<b>Material Safety</b>	Data Sheet
------------------------	------------



	$\bigcirc$
Di – iso – PROPYL ETHER	VERSION: 02
	DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
	SUPERSEDES: 01
Product Code : 60100	Page 1 of 10

1. Identification of the substance/mixture and of the company/undertaking **1.1. Product identifier Trade name** : Di – iso – PROPYL ETHER **Product code** : 60100 **Identification of the product** : Di – iso – Propyl Ether CAS No: 108-20-3 1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only. **1.3.** Details of the supplier of the safety data sheet **Company identification** : MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email: info@molychem.net Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503 **1.4. Emergency telephone number** Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm). 2. Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Flammable liquids, H225 Category 2 Specific target organ toxicity — Single exposure, H336 Category 3, Narcosis Classification according to Directive 67/548/EEC or 1999/45/EC Adverse physicochemical, human health and environmental effects No additional information available 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to displayExtra classification(s) to display **Symbol**(s) : Xn: Harmful Highly flammable explosive **R Phrase**(**s**) : R11: Highly flammable.

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 2 of 10

R19: May form explosive peroxides.

R66: Repeated Exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

**S Phrase**(s) : S9: keep container in a well ventilated place.

S16: Keep away from source of ignition-No smoking.

S29: Do not empty into drains.

S33: Take precautionary measures against static discharges.

### Hazard pictograms :



Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapour

H336 - May cause drowsiness or dizziness

**Precautionary statements** : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

2.3. Other hazards

No additional information available

## 3. Composition/information on ingredients

**3.1. Substance**: DI-iso-PROPYL ETHER

CAS No : 108-20-3

Substance.

Contains no other components or impurities which will influence the classification of the product.

## 4. First aid measures

## 4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Repeated exposure may cause skin dryness or cracking.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 3 of 10

First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/injuries after inhalation : May cause drowsiness or dizziness.

**4.3. Indication of any immediate medical attention and special treatment needed** No additional information available

## 5. Firefighting measures

## 5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable extinguishing media : Do not use a heavy water stream.

## 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form explosive peroxides.

## **5.3.** Advice for firefighters

Firefighting instructions : DO NOT fight fire when fire reaches explosives. Evacuate area.

## 6. Accidental release measures

## 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

## 6.1.1. For non-emergency personnel

Emergency procedures : Do not breathe vapours.

## 6.1.2. For emergency responders

Protective equipment : Avoid breathing dust/fume/gas/mist/vapours/spray. Emergency procedures : Ventilate area.

# **6.2. Environmental precautions**

Avoid release to the environment.

## 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

## **6.4. Reference to other sections**

No additional information available

# Material Safety Data Sheet



#### **Di – iso – PROPYL ETHER**

VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01 Page 4 of 10

## 7. Handling and storage

Product Code : 60100

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Hazardous waste due to potential risk of explosion.

Precautions for safe handling : No naked lights. No smoking. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Keep away from sources of ignition - No smoking.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed.

Incompatible products : Oxidizing agent.

Incompatible materials : Heat sources.

#### 7.3. Specific end use(s)

No additional information available

#### 8. Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection : protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

#### 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Odour threshold : No data available

**pH** : No data available

**Relative evaporation rate (butylacetate=1)**: 8

**Melting point** : -85 °C

**Freezing point** : No data available **Boiling point** : 65 - 70

## Material Safety Data Sheet



#### Di – iso – PROPYL ETHER

VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01 Page 5 of 10

Product Code : 60100

Flash point : -29 °C Auto-ignition temperature : 4430 °C **Decomposition temperature** : No data available Flammability (solid, gas) : Flammable Highly flammable liquid and vapour Vapour pressure : 119 mm Hg at 20C Relative vapour density at 20 °C : 3.5 **Relative density** : 0.73 **Density** :  $0.78 \text{ g/cm}^3$ Solubility : Water: 0.2 g/100ml @ 20°C Log Pow : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosive properties** : May form explosive peroxides. **Oxidising properties** : No data available **Explosive limits** : 0.01 - 0.21 vol % 9.2. Other information No additional information available **10.** Stability and reactivity **10.1. Reactivity** No additional information available

**10.2. Chemical stability** Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

**10.4.** Conditions to avoid

Open flame. Direct sunlight. Heat. Sparks. Overheating.

**10.5. Incompatible materials** 

Oxidizing agent.

**10.6. Hazardous decomposition products** 

May release flammable gases. May form explosive peroxides.

**<u>11. Toxicological information</u>** 

**11.1. Information on toxicological effects** 

Acute toxicity : Not classified

Skin corrosion/irritation : Not classified

Additional information : Repeated exposure may cause skin dryness or cracking Serious eye damage/irritation : Not classified

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 6 of 10

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness. Specific target organ toxicity (repeated exposure) : Not classified Aspiration hazard : Not classified

#### **12. Ecological information**

- 12.1. Toxicity
- No additional information available
- **12.2. Persistence and degradability**

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

#### 13. Disposal considerations

#### **13.1.** Waste treatment methods

Product/Packaging disposal

Recommendations : Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapours are flammable.

