

Material Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

PROTEOfectene®

REACH Registration No:

1.2 Use of the substance or preparation:

Identified uses:

In compliance with the conditions described in the annex to this safety data sheet.

1.3 Company/undertaking identification:

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Supplier (manufacturer/importer/downstream user/distributor):

E-Mail (competent person):

Information contact:

1.4 Emergency Telephone:

Centre of detoxification

Germany:

Mainz +49 (0)6131 232466 or 232467

Munich +49 (0)89 19240

US or Canada:

+1 800 424-9300

International:

+1 703 527-3887

2. Hazards Identifications

2.1 Classification:

Highly flammable

2.2 Informations pertaining to special dangers for human and environment:

Adverse physicochemical effects:

Adverse human health effects and symptoms:

Adverse environmental effects:

Is to be classified according to EEC directive 67/548 and 99/45 as hazardous.

Note: slightly hazardous to water and ground.

Other adverse hazards:

Warnings: R11, Highly flammable

3. Composition/Information on ingredients

3.1 Chemical characterisation:

CAS.-No.:

EC-No.:

INDEX-No.:

Purity:

Synonymes:

Stabilisers:

Hazard impurities:

3.2 Hazard ingredients:

3.3 Additional information:

80% Ethanol (CAS: 64-17-5, EINECS: 200-578-6); F; R 11; S7-S16

20% Water (CAS: 7732-18-5, EINECS: 231-791-2)

4. First Aid Measures

4.1 General informations:

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

4.2 In case of inhalation:

Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

4.3 In case of skin contact:

Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.

4.4 In case of eye contact:

Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.

4.5 In case of ingestion:

No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.

4.6 Self-protection of the first aider:

4.7 Information to physician:

Symptoms:

Hazards:

Treatment:

5. Fire-Fighting Measures

5.1 Suitable extinguishing media:

Dry powder, carbonic acid or foam extinguisher (water is having a small efficiency factor).

5.2 Extinguishing media which must not be used for safety reasons:

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Heating leads to increase in pressure, danger of bursting and explosion.

5.4 Special protective equipment for fire-fighters:

Wear self-contained breathing apparatus and protective garments.

5.5 Additional information:

Remove this product from fire scene.

6. Accidental Release Measures

6.1 Personal precautions:

6.2 Environmental precautions:

6.3 Methods for cleaning up:

Absorb spilled substance with fluid binders. Contain and collect spillage with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite). Once spent, place all the contaminated disposables into a suitable container, seal, label and dispose.

6.4 Additional information:

7. Handling and Storage

7.1 Handling:

Advices on safe handling:

Good laboratory technique should be used when handling this product. Do not pipette with mouth. Observe appropriate chemical hygiene. Avoid contact with skin or eyes.

Protective measures:

Technical measures:

Measures to prevent aerosol and dust generation:

Measures required to protect the environment:

Specific requirements or handling rules:

Precautions against fire and explosion:

Do not eat, drink or smoke while working with reagents.

Further informations:

7.2 Storage:

Technical measures and storage conditions:

Exhaust fumes at source. Store between +2°C and +8°C. Do not freeze.

Packaging materials:

Requirements for storage rooms and vessels:

Hints on storage assembly:

Storage class:

Further information on storage conditions:

Do not store with toxic and fire-promoting substances.

7.3 Specific uses:

Recommendations:

Industrial sector specific solutions:

8. Exposure Controls / Personal Protection

8.1 Exposure limit values:

Occupational exposure limits:

Biological limit values:

DNEL/DMEL and PNEC-value(s):

8.2 Exposure controls:

Occupational exposure controls:

Technical measures to prevent exposure:

Personal protection equipment:

Respiratory protection:

None required if ventilation is adequate.

Hand protection:

Rubber or chemical resistant gloves should be worn.

Eye protection:

Safety glasses with side shields are advised. Eye wash stations and deluge showers should also be available. Finally, a lab coat should be worn.

Body protection:

Upon completion of work activities involving this product, wash any exposed body areas thoroughly with soap and water.

