SAFETY DATA SHEET

MOL-LUB Ltd.

Trade name: EVOX Ice-crystal -40 scented winter screenwash, ice-crystal

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 1/(9)

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

Product name:

EVOX Ice-crystal -40

Product type / recommended uses:

preparation / winter screenwash

Manufacturer / Supplier identification:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

H-2931 Almásfüzitő, Fő u. 21., Hungary

Phone / Fax: +36 34 526 330 / +36 34 526 391

Request SDS of:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

Customer Service Center

H-2931 Almásfüzitő, Fő u. 21., Hungary

Phone / Fax: +36 80 201 296 / +36 34 348 010

Responsible for SDS:

MOL-LUB Ltd. Csaba Horváth, head of HSE and QOP

Phone: +36 34 526 343; Mobile: +36 20 474 2644

e-mail: csahorvath@mol.hu

Technical information:

MOL-LUB Ltd. Product Development and Technical Service

H-1117 Budapest, Október huszonharmadika u. 18., Hungary

Phone/Fax: +36 80 201 296 or +36 1 464 0236 / +36 1 464 0304

Emergency telephone (07-15²⁰ h): +36 34 526 210

Health Toxicological Information Service (ETTSZ 1096 Budapest, Nagyvárad tér 2.)

Tel.: +36 1 476 6464, or +36 80 201 199

2. Hazards identification

Human health hazards: Danger symbol not required.

Note: In high concentration and prolonged exposure the vapours are narcotic if

inhalated.

Inhalation of vapours may cause drowsiness, indisposition, stomachache,

headache, depression, and unconsciousness.

Prolonged and/or repeated contact may cause skin irritation, depending on individual sensitivity. May be irritating to eyes. (See also Protective equipment).

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Safety hazards: F (highly flammable)

R 11 Highly flammable

Environmental hazards: Danger symbol not required.

Note: May be harmful to aquatic organisms.

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 2/(9)

3. Composition / information on ingredients

Chemical description: Mixture of water, alcohols, monoethylene glycol, tenside, flavour,

colorific and other additives.

Composition / hazardous components:

| Name | EINECS | CAS | Hazard | Risk phrase | Conc. |
|---------------------|-----------|----------|--------|-------------|---------|
| | number | number | symbol | | %(m/m) |
| Ethanol | 200-578-6 | 64-17-5 | F | R 11 | max. 55 |
| Isopropyl alcohol | 200-661-7 | 67-63-0 | F, Xi | R 11, R 36, | max. 5 |
| | | | | R 67 | |
| Monoethylene glycol | 203-473-3 | 107-21-1 | Xn | R 22 | max. 3 |

The full text of each relevant R phrase see in Section 16.

4. First aid measures

General information: If unconscious do not induce vomiting! Never administer anything by

mouth if a casualty is unconscious or convulsing. Place in recovery position the unconscious person.

Inhalation: Remove exposed person to fresh air and keep warm. If breathing is

difficult, apply artificial respiration or administer oxygen. Get medical

attention

Skin contact: Wash with soap and water. Remove contaminated clothing.

Eye contact: Flush immediately with plenty of running water for at least 15 minutes,

holding the eyelids open. Get medical attention.

Ingestion: Give plenty of water! Get immediately medical attention.

Note to physician: Inhalation or swallowing of material may have narcotic effects, which

may cause losing consciousness. Treat symptomatically.

5. Fire-fighting measures

Flash Point

12-26°C (closed cup)

Highly flammable.

Keep away from radiant heat and open flames.

Suitable extinguishing media:

alcohol resistant foam dry chemical, water spray, CO₂

Unsuitable extinguishing media:

-

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 3/(9)

Hazardous decomposition products:

On burning carbon-monoxide can be formed.

Special protective equipment:

Accordance with current regulations.

Recommend wearing self-contained breathing apparatus.

Further information:

Cool containers exposed to fire with water spray from save distance.

Vapours may form explosive mixture with air.

6. Accidental release measures

Personal precautions:

See Section 8.

Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid. Notify relevant authority.

Clean-up procedures / recovery

Exclude source of ignition. Adequate ventilation required in enclosed areas.

