

Liquid Helium

PRODUCT: HELIUM (REFRIGERATED) MSDS NR : 300-00-0016 BOC VERSION: 1.04 DATE : 15/02/2005 PAGE : 1/1

1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Product name	Liquid Helium
Chemical formula	He
Company identification	see heading and/or footer
Emergency phone Nos	see heading and/or footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	Substance
Components/Impurities	Contains no other components or impurities which will influence the classification of the product.
CAS Nr	7440-59-7
EC Nr (from EINECS)	231-168-5

3 HAZARDS IDENTIFICATION

Hazards identification	Refrigerated liquefied gas. Contact with product may cause cold burns or frostbite. In high concentrations may cause asphyxiation.
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4 FIRST AID MEASURES

Inhalation	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin/eye contact	Immediately flush eyes with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply sterile dressing. Obtain medical assistance.
Ingestion	Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards	Exposure to fire may cause containers to rupture/explode. Non flammable.
Hazardous combustion products	None
Suitable extinguishing media	All known extinguishants can be used.
Specific methods	If possible, stop flow of product. Move container away or cool with water from a protected position.
Special protective equipment for fire fighters	In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate area. Use protective clothing. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.
Environmental precautions	Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Clean up methods	Ventilate area

7 HANDLING AND STORAGE

Handling and storage	Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions. Keep container below 50°C in a well ventilated place.
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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection	Ensure adequate ventilation. Protect eyes, face and skin from liquid splashes.
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9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight	4
Melting point	Not applicable
Boiling point	-269°C
Critical temperature	-268°C
Relative density, gas	0.14 (air=1)
Relative density, liquid	0.12 (water=1)
Vapour Pressure 20°C	Not applicable
Solubility mg/l water	1.5 mg/l water
Appearance/Colour	Colourless liquid
Odour	None

10 STABILITY AND REACTIVITY

Stability and reactivity	Stable under normal conditions. Liquid spillages can cause embrittlement of structural materials.
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11 TOXICOLOGICAL INFORMATION

General	No known toxicological effects from this product.
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SAFETY DATA SHEET

12 ECOLOGICAL INFORMATION

General Can cause frost damage to vegetation.

13 DISPOSAL CONSIDERATIONS

General To atmosphere in a well ventilated place.
Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

14 TRANSPORT INFORMATION

Proper Shipping Name Helium, refrigerated liquid
UN Nr 1963
Class/Div 2.2
ADR/RID Classification Code 3A
ADR/RID Hazard Nr 22
Packaging Group None
IMDG EmS Codes F-C, S-V
IMDG Marine Pollutant No
IATA Passenger Packing Instruction 202
IATA Passenger Max. Quantity/Pack 50kg
IATA Cargo Packing Instruction 202
IATA Cargo Max. Quantity/Pack 500kg
Labelling ADR Label 2.2: non flammable non toxic gas

Other transport information Avoid transport on vehicles where the load space is not separated from the drivers compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured and:
– there is adequate ventilation.
– compliance with applicable regulations.

15 REGULATORY INFORMATION

Number in Annex I of Dir 67/548 Not included in Annex I.
EC Classification Not classified as dangerous substance.
Labelling of cylinders – Symbols Label 2.2: non flammable non toxic gas

16 OTHER INFORMATION

Ensure all national/local regulations are observed.
Asphyxiant in high concentrations. Contact with liquid may cause cold burns/frostbite.
Keep container in well ventilated place.
Do not breathe the gas.
The hazard of asphyxiation is often overlooked and must be stressed during operator training. Users of breathing apparatus must be trained.
This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.



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For product and safety enquiries please phone

In the United Kingdom:

0800 02 0800

BOC

The Priestley Centre, 10 Priestley Road

The Surrey Research Park

Guildford, Surrey GU2 7XY

Fax: 0800 13 6601

In the Republic of Ireland:

Dublin 1850 333 435

BOC

P.O. Box 201

Bluebell

Dublin 12

Fax: 01 409 1805