



Radiator Conditioner

Print date : 04.05.2006

Product code : 235

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

1.1 Identification of the substance or preparation

Radiator Conditioner

1.2 Company/undertaking identification

Company name	PRO-TEC Deutschland	
Street	Gewerbegebiet Aschbach	
Place	D-07338 Großgeschwenda	
Contact person	Jens Möller, Dipl.-Chem.	Telephone 036735/444-0
e-mail	info@pro-tec-deutschland.com	Telefax 036735/444-44
Internet	www.pro-tec-deutschland.de	

2. Composition/information on ingredients

Chemical characterization (preparation)
Additives
corrosion preventing agent
Sum of ingredients:
> 50 %

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
203-473-3	107-21-1	ethanediol, ethylene glycol	50 - 80 %	Xn R22
		polymers, org. phosphorus compound	1 - 5 %	Xi R36/38
		carboxylic acid with ethanolamine	1 - 5 %	Xi R36/38
205-483-3	141-43-5	2-aminoethanol, ethanolamine	1 - 5 %	Xn, C R20/21/22-34

Full text of each relevant R phrase can be found in heading 16.

3. Hazards identification

Classification

Symbols : Harmful
R-phrases :
Harmful if swallowed.

4. First aid measures

General information

Take the injured person out of the danger area and lay him/her down.
Take off immediately all contaminated clothing

After inhalation

Move victim to fresh air. Instruct person to keep calm and warm.
In case of difficulties of breathing administer oxygen. Consult physician.

After contact with skin

After contact with skin, wash immediately with: water and soap.

After contact with eyes

After contact with eye rinse immediately with lot of water at least 5 minutes with open eyelid.
Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water.
Give activated carbon, in order to reduce the resorption in the gastro-enteric tract.
Do not induce vomiting. Consult physician.

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Advice to doctor

Symptoms: Dizziness. Nausea. unconsciousness.
Nature of Hazard: Heart circulatory collapse.

5. Fire-fighting measures**Suitable extinguishing media**

Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons

High power water jet.

Special protective equipment for fire-fighters

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

Additional information

Contaminated fire-fighting water must be collected separately.
Contaminated fire-fighting water must not get into the sewerage network.

6. Accidental release measures**Personal precautions**

Wear personal protection equipment.
Provide adequate ventilation.
Remove from all sources of ignition.
Avoid contact with skin and eyes.
Do not breathe gas/fumes/vapour/spray.

Environmental precautions

Do not empty into drains or the aquatic environment.
In cases of gas being released or leakage into waters, the ground or the drainage system the appropriate authorities must be informed.

Methods for cleaning up/taking up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Provide adequate ventilation.

7. Handling and storage**7.1 Handling****Advice on safe handling**

Keep container tightly closed in a cool, well-ventilated place.

Advice on protection against fire and explosion

Keep away from sources of ignition. No smoking.
Concentrated vapors are heavier than air. Fumes may form explosive mixtures with air.

7.2 Storage**Requirements for storage rooms and vessels**

Keep in a cool, well-ventilated place.
Storage temperature: at below °C: 50 °C

Advice on storage compatibility

Should be stored separately from oxidizing agents.

Further information on storage conditions

Hygroscopic product.

8. Exposure controls/personal protection**8.1 Exposure limit values**

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8.2 Exposure controls

Protective and hygiene measures

- Take off immediately all contaminated clothing
- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin and eyes.
- When using do not eat, drink or smoke.
- Wash hands when done working with material; at breaks, lunch, shift changes, etc.

Respiratory protection

- Provide for good ventilation, when develop aerosols/mist.
- In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

- Tested protective gloves are to be worn:
- CR (polychloroprenes, Chloroprene rubber). Butyl rubber.
- Material thickness: 0,5 mm
- penetration time: ≥ 8 h

- NBR (Nitrile rubber).
- Material thickness: 0,35 mm
- penetration time: ≥ 8 h

Eye protection

- Tightly sealed safety glasses.

Skin protection

- Wear suitable solvent-proof protective clothing according to EN 465.

9. Physical and chemical properties

9.1 General information

Physical state	liquid
Colour	colourless, clear
Odour	odourless

9.2 Important health, safety and environmental information

	Test method
pH-Value (at 20 °C) :	9 - 10
Changes in the physical state	
Density (at 20 °C) :	1,09 g/cm ³
Water solubility :	easily soluble.
at (20 °C)	

9.3 Other information

Ignition temperature	> 400 °C
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10. Stability and reactivity

Conditions to avoid

- UV-solarization/sunlight.
- Keep away from moisture.
- Do not store at temperatures over: 50 °C
- No decomposition when used as intended.

Materials to avoid

- Oxidizing agents, strong.
- acid, concentrated.
- Alkalis (alkalis), concentrated.

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Hazardous decomposition products
nitrogen oxides (NOx).

11. Toxicological information**Corrosive and irritant effects**

In case of prolonged or frequently repeated skin contact: irritant.
Following eye contact: irritant.
After ingestion: Irritation and etching

12. Ecological information**Ecotoxicity**

fish toxicity:
Oncorhynchus mykiss LC50 > 18.500 mg/l 96h
Leuciscus idus LC50 > 10.000 mg/l 48h

Aquatoxicity
Daphnia EC50 > 10.000 mg/l 24h

Persistence and degradability

Product is partially biodegradable.

Bioaccumulative potential

No indication of bio-accumulation potential.

Additional information

Do not empty into drains or the aquatic environment.

13. Disposal considerations**Advice on disposal**

Do not dispose with household waste.
Arrange about the exact waste code with the local waste disposal expert.
Have to add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Contaminated packaging

Container must be completely emptied.
Cleaned containers may be recycled.

14. Transport information**Land transport (ADR/RID)****Remarks (land transport)**

Not a hazardous material with respect to transportation regulations.

Inland waterways transport**Remarks (inland waterways transport)**

Not a hazardous material with respect to transportation regulations.

Marine transport**Remarks (marine transport)**

Not a hazardous material with respect to transportation regulations.

Air transport**Remarks (air transport)**

Not a hazardous material with respect to transportation regulations.

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15. Regulatory information**15.1 Labelling**

Indication of danger

Xn - Harmful



Xn - Harmful

Hazardous component(s) to be indicated on label

ethanediol, ethylene glycol

R phrases

22 Harmful if swallowed.

S phrases

02 Keep out of the reach of children.

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

51 Use only in well-ventilated areas.

15.2 National regulations

Water contaminating class

1 - slightly water contaminating

16. Other information**List of relevant R phrases**

22 Harmful if swallowed.

34 Causes burns.

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

36/38 Irritating to eyes and skin.

Other data

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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