

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

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

Use of the substance/mixture:

Kühlmittel

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Jost Chemicals GmbH

Gottlieb-Daimler-Str. 10

69514 Laudenbach

Germany

Telephone: 0049-6201-42810

Telefax: 0049-6201-45590

E-mail: info@jost-chemicals.de

Website: www.jost-chemicals.de

1.4. Emergency telephone number

R&D, Telefon auskunftgebender Bereich: 0049-(0)6201-42810, Notfallauskunft: R&D (Mo - Fr. 08.00 - 16.00 Uhr), 0049-(0)6201-42810 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
STOT-repeated exposure (STOT RE 2)	H373: May cause damage to organs through prolonged or repeated exposure. (...)	

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS08

Health hazard

Signal word: Warning

Hazard components for labelling:

ethane-1,2-diol

hazard statements for health hazards

H373 May cause damage to organs through prolonged or repeated exposure. (...)

Supplemental Hazard information (EU): -

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Precautionary statements Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264.1	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Precautionary statements Response

P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../ if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.

2.3. Other hazards

Adverse human health effects and symptoms:

Causes damage to kidneys through prolonged or repeated exposure if swallowed.

Causes damage to kidneys through prolonged or repeated exposure in contact with skin.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

[P:744be4b2-48c9-4254-85d3-2ecd374aeee3]

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 7732-18-5 EC No.: 231-791-2	water	39 - 65 Wt %
CAS No.: 107-21-1 EC No.: 203-473-3 REACH No.: 01-2119456816-28-0000	ethane-1,2-diol Acute Tox. 4, STOT RE 2 H302-H373	21 - 35 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. Get medical advice/attention if you feel unwell.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion:

Rinse mouth. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion causes nausea, weakness and central nervous system effects.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray Foam Extinguishing powder

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety.
Use personal protection equipment.
Provide adequate ventilation.
Avoid contact with eyes and skin.

Protective equipment:

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

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

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

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8).

Fire prevent measures:

No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation:

Provide adequate ventilation.

Environmental precautions:

Do not empty into drains.

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Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

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

Requirements for storage rooms and vessels:

Keep/Store only in original container.

Hints on storage assembly:

Do not store together with: Food and feedingstuffs

Storage class: 12 - non-combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IOELV (EU)	ethane-1,2-diol CAS No.: 107-21-1	① 20 ppm (52 mg/m ³) ② 40 ppm (104 mg/m ³)
TRGS 900 (DE)	ethane-1,2-diol CAS No.: 107-21-1	① 10 ppm (26 mg/m ³) ② 20 ppm (52 mg/m ³) ⑤ Kann über die Haut aufgenommen werden.

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection

Skin protection:

Tested protective gloves must be worn DIN EN 374 Suitable material:NBR (Nitrile rubber) Breakthrough time (maximum wearing time) min In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

8.2.3. Environmental exposure controls

No data available

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8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: transparent

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	6.4 - 6.6	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	> 100 °C			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	> 110 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Relative density	1.03 - 1.05 g/cm ³	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	<i>not determined</i>			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No known hazardous reactions.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Heat

UV-radiation/sunlight

10.5. Incompatible materials

Acid

Oxidising agent, strong

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
107-21-1	ethane-1,2-diol	LD₅₀ oral: 4,000 mg/kg (Ratte) LC₅₀ inhalative: >2.5 mg/l 6 h (Mouse) LD₅₀ dermal: >3,500 mg/kg (Rat)

Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

Carcinogenicity:

No indication of human carcinogenicity.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-repeated exposure:

Causes damage to kidneys through prolonged or repeated exposure if inhaled.

Causes damage to kidneys through prolonged or repeated exposure in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
107-21-1	ethane-1,2-diol	LC₅₀: 54,700 mg/l 4 d LC₅₀: 41,000 mg/l 2 d LC₅₀: 72,860 mg/l 4 d (Pimephales promelas (fat head minnow)) EC₅₀: 6,500 - 13,000 mg/l 4 d (Selenastrum capricornutum) EC₅₀: >100 mg/l 2 d (Daphnia magna (Big water flea))

Aquatic toxicity:

There are no data available on the preparation/mixture itself.

Sediment toxicity:

There are no data available on the preparation/mixture itself.

Terrestrial toxicity:

There are no data available on the preparation/mixture itself.

12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
107-21-1	ethane-1,2-diol	not determined	Bioaccumulative potential: No information available.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
7732-18-5	water	—
107-21-1	ethane-1,2-diol	—

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose according to legislation.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.

not relevant

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

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

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

5 MuSchRiV.
4 MuSchRiV.
22 JArbSchG.

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Water hazard class (WGK)

WGK:

1 - schwach wassergefährdend

15.2. Chemical Safety Assessment

No data available

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

No data available

16.3. Key literature references and sources for data

Data arise from reference works and literature.

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
STOT-repeated exposure (STOT RE 2)	H373: May cause damage to organs through prolonged or repeated exposure. (...)	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure. (...)

16.6. Training advice

No data available

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.