SHDINE CHEMICALS

Safety Data Sheet

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

- · Product details
- · Trade name: Mono Ethylene Glycol
- · Further information obtainable from: Product safety department.
- · Information in case of Emergency Product safety department.

2 Composition/information on ingredients

- · Chemical characterization:
- · CAS No. Description
- 107-21-1 ethanediol
- · Identification number(s)
- · EINECS Number: 203-473-3
- · Index number: 603-027-00-1

3 Hazards identification

· Hazard description:



Xn Harmful

· Information concerning particular hazards for human and environment: R 22 Harmful if swallowed.

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 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: Call for a doctor immediately.

5 Fire-fighting measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety precautions: Not required.

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· Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/surface or ground water.

· Measures for cleaning/collecting:

Dilute with plenty of water.

Dispose contaminated material as waste according to item 13.

7 Handling and storage

- · Handling:
- · Information for safe handling: No specific requirement
- · Information about fire and explosion protection: No special measures required.
- · 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.

8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol	
TLV(USA)	Short-term value: C 100 mg/m³
	H
$IOELV\left(EU ight)$	Short-term value: 104 mg/m³, 40 ppm Long-term value: 52 mg/m³, 20 ppm
	Long-term value: 52 mg/m³, 20 ppm
	Skin
WEL (Great Britain)	Short-term value: 104** mg/m³, 40** ppm Long-term value: 10* 52** mg/m³, 20** ppm
	Long-term value: 10* 52** mg/m³, 20** ppm
	Sk *particulate **vapour

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- · 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.

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· Eye protection: Goggles recommended during refilling

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9 Physical and chemical properties

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· General Information	
Form:	Fluid
Colour:	Colourless
Odour:	Sweetish
· Change in condition	
Melting point/Melting range:	· -12.4°C
Boiling point/Boiling range:	197°C
· Flash point:	111°C
· Ignition temperature:	410°C
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	3.2 Vol %
Upper:	53 Vol %
· Vapour pressure at 20°C:	0.08 hPa
· Density at 20°C:	1.11 g/cm^3
· Solubility in / Miscibility with water at 20°C:	1 g/l
· Viscosity:	
Dynamic at 20°C:	21 mPas

10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Dangerous reactions No dangerous reactions known.
- · Dangerous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Acute toxicity:
- · LD/LC50 values relevant for classification:

 Oral
 LD50
 5840 mg/kg (rat)

 Dermal
 LD50
 9530 mg/kg (rabbit)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.

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12 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.

13 Disposal considerations

- · Product:
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- · Land transport ADR/RID (cross-border)
- · ADR/RID class:
- · Maritime transport IMDG:
- · IMDG Class:
- · Marine pollutant: No
- · Air transport ICAO-TI and IATA-DGR:
- · ICAO/IATA Class: -

15 Regulatory information

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:



Xn Harmful

- · Risk phrases:
- 22 Harmful if swallowed.
- · Safety phrases:
- 2 Keep out of the reach of children.

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 MSDS: Product safety department
- · Contact: Mr. Menon