Environmental exposure controls:**Water (incl. sewage plant):****Air:****Soil:****Final user exposure controls by substances released from articles:**

9. Physical and Chemical Properties

9.1 Appearance:

Physical state:

liquid

Colour:

colourless

Odour:

alcoholic

9.2 Important health, safety and environmental information:

Safety relevant basic data:**pH (20°C):****Melting point/range (°C):****Boiling point/range (°C):**

78°C

Flash point (°C):

12°C

Ignition temperature (°C):

425°C

Vapour pressure (at 20 °C):

57hPa

Density (g/cm³):**Bulk density (kg/m³):****Water solubility (20°C in g/l):****Partition coefficient:****n-Octanol/Water (log Po/w):****Viscosity, dynamic (mPa·s):****Dust explosion hazard:****Explosion limits:**

Lower Explosion Limit (% by volume): 3.5%

Upper Explosion Limit (% by volume): 15%

Substance groups relevant properties:

9.3 Other informations:

Surface tension:

10. Stability and Reactivity

10.1 Conditions to avoid:

Vapour forms explosive mixture with air. Keep away from source of heat or ignition.

10.2 Materials to avoid:

10.3 Hazardous decomposition products:

No dangerous decomposition products known.

11. Toxicological Information

11.1 Toxicokinetics, metabolism and distribution:

11.2 Acute effects (toxicity tests):

Acute toxicity:

Specific symptoms in animal studies:

In case of ingestion:

LD50 rat 7.060 mg / kg

In case of skin contact:

LD50 intraperitoneal rat 4.070 mg / kg

In case of inhalation:

LD50 mouse 19000 ppm (4h)

In case of eye contact:

Irritant and corrosive effects:

Sensitisation:

In case of skin contact:

In case of inhalation:

Remark:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Summarised evaluation of the CMR properties:

11.3 Experiences made in practice:

Observations relevant to classification:

Other observations:

11.4 General remarks:

Intoxication has so far not become known.

12. Ecological information

12.1 Ecotoxicity:

Ethanol:

Toxicity to fish: LC50 Leuciscus idus 8.000 mg / L (48 h)

Toxicity to algae: EC50 chlorella pyrenoidosa 9.000 mg / L

Toxicity to bacteria: LOEC Pseudomonas putida 6.000 mg / L (16 h)

Toxicity to daphnia: EC50 Daphnia magna 14-26 mg / L

12.2 Mobility:

Known or predicted distribution to environmental compartments:

12.3 Persistence and degradability:

Abiotic Degradation:

Physical- and photo-chemical elimination:

Biodegradation:

Bioaccumulative potential:

12.4 Results of PBT assessment:

12.5 Other adverse effects:

12.6 Further ecological information:

13. Disposal Considerations

13.1 Appropriate disposal/product:

Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations.

13.2 Waste codes/designations according to EWC / AVV:

13.3 Appropriate packaging:

13.4 Additional information:

Prevent discharge of the liquid into the sewage system, cess pits and cellars. Vapours produce potentially explosive atmosphere.

14. Transport Information

14.1 Land transport (ADR/RID/GGVSE):

Official transport designation:

Class:

Classification Code:

UN-No.:

Packing group:

Hazard label:

Tunnel restriction code:

Special provisions:

14.2 Sea transport (IMDG-Code/GGVSee):

Proper Shipping Name:

Class:

UN-No.:

Packing group:

EmS:

Marine Pollutant:

Special provisions:

14.3 Air transport (ICAO-IATA/DGR):

Proper Shipping Name:

Class:

UN-No.:

Packing group:

Special provisions:

15. Regulatory Information

15.1 EU regulations:

Chemical Safety Assessment:

Labelling:

This product must be labeled in accordance with EEC directive 67/548 and 99/45.

Hazard symbols and hazard statements:

F Highly flammable

Hazard components for labelling:

R-Phrases:

R11 Highly flammable

S-Phrases:

S7 Keep container tightly closed.

S16 Keep away from sources of ignition. No smoking.

Special provisions concerning the labelling of certain preparations:

Other EU regulations:

Informations according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline):

15.2 National regulations (Germany):

Restrictions of occupation:

Störfallverordnung (12. BImSchV):

Wassergefährdungsklasse (water hazard class):

Technische Anleitung Luft (TA-Luft):

Other regulations, restrictions and prohibition regulations:

16. Other Information

16.1 Relevant R-phrases (Number and full text):

16.2 Training instructions:

16.3 Recommended Restriction of Appliance:

16.4 Further information:

Disclaimer:

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16.5 Data sources:

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