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This SDS conforms to the Globally Harmonised System (GHS), South African Regulations on Hazardous Chemical Agents, and SANS 10234, SANS 11014 & SANS 10228.


## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Helium
<b>Chemical Name</b>	Helium
<b>Other means of identification</b>	MTG SDS 48; HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He; RTECS: MH6520000
<b>Recommended Intended Purpose</b>	The product is used in various applications and may include - Industrial use Medical applications or Diving Gas (Underwater Breathing).
<b>Company Information</b>	<b>Puregas (Pty) Ltd</b> PO Box 123884, Alrode, 1451, Gauteng, South Africa <b>Tel:</b> (011) 903 9760 <b>Fax:</b> (011) 903 9766 <b>Cellphone:</b> 082 889 6946 (1 <sup>st</sup> ) 082 885 7475 (2 <sup>nd</sup> ) <b>Email:</b> <a href="mailto:info@puregas.co.za">info@puregas.co.za</a> <b>Website:</b> <a href="http://www.puregas.co.za">www.puregas.co.za</a>
<b>Emergency Telephone</b>	0800 172 743 Rapid Spill Response - 24 hours, 7 days a week

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance - GHS classification as published through ECHA**

Hazard Classification	Category	Hazard Statement	
Gases under pressure (Comp.)	2.2	H280	Contains gas under pressure; may explode if heated
Hazard Pictograms	<div></div> <div>GHS04</div>		
Signal Word	Warning		
Precautionary Statements			
General:	P101 P102 P103	If medical advice is needed, have product container or label at hand Keep out of reach of children Read carefully and follow all instructions	
Prevention	P202 P271	Do not handle until all safety precautions have been read and understood. Use and store only outdoors or in a well-ventilated place.	
Response		None	
Storage	P403	Store in a well-ventilated place.	
Disposal		None	
Main Hazard	Contains gas under pressure; it may explode if heated.		
Flammability	Non-Flammable		
Other Hazards	May displace oxygen and cause rapid suffocation		

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

CAS No	EC No	Name	%
7440-59-7	231-168-5	Helium, Compressed	99.5 - 100
<b>UN Number:</b>	1046		

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

### SECTION 4. FIRST AID MEASURES

<b>Inhalation</b>	If adverse occurs, remove them to an uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate attention.
<b>Skin contact</b>	Remove contaminated clothing and drench affected skin with plenty of water, then wash with soap and water.
<b>Eye contact</b>	Immediately wash out with plenty of water for 10 to 15 minutes
<b>Ingestion</b>	If a large amount is swallowed: OBTAIN MEDICAL ATTENTION.
<b>Treatment (Advice to doctor)</b>	For Inhalation, consider oxygen.

### SECTION 5. FIRE-FIGHTING MEASURES

<b>Specific Hazards Arising from the Chemical</b>	Negligible fire hazard. Containers may rupture or explode when heated.
<b>Extinguishing Media</b>	Use extinguishing agents appropriate for surrounding fires. Large fires use water spray to keep containers cool.
<b>Unsuitable Extinguishing Media</b>	None known
<b>Protective Equipment and Precaution for Firefighters</b>	Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.
<b>Fire Fighting Measures</b>	Move the container from the fire area if it can be without risk. Cool the container with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from the venting safety device or any discoloration of tanks due to fire. For a tank, rail car, or tank truck, evaluate the radius: of 800 meters
<b>Hazardous Combustion Products</b>	Not applicable

### SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Wear personal protective clothing and equipment, see Section 8
<b>Environmental Precautions</b>	Avoid release to the environment.
<b>Methods for Containment</b>	Do not extinguish, unless leaks can be stopped safely. Reduce vapors with water spray. Eliminate all ignition sources if it is safe to do so. Keep unnecessary people away. Isolate the hazard area and deny entry.
<b>Cleanup Methods</b>	Avoid heat, flames, sparks, and other sources of ignition. Ventilate closed spaces before entering. Damaged cylinders should be handled only by specialists.

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## SECTION 7. HANDLING AND STORAGE

<b>Handling Procedures</b>	Avoid breathing gas. Use only adequate ventilation.
<b>Storage Procedures</b>	Store and handle in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated area. Subject to storage regulations: Keep separated from incompatible substances.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION


No exposure limits available	
<b>Eye protection</b>	Wear safety glasses with side shields.
<b>Skin and body protection</b>	Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed.
<b>Hand protection</b>	Wear appropriate chemical gloves during cylinder changeout or wherever contact with the product is possible.
<b>Respiratory protection</b>	When workplace conditions warrant respirator use, follow a respiratory protection program. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA)
<b>Engineering Controls</b>	Provide local exhaust or enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Colourless gas
Colour	Colourless
Odour	odourless
Taste	Tasteless
pH	None
Melting point	- 272°C @26 atm
Boiling / Freezing point	269 °C
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Flammability (solid, gas)	Not flammable
Vapour Density (air=1)	0.138
Solubility : Water	0.94 % @ 0°C
Vapor Pressure	1719 mmhg @ -268 °C
Density	0.1785 g/l # -268 °C
Viscosity	0.02012 cP @ 26.8 °C

## SECTION 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable at normal temperature and pressure.
<b>Conditions to Avoid</b>	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Avoid inhalation of material or combustion by-products.
<b>Possibility of Hazardous Reactions</b>	Will not polymerize
<b>Incompatible Materials</b>	No data available.
<b>Decomposition Products</b>	Not Applicable

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

<b>Acute toxicity:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified

## SECTION 12. ECOLOGICAL INFORMATION

No ecological damage was caused by this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods:

For emergency disposal, discharge slowly to the atmosphere in a well-ventilated area or outdoors.

**Packaging:** The disposal of cylinders must only be handled by the gas supplier

## SECTION 14. TRANSPORT INFORMATION

### UN Pictogram



### Land and inland navigation transport ADR/RID

UN No. 1046, Shipping Name Helium, Class 2.2, Subsidiary Risk Non-flammable, non-toxic gases, Hazchem Warning 2 Non-flammable Gas.

### Marine transport IMDG

MDG 1046, Shipping Name Helium, Class 2.2, Subsidiary Risk Non-flammable, non-toxic gases, Label Non-flammable Gas.

### Air transport ICAO/IATA-DGR

ICAO/IATA Code 1046, Class 2.2

### Special precautions for user

The protective measures listed in Sections 6, 7, and 8 of the Safety Data Sheet have to be considered.

## SECTION 15. REGULATORY INFORMATION

### Safety, health, and environmental regulations/legislation specific to the substance or mixture:

Occupational Health and Safety Act, Hazardous Chemical Agents Regulations

SANS 11014:2010 Edition 1

SANS 10228:2012 Edition 6

SANS 10234:2019 Edition 2

SUPPLEMENT TO SANS 10234 Edition 1


National Road Traffic Act

Dangerous Goods Regulations

## SECTION 16. OTHER INFORMATION

### SELECTED BIBLIOGRAPHY

1. Data sheets as supplied by various Suppliers and Manufacturers
2. Emergency Response Handbook - Annex A of SABS 0232-3
3. GHS Purple booklet
4. ECHA
5. Occupational Health and Safety Act, Hazardous Chemical Agents Regulations
6. SANS 11014:2010 Edition 1

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7. SANS 10228:2012 Edition 6
8. SANS 10234:2019 Edition 2
9. SUPPLEMENT TO SANS 10234 Edition 1
10. National Road Traffic Act
11. Dangerous Goods Regulations

*Disclaimer:*

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*