

Printing date 28.08.2018

CHEM S solutions through service

Revision: 28.08.2018

| Identification of the substance/mixture and of the company/undertak | ing |
|--|-----|
| | |
| Product identifier | |
| Trade name: pentane-1,5-diol | |
| Article number: A0287261 | |
| CAS Number: | |
| 111-29-5 | |
| EC number: | |
| 203-854-4 | |
| Relevant identified uses of the substance or mixture and uses advised against | |
| No further relevant information available. | |
| Application of the substance / the mixture Laboratory chemicals | |
| Details of the supplier of the safety data sheet | |
| Manufacturer/Supplier: | |
| Chemos GmbH & Co. KG | |
| Werner-von-Siemens-Straße 3 | |
| 93128 Regenstauf | |
| Deutschland chemos@chemos.de | |
| www.chemos.de | |
| | |
| Further information obtainable from: Abteilung Produktsicherheit | |
| Emergency telephone number: | |
| EU 112 | |
| Germany 49(0)613119240 | |
| France +33(0)145425959 Spain +34915620420 | |
| Netherlands +31(0)302748888 | |
| Switzerland 145 | |
| | |
| English speaking countries +441865407333 | |
| USA / Canada +12024642554 | |
| Australia +61280144558 | |
| Germany: +49(0)613119240 | |
| | |
| P Hazards identification | |
| Classification of the substance or mixture | |
| Classification according to Regulation (EC) No 1272/2008 | |
| The substance is not classified, according to the CLP regulation. | |
| Label elements | |
| Laber elements Labelling according to Regulation (EC) No 1272/2008 Void | |
| Hazard pictograms Void | |
| Signal word Void | |
| Hazard statements Void | |
| Other hazards | |
| Caution! To the best of our knowledge the toxicological properties of this material ha | ave |
| not been thoroughly investigated. | |
| Results of PBT and vPvB assessment | |
| PBT: Not applicable. | |
| vPvB: Not applicable. | |

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3 Composition/information on ingredients

- · Chemical characterisation: Substances
- · CAS No. Description
- 111-29-5 pentane-1,5-diol
- · Identification number(s)
- EC number: 203-854-4

4 First aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions:
- Dilute with plenty of water.
- Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- · Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

· Handling:

- **Precautions for safe handling** No special measures required.
- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- · Storage class: 10

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

8 Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

- · Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

- · Respiratory protection: Not required.
- 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: Goggles recommended during refilling

| Information on basic physical and o General Information | chemical properties | |
|--|---|--|
| Appearance: | | |
| Form: | Fluid | |
| Colour: | Colourless | |
| Odour: | Nearly odourless | |
| Odour threshold: | Not determined. | |
| pH-value: | Not determined. | |
| Change in condition Melting point/freezing point: Initial boiling point and boiling re | -16 °C Inge: 240-244 °C | |
| Flash point: | 142 °C | |
| Flammability (solid, gas): | Not applicable. | |
| Ignition temperature: | 330 °C | |
| Decomposition temperature: | Not determined. | |
| Auto-ignition temperature: | Not determined. | |
| Explosive properties: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | 1.3 Vol % | |
| Upper: | 13.1 Vol % | |

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|---|--|--------------------|
| · Vapour pressure at 20 •C: | <0.01 hPa | |
| · Density at 20 •C: | $0.99 \ g/cm^3$ | |
| · Relative density | Not determined. | |
| · Vapour density | Not determined. | |
| · Evaporation rate | Not determined. | |
| · Solubility in / Miscibility with | | |
| water: | Fully miscible. | |
| · Partition coefficient: n-octanol/water: | Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not determined. | |
| Kinematic: | Not determined. | |
| • Other information | No further relevant information available. | |

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

Oral LD50 2,000 mg/kg (rat)

Dermal LD50 >19,800 mg/kg (rabbit)

- · Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- \cdot **Reproductive toxicity** Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- $\cdot \textbf{STOT-repeated exposure} Based on available data, the classification criteria are not met.$
- Aspiration hazard Based on available data, the classification criteria are not met.

12 Ecological information

· Toxicity

- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.

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- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation Smaller quantities can be disposed of with household waste.
- · Uncleaned packaging:
- *Recommendation: Disposal must be made according to official regulations.*
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

| UN proper shipping name | ot regulated ot regulated |
|--|------------------------------|
| • ADR, ADN, IMDG, IATA no • Transport hazard class(es) | |
| | |
| · ADR, ADN, IMDG, IATA | |
| · Class no | ot regulated |
| · Packing group · ADR, IMDG, IATA no | ot regulated |
| • Environmental hazards: No | lot applicable. |
| · Special precautions for user No | Iot applicable. |
| • Transport in bulk according to Annex II of Marpol and the IBC Code No | lot applicable. |
| · UN ''Model Regulation'': no | ot regulated |

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Abteilung Umweltschutz

· Contact: Hr. Gräwe

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· 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) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative