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MATERIAL SAFETY DATA SHEET (MSDS)

DIETHYL ETHER AR

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : DIETHYL ETHER AR

Product code : SS0102502500

Identification of the product : DIETHYLETHER AR (Stabilished) 99%
 CAS No :60-29-7

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 SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : F+; R12
 R19
 Xn; R22
 R66
 R67

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -
 Warning (CLP : STOT SE 3) H336
 Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302

Physical hazards : Flammable liquids - Category 1 - Danger (CLP : Flam. Liq. 1) H224

2.2. Label elements

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

 : F+ : Extremely flammable
 Xn : Harmful

R Phrase(s)

 : R12 : Extremely flammable.
 R19 : May form explosive peroxides.
 R22 : Harmful if swallowed.
 R66 : Repeated exposure may cause skin dryness or cracking.
 R67 : Vapours may cause drowsiness and dizziness.

S Phrase(s)

 :
 S16 : Keep away from sources of ignition - No smoking.
 S29 : Do not empty into drains.
 S33 : Take precautionary measures against static discharges.

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

 : H224 : Extremely flammable liquid and vapour.
 H302 : Harmful if swallowed.
 H336 : May cause drowsiness or dizziness.

Precautionary statements
• Prevention

 : P240: Ground/bond container and receiving equipment.
 P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.
 P210: Keep away from heat, sparks, open flames or hot surfaces. - No smoking.
 P280: Wear protective gloves, protective clothing, eye protection, face protection.
 P271: Use only outdoors or in a well-ventilated area.
 P261: Avoid breathing dust, fume, gas, mist, vapours, spray.
 P233: Keep container tightly closed.
 P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.

• Response

 : P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
 P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
 P370+P378: In case of fire: Use for extinction.

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
2. Hazards identification -DSD (continued)

- **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.
P403+P235: Store in well-ventilated place. Keep cool.
P405: Store locked up.
- **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

- Substance / Preparation** : DIETHYLETHER AR (Stabilished) 99%
CAS No :60-29-7
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

- Inhalation** : Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.
- Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- Ingestion** : Obtain emergency medical attention. Rinse mouth. Call a POISON CENTER or doctor if you feel unwell. Do NOT induce vomiting.

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

- Symptoms relating to use** : Swallowing a small quantity of this material will result in serious health hazard.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

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

- General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
5. Fire-fighting measures
5.1. Extinguishing media

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media** : Do not use a heavy water stream.
- Surrounding fires** : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

- Flammable class** : Extremely flammable liquid and vapour.
May form explosive peroxides.
- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present. May form flammable/explosive vapour-air mixture.

5.3. Advice for fire-fighters

- Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. DO NOT fight fire when fire reaches explosives. Evacuate area.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection.
Ventilate area.
Avoid breathing dust, fume, gas, mist, vapours, spray.
- Technical measures** : Use special care to avoid static electric charges.
- Special precautions** : Remove ignition sources. No naked lights. No smoking. Reacts vigorously with strong oxidizers and acids.
- For non-emergency personnel** : Evacuate unnecessary personnel.

6.2. Environmental precautions

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
6. Accidental release measures (continued)

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling	: Handle empty containers with care because residual vapours are flammable. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area.
Technical protective measures	: Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment. Use only non-sparking tools.
Special precautions	: No naked lights. No smoking. Avoid breathing dust, fume, gas, mist, vapours, spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources. Oxidizing agent.

7.3. Specific end use(s)

Specific end use(s)	: None.
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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
• Hand protection	: Wear protective gloves.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits	: No data available.
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MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Sweet Etheral odour
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: -116°C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 160°C
Flammability (solid, gas)	: Flammable. Extremely flammable liquid and vapour.
Flash point [°C]	: -40 °C
Boiling point [°C]	: 34.6 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: 37,5
Vapour pressure [20°C]	: 563 hPa at 20 °C
Vapour pressure mm/Hg	: N/A
Vapour density	: 2,6
Density [g/cm ³]	: 0,71
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: 65 g/l at 20 °C
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm ² /s]	: N/A

9.2. Other information

Explosive properties	: N/A May form explosive peroxides.
Explosion limits - upper [%]	: 48%
Explosion limits - lower [%]	: 1,80%
Oxidising properties	: No data available.

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
10. Stability and reactivity
10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Sparks. Heat. Overheating.
Open flame. Heat. Sparks. Open flame. Direct sunlight. Overheating.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.
Oxidizing agent.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
May release flammable gases.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- Inhalation : Based on available data, the classification criteria are not met.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : Harmful if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Repeated exposure may cause skin dryness or cracking.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : May cause drowsiness or dizziness.

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
11. Toxicological information (continued)

STOT-repeated exposure : Based on available data, the classification criteria are not met.
 Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Hazardous waste due to potential risk of explosion.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Handle empty containers with care because residual vapours are flammable.

MATERIAL SAFETY DATA SHEET (MSDS)
DIETHYL ETHER AR
14. Transport information
14.1. Land transport (ADR-RID)

Proper shipping name : DIETHYL ETHER (ETHYL ETHER)
 UN N° : 1155
 H.I. nr : 33
 ADR - Class : 3
 Labelling - Transport : 3 : Flammable liquid.



ADR - Classification code : F1
 ADR - Group : I
 ADR - Packing instructions : P001
 ADR - Limited Quantity : 0
 ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.


14.2. Sea transport (IMDG) [English only]

Proper shipping name : DIETHYL ETHER (ETHYL ETHER)
 UN N° : 1155
 IMO-IMDG - Class or division : 3 : Flammable liquid.
 IMO-IMDG - Packing group : I
 IMO-IMDG - Packing instructions : P001
 IMO-IMDG - Limited quantities : None
 IMO-IMDG - Marine pollution : No
 EMS-Nr : F-E S-D

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : DIETHYL ETHER (ETHYL ETHER)
 UN N° : 1155
 IATA - Class or division : 3 : Flammable liquid.
 IATA - Packing group : I
 IATA - Passenger and Cargo Aircraft : ALLOWED

MATERIAL SAFETY DATA SHEET (MSDS)

DIETHYL ETHER AR

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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