Recover free liquid by pumping. Contain spilled liquid with sand, earth or other suitable absorbents. Dispose of according to local regulations. Clean up with large amount of water the contaminated area.

7. Handling and storage

Handling:

Adequate ventilation required.

Keep material away from and open flame. No smoking.

Take precautionary measures against static discharges.

Avoid contact with skin and eyes, inhalation of vapours.

Keep general measures applied for normal operations with chemicals.

Handling temperature:

Storage:

Keep material away from heat, sparks, and open flame. Store in cool, dry, well-ventilated area, in original, tightly closed containers.

Keep out of the reach of children. Keep away from food, drink.

Storage temperature: max. 35°C

Specific application:

See product sheet.

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 4/(9)

8. Exposure controls / personal protection

Engineering control measures:

Adequate ventilation.

Exposure limits:

EU [2000/39/EC]

monoethylene glycol 8 h 52 mg/m³

Short-therm 104 mg/m³

USA [ACGIH]

ethanol TLV (TWA) 1920 mg/m³ (1000 ppm) isopropyl alcohol TLV (TWA) 980 mg/m³ (400 ppm)

Hungary [25/2000 (IX. 30.) EüM-SZCSM regulation in accordance with relevant EC

directives]

ethanol ÁK-value: 1900 mg/m³

CK-value: 7600 mg/m^3

isopropyl alcohol ÁK-value: 500 mg/m³

CK-value 2000 mg/m³

monoethylene glycol ÁK-value: 52 mg/m³

CK-value 104 mg/m³

Personal protection:

Respiratory protection: Required, when vapours / aerosols are generated (Filter A for

vapours of organic compounds).

Hand protection: protective gloves
Eye protection: chemical goggles
Skin protection: protective clothing

Other special:

General protective measures / hygiene:

Avoid contact with skin and eyes. Avoid breathing of vapours.

Ensure washing facilities after working hours and before breaks. Take off contaminated clothing, wash with warm water and soap.

When using do not eat or drink and do not smoke.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

9. Physical and chemical properties

Appearance:

Physical state: liquid Colour: blue

Odour: fragrance of fruits

Change in physical state:

Freezing point: <-40°C

Boiling point: not determined

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 5/(9)

Others:

Flash point: $12-26^{\circ}\text{C}$ (closed cup)

Ignition point:

Autoignition temperature: Material does not have autoignition

properties.

Explosion limits: lower/upper:

Decomposition temperature: not known

Oxidizing properties:

Vapour pressure at 20°C: no data

Vapour Density:

Density at 20°C: 0.90-0.92 g/cm³

Solubility in water at 20°C: soluble in all proportion

n-Octanol/water partition coefficient:

pH (at 20°C, in original physical state): not known Viscosity (at 20°C) dynamical: not known

10. Stability and reactivity

Stability: No decomposition if stored and handled properly.

Conditions to avoid: not known

Materials to avoid: Strong oxidizing agents.

Hazardous decomposition products: On burning carbon-monoxide can be formed.

Hazardous reaction: not known

Notes:

11. Toxicological information

Acute toxicity:

Oral (OECD 401): LD_{50} (rat) ethanol 7060 mg/kg

LD₅₀ (rat) isopropyl alcohol 2000 mg/kg

Dermal (OECD 402): LD₅₀ (rabbit) isopropyl alcohol 2000 mg/kg Inhalation (OECD 403): LC₅₀ (rat) ethanol 20 000 ppm 10h

Note: In high concentration and prolonged exposure the vapours are narcotic if

inhalated.

Inhalation of vapours may cause drowsiness, indisposition, stomachache,

headache, depression, and unconsciousness.

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 6/(9)

Acute toxicity: irritation

Contact with skin: not irritant (based on components)
Contact with eyes: not irritant (based on components)

Note: Prolonged and/or repeated contact may cause skin irritation, depending on

individual sensitivity. May be irritating to eyes.

Sensitization: not sensitising (based on components)

Chronic toxicity: not known

Other information, specific effects:

Carcinogen effect: not known, resp. not carcinogen (based on

components)

Mutagen effect: not known, resp. not mutagen (based on components)
Reproduction-damaging effect: not known, resp. not reproduction-damaging effect

(based on components)

12. Ecological information

Mobility: Soluble in water.

