

Safety Data Sheet

Material Safety Data Sheet according to 91/155 EEC

Printing date 01/14/2010

Revision: 01/14/2010





1 Identification of substance

- **Product details**
- **Trade name** PENTOFROST A1
- **Article number:** -----
- **Application of the substance / the preparation** *Functional Fluid/Automotive Antifreeze*
- **Manufacturer/Supplier:**
Bottled and Distributed by:
CRP Industries Inc.
35 Commerce Drive
Cranbury, NJ 08512
USA
- **Informing department:**
Safety / Health / Environment
ers@chemtelinc.com
- **Emergency information:**
ChemTel Inc.
Phone 800/255-3924
International Phone 813/248-0585

2 Composition/information on ingredients

- **Chemical characterization**
- **Description:** *Mixture consisting of the following components with harmless additives.*

· Dangerous components:

107-21-1	ethane-1,2-diol	 Xn; R 22 Warning:  3.1.O/4	< 90%
111-46-6	2,2'-oxybisethanol	 Xn; R 22 Warning:  3.1.O/4	< 5%

- **Additional information** *For the wording of the listed risk phrases refer to section 16.*

3 Hazards identification

- **Hazard designation:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 22 Harmful if swallowed.
- **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- **GHS label elements** Void

Safety Data Sheet

Material Safety Data Sheet according to 91/155 EEC

Printing date 01/14/2010

Revision: 01/14/2010

Trade name PENTOFROST A1

(Contd. of page 1)

4 First aid measures

- **General information**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhaling** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** The product is generally no skin irritant.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Instantly call for doctor.

5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Dilute with much water.
Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Ensure good ventilation/suction at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class 10** (VCI Germany)

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with critical values that require monitoring at the workplace:**

107-21-1 ethane-1,2-diol (< 90%)

TLV	Short-term value: C 100 mg/m ³
H	

(Contd. on page 3)

Safety Data Sheet

Material Safety Data Sheet according to 91/155 EEC

Printing date 01/14/2010

Revision: 01/14/2010

Trade name PENTOFROST A1

(Contd. of page 2)

111-46-6 2,2'-oxybisethanol (< 5%)WEEL 10 mg/m³

- **Personal protective equipment**
- **General protective and hygienic measures**
 - Use skin protection cream for preventive skin protection.
 - Keep away from foodstuffs, beverages and fodder.
 - Wash hands during breaks and at the end of the work.
- **Breathing equipment:** Use breathing protection only when aerosol or haze is formed.
- **Protection of hands:**
 - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Protective goggles recommended during refilling.

9 Physical and chemical properties:

· General Information

Form: Fluid
Colour: Red
Smell: Characteristic

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: > 150°C (> 302°F)

· **Flash point:** 126°C (259°F)

· **Ignition temperature:** 410°C (770°F)

· **Self-inflammability:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive.

· Critical values for explosion:

Lower: 3.2 Vol %
Upper: 53.0 Vol %

· **Steam pressure at 20°C (68°F):** 0.1 hPa

· **Density at 20°C (68°F)** 1.13 g/cm³

· Solubility in / Miscibility with

Water: Fully miscible

USA

(Contd. on page 4)

Safety Data Sheet

Material Safety Data Sheet according to 91/155 EEC

Printing date 01/14/2010

Revision: 01/14/2010

Trade name **PENTOFROST A1**

(Contd. of page 3)

10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known
- **Dangerous products of composition:** None

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

107-21-1 ethane-1,2-diol

Oral LD50 5840 mg/kg (rat)

Dermal LD50 9530 mg/kg (rbt)

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritant effect.

· **Sensitization:** No sensitizing effect known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

12 Ecological information:

· **Information about elimination (persistence and degradability):**

· **Other information:** The product is easily biodegradable.

· **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

13 Disposal considerations

· **Product:**

· **European waste catalogue**

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 01 00 end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)

16 01 14 antifreeze fluids containing dangerous substances

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14 Transport information

· **Maritime transport IMDG/GGVSea:**

· **Marine pollutant:** No

(Contd. on page 5)

Safety Data Sheet

Page 5/5

Material Safety Data Sheet according to 91/155 EEC

Printing date 01/14/2010

Revision: 01/14/2010

Trade name PENTOFROST A1

(Contd. of page 4)

· **Transport/Additional information:** No dangerous goods in accordance with the above orders

15 Regulatory information

· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**

Xn Harmful

· **Hazard-determining components of labelling:**

ethane-1,2-diol

· **Risk phrases:**

22 Harmful if swallowed.

· **Safety phrases:**

2 Keep out of the reach of children.

13 Keep away from food, drink and animal feedingstuffs.

23 Do not breathe gas/fumes/vapour/spray.

36 Wear suitable protective clothing.

46 If swallowed, seek medical advice immediately and show this container or label.

52 Not recommended for interior use on large surface areas.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing data specification sheet:** Safety / Health / Environment

· **Contact:** Dr.G.Lukaschek

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**

USA