SAFETY DATA SHEET
BIS-(CHLOROMETHYL) ETHER

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product name: BIS-(CHLOROMETHYL) ETHER
In-house No.: 1480
Supplier: AB GÖTEBORGS TERMOMETERFABRIK
Södra Långebergs gatan 30
SE-421 32 Västra Frölunda
Tel: 031-680490
Fax: 031-680717

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS No.</th>
<th>Content</th>
<th>Symbol</th>
<th>R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS-(CHLOROMETHYL) ETHER</td>
<td>208-832-8</td>
<td>542-88-1</td>
<td>97 %</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

See section 16 for explanations to R-phrases

EU index No.: 603-046-00-5
EC No.: 208-832-8
Gross formula: C2H4Cl2O
CAS No.: 542-88-1

3. HAZARDS IDENTIFICATION

EYE CONTACT: can irritate the eyes. SKIN CONTACT: Harmful in contact with skin. INGESTION: harmful if swallowed. INHALATION: Can cause lethal poisoning. May cause cancer. Flammable.

4. FIRST AID MEASURES

Inhalation: Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Promptly get affected personnel to drink large volumes of water to dilute the swallowed chemical. After the liquid has been swallowed, try to induce vomiting by having affected person touch back of his throat with his finger. Get medical attention immediately! When unconscious, loosen tight clothing and position in secured recovery position. NOTE! Effects may be delayed. Keep affected person under observation. NOTE! Keep affected person away from heat, sparks and flames!

Skin: Remove affected person from source of contamination. Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention promptly if symptoms occur after washing.

Eyes: Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
5. FIRE FIGHTING MEASURES

Extinguishing media
Water spray, fog or mist. Powder, foam or CO2.

Special fire fighting procedures
Use water to keep fire-exposed containers cool and disperse vapours. Move container from fire area if it can be done without risk.

Specific hazards
May develop highly toxic or corrosive fumes if heated. Toxic, irritating or flammable fumes from reaction with water or steam. May form explosive or toxic mixtures with air. May travel considerable distance to source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

Spill cleanup methods
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Clean-up personnel should use respiratory and/or liquid contact protection. Collect with absorbent, non-combustible material into suitable containers. Flush area with water.

7. HANDLING AND STORAGE

Usage precautions
AVOID ALL CONTACT! Do not handle broken packages without protective equipment.

Storage precautions
Flammable/combustible - Keep away from oxidisers, heat and flames. Keep in cool, dry, ventilated storage and closed containers. Keep away from heat, sparks and open flame.

Storage criteria
Toxic storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation
Work in a glove box.

Respirators
Gas cartridge (organic substances). Check that mask fits tight and change filter regularly. Suitable respiratory protection must be used at high concentrations.

Protective gloves
Use protective gloves made of: Multi-layer material (eg 4H, Saranex).

Eye protection
Use approved safety goggles or face shield.

Other Protection
AVOID ALL SKIN AND RESPIRATORY CONTACT!

Hygienic work practices
Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Eating, smoking and water fountains prohibited in immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Liquid. Volatile.

Colour
Colourless.

Odour
Stinging. Suffocating.

Mol. weight
114.96

Boiling point (°C, interval)
104 - 105

Pressure
10. STABILITY AND REACTIVITY

Stability

Materials to avoid

Hazardous decomp. products

11. TOXICOLOGICAL INFORMATION

Toxic dose - LD 50:
210.00 mg/kg (oral rat)

Toxic conc. - LC 50:
7.00 ppm/-- (inhalation rat)

Carcinogenicity

Health warnings
Exposure: This chemical has poor warning properties! Irritating to eyes. Known or suspected carcinogen for humans. Pulmonary cancer. Liver and/or kidney damage.

Other health effects

Route of entry
Inhalation. Skin absorption. Ingestion.

Target organs

Medical symptoms

Medical considerations
Chronic respiratory and obstructive airway diseases. Skin disorders and allergies. Liver and/or kidney problems.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Disposal methods
Confirm disposal procedures with environmental engineer and local regulations.
14. TRANSPORT INFORMATION

ROAD TRANSPORT:

UN No. road 2249

15. REGULATORY INFORMATION

EC No. 208-832-8
Other information EC label

16. OTHER INFORMATION

Explanations to R-phrases in section 2
* Information revised since the previous version of the SDS

Information sources

Revision date 2005-01-28
Printing date: 2005-01-28