Degradability / persistence:

Biodegradability: Degradable.

Biodegradability of surfactants > 80 or 90 % (648/2004/EC).

Bioaccumulation: not known

Ecotoxicity:

Fish toxicity: ethanol LC_{100} 9000 mg/l 24h

 $is opropyl\ alcohol \qquad LC_{50} \qquad \qquad > 100 \qquad \quad mg/l \qquad 48h$

Daphnia toxicity: ethanol $EC_0 > 7800 \text{ mg/l}$

 $is opropyl \ alcohol \qquad EC_{50} \qquad > 100 \qquad mg/l \quad \ 48h$

Algae toxicity: ethanol $EC_0 > 5000 \text{ mg/l}$

Biological oxygen demand: Chemical oxygen demand:

Environmental effects: May be harmful to aquatic organisms.

Water hazard classification (German): WGK 1

13. Disposal considerations

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

EWC cod: 07 01 04*

other organic solvents, washing liquids and mother liquors

Disposal must be in compliance with national and local regulations.

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 7/(9)

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

EWC cod: 15 01 10*

packaging containing residues of or contaminated by dangerous substances Disposal must be in compliance with national and local regulations.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

14. Transport information

Land transport:

Road/ Railway ADR/ RID: 3 F1 Kemmler number: N₁ 30 Packaging group: III

UN number: 1170 ETHANOL SOLUTION

Waterways:

Inland waterways/ Sea transport ADN/IMDG Not classified.

Air transport: ICAO / IATA: Not classified.

15. Regulatory information

Classification and labelling according to EU directives [67/548/EEC and 88/379/EEC, 1999/45/EC (existing versions)] and to Hungarian regulation [44/2000. (XII. 27.) EüM rendelet (existing version)] for hazardous substances and hazardous preparations:

Danger symbol(s) and indication(s):

*

highly flammable

Hazardous substance(s): Ethanol

Isopropyl alcohol Monoethylene glycol

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 8/(9)

The packaging must bear the inscription: -

R-phrases: R 11 Highly flammable

S-phrases: S 2 Keep out of the reach of children (In case of distribution for

population)

S 7 Keep container tightly closed

S 16 Keep away from sources of ignition - No smoking

S 46 If swallowed, seek medical advice immediately and show this

container or label

Tactile warning of danger: in case of distribution for population:

16. Other information

Recommended application / restrictions:

See product sheets.

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006, Directives 88/379/EEC and 1999/45/EC.

Source of data presented in this material safety data sheet:

Test results of this product

Material safety data sheets of product's components

Hungarian and EU lists of dangerous substances

Relevant Hungarian regulation and EU directives

The full text of each relevant R phrase in Section 3.:

| R 11 | Highly flammable |
|-------|--|
| IX 11 | manification of the state of th |

- R 22 Harmful if swallowed
- R 36 Irritating to eyes
- R 67 Vapours may cause drowsiness and dizziness

Version: 9 Latest revision: 10. 12. 2008 Date of issue: 03. 09. 2004 Page: 9/(9)

| Section | Subject of change | Date | Version |
|---------|--|------------|---------|
| | Modification of the name | 08.10.2004 | 1 |
| 1 | Modification of the name Manufacturer/supplier identification For more information contact | 01.09.2005 | 2 |
| 1 | Name | 25.07.2006 | 3 |
| 15, 16 | Regulatory information and other corrections | | |
| 2 | Composition/information on ingredients | 30.08.2006 | 4 |
| 15 | Regulatory information | | |
| 5 | Fire-fighting measures | 21.11.2006 | 5 |
| | Regulatory informations, other corrections | 20.07.2007 | 6 |
| 3 | Composition / information on ingredients | 06.09.2007 | 7 |
| 7 | Handling and storage | | |
| 8 | Exposure controls / personal protection | | |
| 12 | Ecological information | | |
| 15 | Regulatory information | | |
| 16 | Other information | | |
| 1-16 | Other corrections | 06.10.2008 | 8 |
| 9 | Composition / information on ingredients | 10.12.2008 | 9 |
| 15 | Regulatory information – S-phrases | | |