



HELIUM

Material Safety Data Sheet

(Sheet No. 12)

SUPPLIER

Supplier Name: Plusgas P/L
Address: 95 Clydesdale rd Jimboomba Qld 4280
Telephone: (07) 3800 2080
Fax: (07) 5548 7900
Emergency: 24hr EMERGENCY TELEPHONE No. 0421 193 863
EMERGENCY SERVICES: DIAL 000
Website: www.plusgas.com.au

HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

COMPOSITION / INFORMATION ON INGREDIENTS

Product Name: Helium, compressed.
Chemical Name: Helium
Manufacturer's Code:
UN Number: 1046 Helium, compressed
DG Class: 2.2 Non - flammable gas, non-toxic gas
Packaging Group: Not applicable
Subsidiary Risk(s): None
Hazchem Code: 2 (T)
EPG No: 2C2
Poisons Schedule: None assigned
Uses: In balloons and airships, as a diluent for the other gases. In lasers, in welding and also in offshore diving industry.

PHYSICAL DESCRIPTION & PROPERTIES:

Appearance: Colourless, Odourless gas.
Very slightly soluble in water.
Boiling Point: -268.9°C
Melting Point: -272.2°C @ 26 atmospheres
Vapour Pressure: No data found
Volatiles: 100%
Evaporation Rate: Not applicable
Vapour Density: 0.1785g/L @ 0°C and 1 atmosphere
Very much lighter than air
Weight per ml: Not applicable
Flash Point: None
Flammability Limits: None
Auto-Ignition Temperature: None
Other Properties: Almost completely inert. May be absorbed by platinum metal.

INGREDIENTS:

Name:	CAS:	Proportion
Helium	(7440-59-7)	100%

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

Acute:	Swallowed:	Not applicable.
	Skin:	No effects reported.
	Eyes:	No effects reported.
	Inhaled:	Possible physical damage on exposure to high pressure gas stream. Breathing low proportions may change the voice, giving a characteristic "Donald Duck" effect. Simple asphyxiant. May replace oxygen in the atmosphere. Symptoms of approaching asphyxia include accelerated pulse rate, increase in the rate and volume of respiration, decreased ability to think clearly, inattention and loss of muscle coordination. At only 10-14% oxygen, judgement becomes faulty; there may be an inability to feel pain, rapid fatigue. At oxygen levels below 10%, there may be nausea and vomiting, and an inability to move. Below 6% oxygen, breathing is likely to be in gaps, with risk of convulsions. Breathing a pure helium atmosphere may result in immediate loss of consciousness and death within a few minutes.
Chronic:		Breathing atmosphere of very low oxygen (less than 10%) may result in permanent brain damage.
	LD50:	No data found

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Center. Ph: 131 126

Swallowed:	Not applicable.
Skin:	If skin contact occurs with liquid Helium, remove contaminated clothing and flush skin thoroughly with water.
Eyes:	If in the eyes, hold eyes open, flood with water for at least 15 minutes, then see a doctor.
Inhaled:	Remove from exposure, rest and keep warm. If unconscious, assist breathing.

FIRST AID FACILITIES

Recommended:	Oxygen resuscitation equipment. Self contained breathing apparatus, and trained personnel, for rescue operations.
Advice to Doctor:	Treatment for asphyxia. Contact Poisons Information Centre.

PRECAUTIONS FOR USE

EXPOSURE LIMITS

National Occupational Health & Safety Commission (NOHSC) – (Worksafe Australia)	
TLV-TWA:	None assigned. Designated simple asphyxiant. Do not enter atmospheres containing less than 18% oxygen.
TLV-STEL:	None assigned.
Engineering Controls:	Ensure adequate ventilation (same as outdoors) at all times. Consider local mechanical exhaust or forced ventilation if working in enclosed spaces.
Personal Protection:	Do not breathe high vapour levels. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard: Self contained breathing apparatus Positive pressure or Air-fed hood
Flammability:	Not Flammable

SAFETY HANDLING INFORMATION

STORAGE AND TRANSPORT

Storage Temperature:	Room Temperature
UN Class:	2.2 Non Flammable, Non-toxic gas
Packaging Group:	Not applicable
UN Number:	1046 Helium, compressed
EPG Number:	2C1
Correct Shipping Name:	Helium, compressed

SAFETY HANDLING INFORMATION cont.

Observe requirements of The Australian Code for the Transport of Dangerous Goods by Road and Rail. Observe the requirements of State Dangerous Goods (Storage and Handling) Regulations.

SAFETY HANDLING INFORMATION cont.

STORAGE ADVICE

Store cylinders upright in an enclosure, preferably outside of buildings, protected from direct sunlight. Secure cylinders by chains or similar device to prevent falling over. Store cylinders below 45°C. Keep away from flammable or combustible materials. Keep away from vehicular traffic and other thoroughfares. Protect from physical damage. Protect regulators and other fittings from impact.

SPILLS AND DISPOSAL

Disposal of small spillage only

CAUTION: Before dealing with spillage take the necessary protective measures; inform others to keep at a safe distance. Contact supplier for specific assistance. Allow gas to escape to atmosphere, preferably in an open remote location. Prevent vented gas from re-entering ventilation intakes or similar.

FIRE/EXPLOSION HAZARD

Not a fire hazard. Non-flammable gas, may extinguish fire. Heat from a fire may cause cylinder to rupture. Cool cylinders with water, spray from a protected place. Do not approach cylinders that may be hot. Evacuate if cylinders cannot be cooled.

DECOMPOSITION PRODUCTS

Helium

In case of small fire/explosion use:	Water Spray
In case of major emergency:	
Hazchem Code:	2(T)
Extinguishant:	Water fog or fine water spray
Danger of violent reaction or explosion?	No
Protective Clothing:	Breathing apparatus and protective gloves for fire only.
Appropriate Measures:	Dilute
Evacuate?	No

OTHER INFORMATION

Prevent leaking gas from entering drains or sewers.

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