td>
<td>86 / 2922</td>
<td>CORROSIVE LIQUID, TOXIC, N.O.S. (cont. Cyanamide)</td>
</tr>
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</table>

**Sea transport IMDG-Code/GGVSee**

<table>
<thead>
<tr>
<th>Class</th>
<th>Subsidiary risk</th>
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<tbody>
<tr>
<td>8</td>
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</table>
SAFETY DATA SHEET (EC 1907/2006)

DORMEX

Material no. 132506
Specification
VA-Nr

UN-No 2922
Packaging group III
EmS F-A, S-B
Proper technical name (Proper shipping name)
CORROSIVE LIQUID, TOXIC, N.O.S. (cont. Cyanamide)

Air transport ICAO-TI/IATA-DGR
Class 8
Subsidiary risk 6.1
UN-No 2922
Packaging group III
Proper technical name (Proper shipping name)
Corrosive liquid, toxic, n.o.s. (cont. Cyanamide)

Inland waterway transport ADN/ADNR/GGVBinSch (Germany)
Class 8
ADR/RID-Labels 8 (6.1)
UN-No / Substance number 2922
Packaging group III
Description of the goods (Technical name)
CORROSIVE LIQUID, TOXIC, N.O.S. (cont. Cyanamide)

Loading instructions/Remarks
IATA_C ERGXCode 8P
IATA_P ERGXCode 8P
IMDG Clear of living quarters.

Transport/further information
Keep separate from foodstuffs, luxury foods, feedstuffs

15. REGULATORY INFORMATION

Labelling according to EC Directives

hazard-defining component(s)
- cyanamide; carbamitonitril

Symbol(s) Xn Harmful
N Dangerous for the environment

R-phrase(s) R21/22 Harmful in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s) S 1/2 Keep locked up and out of the reach of children.
S 3 Keep in a cool place.
S14 Keep away from acids and bases.
S49 Keep only in the original container.
S23 Do not breathe spray.
S36/37/39 Wear suitable protective clothing, gloves and eye/face
Labelling of specific substances / preparations

To avoid risks to man and the environment, comply with the instructions for use.

Do not contaminate water with the product or its container.

National legislation

16. OTHER INFORMATION

registration
- Europe (EINECS/ELINCS) listed/registered
- USA (TSCA) listed/registered
- Canada (DSL) listed/registered
- Australia (AICS) listed/registered
- Japan (MITI) listed/registered
- Korea (TCCL) listed/registered
- Philippines (PICCS) not listed/registered
- China listed/registered
- Switzerland listed/registered

Risk phrase (R phrase) texts
- cyanamide; carbamonitril
  - R25 Toxic if swallowed.
  - R21 Harmful in contact with skin.
  - R36/38 Irritating to eyes and skin.
  - R43 May cause sensitization by skin contact.
- orthophosphoric acid
  - R34 Causes burns.

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.