SAFETY DATA SHEET (according to 1907/2006/EC, Article 31)

DIFFU - THERM® Penetrant Red BDR - L (Cans)



1. Identification of the substance/mixture and of the company/undertaking:

Product identifier

Trade name: Penetrant **Article number**: BDR - L

Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the preparation

At the penetration process by colours acc. to EN ISO 3452-1 [EN 571-1] (DIN 54 152 part 1) for finding surface cracks.

Details of the supplier of the safety data sheet

Manufacturer/Supplier

Helmut Klumpf

Technische Chemie KG

Industriestr. 15

D - 45699 Herten Phone.: +49(0)2366 1003 - 0 Fax: +49(0)2366 1003 - 11 Email: klumpf@diffu-therm.de

Emergency telephone number: a.m. or next Emergency phone:

2. Hazards identification

1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC void

Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Precautionary statements

The usual precautionary measures when handling chemicals must be observed.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Results of PBT and PvB assessment

PBT: Not applicable **vPvB:** Not applicable

3. Composition/information on ingredients

Chemical characterization:

Mixture of substances listed below and non-hazardous additions.

| Components: | Name of chemical | weight % |
|--------------------|---|----------|
| CAS: 196823-11-7 | oxirane, methyl-, polymer with oxirane, mono isotridecyl ether, block | / 2 |
| EINECS: Polymer | GHS07 Eye Dam./Irrit. 2, H319 signal word: Attention | ≤3 |
| CAS: 509-34-2 | xanthene dyes C. I. Solvent Red 49 | . 2 |
| EINECS: 208-096-8 | Acute Tox. 4(oral), H302 S 2, GHS07 Eye Dem./Irrit. 2, H319, H411 | < 2 |

4. First aid measures

General information:

Remove contaminated soaked clothing immediately.

After inhalation

In the event of symptoms refer for medical treatment.

After skin contact:

In case of contact with skin wash off with soap and water.

After eye contact:

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting.

Seek immediate medical advice.

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5. Fire fighting measures

Suitable extinguishing material:

ABC powder, foam, carbon dioxide.

Extinguishing material that must not be used for safety reasons:

Full water jet.

Special exposure hazards extinguishing from the substance or preparation itself, combustible products or resulting gases:

None

Special protective equipment for fire fighters:

None

6. Accidental release measures

Personal precautions:

Ensure adequate ventilation.

Keep away sources of ignition.

Environmental precautions:

Do not discharge into the subsoil/soil.

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up:

Take up with absorbent material

(e.g. sand, sawdust, kieselguhr, general-purpose binder).

7. Handling and storage

Precautions for safe handling

No special measures required.

Keep containers tightly sealed.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Use only containers specifically permitted for this substance/product.

Country-specific requirements for the storage of low water-polluting substances have to be aware.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Avoid contact with air / oxygen.(formation of peroxide).

Keep container tightly sealed.

Specific end use(s) No further relevant information available.

Storage class: LGK 10

8. Exposure controls and personal protection

Additional advice on system design:

No further data, see item 7.

Control parameters

| Components | Components with critical values that require monitoring at the workplace: | |
|------------|---|--|
| 111-90-0 | 2-(2-Ethoxyethoxy)ethanol (> 50%) | |
| WEL | 35 mg/m³, 6 ml/m³ 2(I);AGS, Y | |
| 107-21-1 | Monoethylenglykol (< 10%) | |
| WEL | 26 mg/m³, 10 ml/m³ 2(I);DFG, EU,H,Y | |

Personal protection equipment:

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end for the work. Avoid contact with eyes and skin.

Breathing equipment:

Use breathing protection only when aerosol or mist is formed.

Use breathing protection in case of insufficient ventilation.

Hand protection:

Neoprene gloves

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Eye protection:

Tightly fitting goggles

Skin Protection:

Light protective clothing.

General protective measures:

Avoid contact with eyes. Do not inhale aerosols.

9. Physical and chemical properties

General Information:

Form: Fluid Colour: red Smell: almost odourless

Data relevant for safety:

Boiling range: 195 - 230 °C Flash point: 94 °C Ignition temperature: 320 °C

Explosive properties: The Product is not explosive, but

may form flammable/explosive vapour-air mixture.

Explosion limits Lower e.l.: 1,2 Vol.% Upper e.l.: 23,5 Vol.%

Vapour pressure (20°C): < 0,7 mbar Density (20°C): 0,99 g/cm³ Solubility in water (20°C): Fully miscible Viscosity (20°C): 6,05 mm²/s

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Materials to be avoided:

Reacts with strong oxidizing agents.

Dangerous reactions:

No dangerous reactions known.

11. Toxicological information

Acute Toxicity:

Irritability/Corrosiveness:
Skin: slightly irritant
Eve: slightly irritant

Sensitization: No sensitization known. **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The material is not subject to classification according to EC lists in the last version.

12. Ecological information

Toxicity

| Toxicity | | | |
|----------|---------------|---|--|
| | Aquatic toxic | Aquatic toxicity: | |
| | 111-90-0 | 2-(2-Ethoxyethoxy)ethanol | |
| | EC 50 | 1.982 mg/l (Daphnia) (48h/ daphnia magna) | |
| | LC 50 | 21.400 mg/l (Acute fish toxicity) (Lepomis macrochirus) | |

Degree of elimination: OECD 301B E 90% (1), (28d)

Bioaccumulative potential Not worth-mentioning accumulating in organisms.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

Other adverse effects No further relevant information available.

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13. Disposal considerations

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according the local authority regulations.

European waste catalogue -

Uncleaned packaging's:

Recommendation:

Empty contaminated packaging's thoroughly. They can be recycled after thorough and proper cleaning. Packaging's that cannot be cleaned are to be disposed of in the same manner as the product.

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

14. Transport information

Land transport ADR/RID, Marine transport IMDG and

Air transport ICAO-TI and IATA-DGR

No danger goods in all transport regalement.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Relevant phrases

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

National regulations

Water hazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

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

Department issuing data specification sheet:

Contact: Helmut. Klumpf Technische Chemie KG

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

 $GefStoffV: Gefahrstoffverordnung\ (Ordinance\ on\ Hazardous\ Substances,\ Germany)$

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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