

# Safety Data Sheet

Helium, compressed

US Cylinder Gas  
Alsip, IL



## Section 1: Product and Company Identification

**US Cylinder Gas**  
Alsip, IL

Product Code: **Helium**

Part Number: 7440-59-7

**Synonyms:** HE, HEL, HEL219, HEL262, HELUHPT, HEL110, Balloon Grade Helium

**Recommended Use:** Industrial use. Medical applications. Diving Gas (Underwater Breathing). Use as directed.

**Usage Restrictions:**

## Section 2: Hazards Identification



**Warning**

Hazard Classification:

Gases Under Pressure, H280  
Simple Asphyxiant, OSHA-H01

Hazard Statements:

H280: Contains gas under pressure; may explode if heated  
OSHA-H01: MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

Precautionary Statements

P202: Do not handle until all safety precautions have been read and understood.  
P271+P403: Use and store only outdoors or in a well-ventilated place.  
CGA-PG02: Protect from sunlight when ambient temperature exceeds 52C (125F).  
CGA-PG05: Use a back flow preventive device in the piping.  
CGA-PG06: Close valve after each use and when empty.  
CGA-PG10+CGA-PG20: Use only with equipment of compatible materials of construction and rated for cylinder pressure.  
CGA-PG12: Do not open valve until connected to equipment prepared for use.  
CGA-PG27: Read and follow the Safety Data Sheet (SDS) before use.

### Section 3: Composition/Information on Ingredients

**CAS #**

7440-59-7

Chemical Substance	Chemical Family	Trade Names
HELIUM	Inorganic gases	HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He

### Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

### Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Non-flammable. use suitable extinguishing media for surrounding fire.	Non-flammable	<ul style="list-style-type: none"><li>Non-flammable</li><li>non-flammable</li></ul>

### Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Avoid soil, waterways, drains and sewers	Stop leak if possible without personal risk.

Methods for Cleanup	Other Information
Stop leak, evacuate area. Contact emergency personnel.	None

### Section 7: Handling and Storage

Handling	Storage
Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.

### Section 8: Exposure Controls/Personal Protection

**Exposure Guidelines**

HELIUM: ACGIH (simple asphyxiant)

**Engineering Controls**

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Eye protection not required, but recommended.	Protective clothing is not required. Protective gloves are not required.	Non-flammable

## General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor
Gas	Colorless	Colorless	N/A	Gas	Odorless

Taste	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits
Tasteless	Not flammable	Not available	Not available	Nonflammable	Nonflammable

Lower Explosive Limits	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity
Nonflammable	-452 F (-269 C)	-458 F (-272 C) @ 26 atm	1719 mmHg @ -268 C	0.138 (Air=1)	Not applicable

Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity	Molecular Weight
0.94% @ 0 C	Not applicable	Not available	Not applicable	0.02012 cP @ 26.8 C	4.0026

Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
He	0.1785 g/L @ 0 C	Not available	100%	Not applicable	Insoluble : Not available

## Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure.	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Keep liquid helium from contact with air.	No data available.

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Miscellaneous decomposition products	Will not polymerize.

## Section 11: Toxicology Information

### Acute Effects

Oral LD50	Dermal LD50	Inhalation
Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, fatigue, dizziness, disorientation, emotional disturbances, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

Eye Irritation	Skin Irritation	Sensitization
Liquid: frostbite, blurred vision	Liquid: frostbite	Difficulty breathing

### Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not available	Not available	Not available	No data

## Section 12: Ecological Information

### Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available

## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Helium, compressed	UN1046	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A

### Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Helium, compressed	UN1046	2.2	Not applicable

## Section 15: Regulatory Information

### U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated.	Not regulated.	Not regulated.

### SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	No	No	No	Yes

### SARA 372.65

Not regulated.

### OSHA Process Safety

Not regulated.

### State Regulations

#### CA Proposition 65

Not regulated.

### Canadian Regulations

#### WHMIS Classification

A

### National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.

### Section 16: Other Information

NFPA Rating
HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard