

Material Safety Data Sheet**2-METHOXY ETHYL CHLORIDE****Section 1 - Product and Company Information**

| | |
|--------------------------------|--|
| Substance | : 2-METHOXY ETHYL CHLORIDE, 2- Chloroethyl methyl ether, 1-chloro-2-methoxy ethane |
| Trade Name | : 2-Methoxy ethyl chloride |
| Chemical Family | : Chloro alkyl Ethers |
| Company | : Shiva Pharmachem Ltd. Plot No. 588, Village Luna – 391440 Taluka Padra, District: Vadodara, Gujarat, India. |
| Phone No. | : +91-2662-221021 / 224360 |
| Fax No. | : +91-2662-223314 |
| Emergency Information | : ---- |
| International emergency number | : +91 2662 221021 |

Section 2 - Hazards Identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)**

Flammable liquids (Category 2)
Acute toxicity, inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Acute toxicity, Oral (Category 4)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.

2.2 Label elements**Labeling according Regulation (EC) No 1272/2008 (CLP)****Pictogram****Signal Word**

Danger

Hazard statement(s)

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H332 | Harmful if inhaled. |

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Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces-No smoking.
P280 Wear protective gloves/protective clothing.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R11 Highly flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

S-phrase(s)

S36/37 Wear suitable protective clothing and gloves.

2.3 Other hazards None

Section 3 – Composition / Information on Ingredients

| Product Name | CAS No. | EC No. | Mol. Formula | Mol. Weight. |
|--------------------------|----------|-----------|-----------------------------------|--------------|
| 2-Methoxy Ethyl Chloride | 627-42-9 | 210-999-7 | C ₃ H ₇ ClO | 94.54 g/mol |

Section 4 – First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If inhaled, move person to fresh air. If not breathing give artificial respiration. Consult a physician.

If skin Contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

If eye Contact

In Case of contact with eyes, flush with copious amounts of water at least 15 minutes. Assure adequate flushing by separating the eyelids. Consult a physician.

If swallowed

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

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Section 5 – Fire Fighting Measures

SUITABLE EXTINGUISHING MEDIA

For small (incipient) fire, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water form as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special hazard arising form the substance or mixture

Carbon oxides, Hydrogen chloride gas.

Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Section 6 – Accidental Release Measures

Personal protection, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mists or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13

Section 7 - Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Keep away form sources of ignition-No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas.

Specific end uses

No data available

Section 8 - Exposure Controls / Personal Protection

Control parameters

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Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 Derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, and the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection

Where risk assessment shows air-purifying respirators and appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Section 9 - Physical and Chemical Properties

| | |
|------------------------|-----------------------------|
| Form | : Liquid |
| Color | : Colorless |
| pH | : Slightly acidic |
| BP/BP Range | : 89-90 °C |
| MP/MP Range | : - 55 °C |
| Flash Point | : 10° C Method: Closed Up |
| Flammability | : Highly flammable |
| Autoignition Temp | : No data available |
| Oxidizing Properties | : No data available |
| Explosive Properties | : No data available |
| Explosive Limits Lower | : No data available |
| Vapor Pressure | : No data available |
| SG/Density | : 1.035 g/ml at 25°C |
| Refractive index | : 1.4090 |
| Water Solubility | : Slightly Soluble in water |

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Section 10 - Stability and Reactivity

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents, strong bases

Hazardous decomposition products

No data available

Section 11 - Toxicological Information

Information on toxicological effects**Acute toxicity**

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity-single exposure

No data available

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Specific target organ toxicity-repeated exposure

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation : Harmful inhaled. May cause respiratory tract irritation.

Ingestion : Harmful if swallowed.

Skin : Harmful if absorbed through skin. May cause skin irritation.

Eyes : May cause eye irritation

Section 12 - Ecological Information

No data available

Section 13 - Disposal Considerations

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packing

Dispose of as unused product.

Section 14 - Transport Information

RID/ADR

UN No. : 3271

Hazard Class : 3

Packing Group : II

Proper Shipping Name: ETHERS, N.O.S (2-Methoxy Ethyl Chloride)

IMDG

UN No. : 3271

Hazard Class : 3

Packing Group : II

Proper Shipping Name: ETHERS, N.O.S (2-Methoxy Ethyl Chloride)

Marin Pollutant : No

IATA

UN No. : 3271

Hazard Class : 3

Packing Group : II

Proper Shipping Name: ETHERS, N.O.S (2-Methoxy Ethyl Chloride)

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Section 15 - Regulatory Information

This safety data sheet complies with the requirements of Regulations (EC) No 1907/2006.

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

No data available

Section 16 - Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Shiva Pharmachem Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incident, consequential or exemplary damages, howsoever arising, even if Shiva Pharmachem Ltd has been advised of the possibility of such damages