Hazardous waste due to potential risk of explosion.

#### 14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN **14.1. UN number** UN-No. (ADR) : 1159 UN-No. (IMDG) : 1159 UN-No.(IATA) : 1159 UN-No.(ADN) : 1159 UN-No. (RID) : 1159 **14.2. UN proper shipping name** 

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 7 of 10

Proper Shipping Name (ADR) : DIISOPROPYL ETHER Proper Shipping Name (IMDG) : DIISOPROPYL ETHER Proper Shipping Name (IATA) : DIISOPROPYL ETHER Proper Shipping Name (ADN) : DIISOPROPYL ETHER Proper Shipping Name (RID) : DIISOPROPYL ETHER Transport document description (ADR): UN 1159 DIISOPROPYL ETHER, 3, II, (D/E) Transport document description (IMDG) : UN 1159 DIISOPROPYL ETHER, 3, II (-29°C c.c.) Transport document description (IATA) : UN 1159 DIISOPROPYL ETHER, 3, II Transport document description (ADN) : UN 1159 DIISOPROPYL ETHER, 3, II Transport document description (RID) : UN 1159 DIISOPROPYL ETHER, 3, II 14.3. Transport hazard class(es) ADR- Transport hazard class(es) (ADR): 3 Danger labels (ADR): 3 **IMDG**- Transport hazard class(es) (IMDG) : 3 Danger labels (IMDG): 3 IATA- Transport hazard class(es) (IATA) : 3 Hazard labels (IATA) : 3 **ADN**- Transport hazard class(es) (ADN) : 3 Danger labels (ADN): 3 **RID**- Transport hazard class(es) (RID) : 3 Danger labels (RID) : 3 14.4. Packing group Packing group (ADR) : II Packing group (IMDG) : II Packing group (IATA) : II Packing group (ADN) : II Packing group (RID) : II 14.5. Environmental hazards Dangerous for the environment : No Marine pollutant : No Other information : No supplementary information available 14.6. Special precautions for user Overland transport- Classification code (ADR) : F1 Limited quantities (ADR): 1L Excepted quantities (ADR) : E2 Packing instructions (ADR) : P001, IBC02, R001 Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions (ADR) : T4



	)
Di – iso – PROPYL ETHER	VERSION: 02
	DATE OF ISSUE : 26-08-2019
	SUPERSEDES: 01
Product Code : 60100	Page 8 of 10

Portable tank and bulk container special provisions (ADR) : TP1 Tank code (ADR) : LGBF Vehicle for tank carriage : FL Transport category (ADR) : 2 Special provisions for carriage – Operation (ADR) : S2, S20 Hazard identification number (Kemler No.): 33 Orange plates : Tunnel restriction code (ADR) : D/E EAC code : 3YE Transport by sea- Limited quantities (IMDG) : 1 L Excepted quantities (IMDG) : E2 Packing instructions (IMDG) : P001 IBC packing instructions (IMDG) : IBC02 Tank instructions (IMDG): T4 Tank special provisions (IMDG) : TP1 EmS-No. (Fire) : F-E EmS-No. (Spillage) : S-D Stowage category (IMDG) : E Stowage and handling (IMDG) : SW2 Flash point (IMDG) : -29°C c.c. **MFAG-No** : 127 Air transport- PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA): 353 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) : 60L ERG code (IATA) : 3H Inland waterway transport- Classification code (ADN) : F1 Limited quantities (ADN) : 1 L Excepted quantities (ADN) : E2 Carriage permitted (ADN) : T Equipment required (ADN) : PP, EX, A Ventilation (ADN): VE01 Number of blue cones/lights (ADN): 1 Rail transport- Classification code (RID) : F1 Limited quantities (RID) : 1L Excepted quantities (RID) : E2

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 9 of 10

Packing instructions (RID) : P001, IBC02, R001 Mixed packing provisions (RID) : MP19 Portable tank and bulk container instructions (RID) : T4 Portable tank and bulk container special provisions (RID): TP1 Tank codes for RID tanks (RID) : LGBF Transport category (RID): 2 Colis express (express parcels) (RID) : CE7 Hazard identification number (RID): 33 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable **15. Regulatory information** 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.1. EU-Regulations No REACH Annex XVII restrictions DI-iso-PROPYL ETHER is not on the REACH Candidate List DI-iso-PROPYL ETHER is not on the REACH Annex XIV List **15.1.2.** National regulations Germany AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 598) 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) Denmark Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product **15.2.** Chemical safety assessment No additional information available **16. Other information** Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives

Material Safety Data Sheet	MOLYCHEM
Di – iso – PROPYL ETHER	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 60100	Page 10 of 10

67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 **Further information** : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

#### End of document Prepared by: MOLYCHEM (INDIA)

For questions contact: MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503

(The statements contained herein are offered for informational purposes only and are based upon technical data that MOLYCHEM believes to be accurate. It is intended for use only by persons having the necessary technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE.)