

## MATERIAL SAFETY DATA SHEET

### **Helium (Gas)**

#### PRODUCT AND COMPANY IDENTIFICATION

Product name	Helium
Chemical name	Helium
Chemical formula	He
Components	Formed from element helium
Impurities	Contains no other impurities which will influence the classification of the product
Company identification	CryoExpress Singapore Pte Ltd 1 Bukit Batok Crescent #05-15 WCEGA Plaza Singapore 658064
Telephone number	(65) 6561 5282

#### HAZARDS IDENTIFICATION

Hazards identification	Might cause asphyxiant if released in confined area.
Inhalation	Helium is a simple asphyxia. Symptoms of exposure include dizziness, headache and loss of consciousness.
Ingestion	Ingestion is unlikely to happen.

#### Product Information / Ingredients

Substance / Preparation	Substance
Components Impurities	Contain no other components or impurities, which will influence the classification of the product.
CAS No	7440-59-7

### FIRST AID MEASURES

Inhalation	High concentration causes asphyxiation. Symptoms include loss of mobility and consciousness. Low concentration causes increased respiration and headache. Immediately remove victim to fresh air area.
Ingestion	Ingestion is unlikely to happen.

### FIRE FIGHTING MEASURES

Specific hazards	Non-flammable. Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products	None.
Suitable extinguishing media	All known extinguishers could be used.

### ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate all personnel from affected area. Wear protective clothing and self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.
Environmental precautions	Stop flow if atmosphere is proved to be unsafe. Do not enter any place (e.g. basements, workpits) where its accumulation could be dangerous.
Clean up methods	Ventilate area.

### HANDLING AND STORAGE

Handling and storage	Suck back of water into container and backfeed must be prevented. Use only properly specified equipment, supply pressure and temperature for this product. Contact supplier if in doubt.
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#### EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit value (PEL-OSHA)	None.
Personal protection	Ensure adequate ventilation. In case of leakage, use self-contained breathing apparatus.

#### PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight	4
Freezing point	Not applicable
Boiling point	-269 °C
Critical temperature	-268 °C
Relative density, gas	0.14 (air = 1)
Relative density, liquid	Not applicable
Vapour pressure 20 °C	Not applicable
Solubility mg/l water	1.5 mg/l
Odour and appearance	Colourless, odourless gas

#### STABILITY AND REACTIVITY

Stability and reactivity	Stable under normal conditions.
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#### TOXICOLOGICAL INFORMATION

General	No known toxicological effects from this product.
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#### ECOLOGICAL INFORMATION

General	No known ecological effects from this product.
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### DISPOSAL CONSIDERATIONS

General Do not discharge into any place where its accumulation could be dangerous. Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required.

### TRANSPORT INFORMATION

Proper shipping name Helium  
UN Nr 1046  
Hazard class 2.2  
Shipping label Label 2: Non flammable gas.  
Other transport information Avoid transport on vehicles where load space is not separated from driver's compartment. Ensure vehicle driver is aware of the potential hazards and knows what to do in event of an accident or an emergency.

### REGULATORY INFORMATION

General Singapore Factories Act 2000, Sections 14, 34, 44 & 60A  
Singapore Standard:  
CP 12:2000 part 1, CP 98:2003, SS 152:2003, SS 286:1984 Part 1 to Part 5  
Risk and Safety Phrases S51 – Use only in a well ventilated area

### OTHER INFORMATION

Ensure all national/local regulations are observed.  
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