



ACCORDING TO US CFR 1910.1200

**1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

## 1.1 Product identifier

Product Name	HELIUM, COMPRESSED
Synonym(s)	HELIUM, TECHNICAL
CAS No.	7440-59-7
EC No.	231-168-5

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Industrial gas.
Uses Advised Against	Not known.

## 1.3 Details of the supplier of the safety data sheet

Company Identification	Hudson Technologies Company
Address	PO Box 1541 One Blue Hill Plaza Pearl River, New York USA
Postal code	10965
Telephone	+1 (800) 953 2244
Fax	+1 (845) 512 6070
E-mail	<a href="mailto:information@hudsontech.com">information@hudsontech.com</a>

## 1.4 Emergency telephone number

Company	+1 (800) 501 4376
CHEMTREC (U.S.)	+1 (800) 424 9300
INTERNATIONAL	+1 (703) 527 3887

## 2. SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

US CFR 1910.1200 Gases under pressure; Press. Gas; Compressed gas.

### 2.2 Label elements

Product Name HELIUM, COMPRESSED

### Hazard Pictogram(s)



GHS04

### Signal Word(s)

Warning.

### Hazard Statement(s)

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

### Precautionary Statement(s)

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.  
P304, P340, P313: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.  
CGA-PG05: Use a back flow preventive device in the piping.  
CGA-PG10: Use only with equipment rated for cylinder pressure.  
CGA-PG06: Close valve after each use and when empty.  
P410+P403: Protect from sunlight. Store in a well-ventilated place.

### 2.3 Other hazards

May cause asphyxiation when concentrations are sufficient to reduce oxygen below safe breathing levels.

### 2.4 Additional Information

CGA-PG02: Protect from sunlight when ambient temperature exceeds 52 °C (125 °F).  
CGA-PG27: Read and follow the Safety Data Sheet (SDS) before use.

This SDS is available in languages other than English.

**3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENT(S)	CAS No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Helium	7440-59-7	100	Press. Gas, Compressed gas; H280	GHS04

**4. SECTION 4: FIRST AID MEASURES**

4.1 Description of first aid measures

Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if necessary. If breathing has stopped, apply artificial respiration.
Skin Contact	Wash skin with water.
Eye Contact	Flush eyes with water for at least 15 minutes.
Ingestion	Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: High concentrations: Loss of coordination, Unconsciousness.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

**5. SECTION 5: FIREFIGHTING MEASURES**

Non-flammable.

5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.

Unsuitable extinguishing media None known.

5.2 Special hazards arising from the substance or mixture

Contains gas under pressure; may explode if heated.

### 5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions. Keep containers cool by spraying with water if exposed to fire.

## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Ensure adequate ventilation. Avoid breathing gas.  
Wear suitable respiratory protection.

### 6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses.

### 6.3 Methods and material for containment and cleaning up

Stop leak if safe to do so. Allow small spillages to evaporate provided there is adequate ventilation. Ventilate area.

### 6.4 Reference to other sections

See Also Section 8, 13.

## 7. SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Provide adequate ventilation. Avoid breathing gas. Wear suitable respiratory protection. Do not drag, roll, slide or drop cylinders. Use a suitable hand truck design for cylinder movement. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object into valve cap openings. Doing so may damage valve causing a leak to occur. Secure cylinders in an upright position at all times, close all valves when

not in use. Keep closed even when empty. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

	Protect from sunlight. Store in a well-ventilated place.
Storage temperature	< 125 °F (52 °C)
Storage life	Stable under normal conditions.
Incompatible materials	None.

**8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

Occupational Exposure Limits    None assigned.

8.2 Exposure controls

Appropriate engineering controls    Ensure adequate ventilation.

Personal protection equipment



Eye Protection

Wear suitable eye/face protection.



Skin protection

Wear suitable gloves.



Respiratory protection

Wear suitable respiratory protective equipment if exposure to high levels of material is likely.

Thermal hazards    Not applicable.

**9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties

Appearance    Gas.

	Color: Colorless.
Odor	Odorless.
Odor threshold	Not established.
pH	Not applicable.
Melting point/freezing point	-457.87 °F (-272.15 °C)
Initial boiling point and boiling range	-452.02 °F (-268.9 °C)
Critical Temperature	-450.4 °F (-268.0 °C)
Flash Point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapor pressure	Not available.
Vapor density	0.138 @ 32 °F (0 °C)
Relative density	Not available.
Solubility(ies)	Solubility (Water): Slightly soluble. (2.5 mg/l @ 69.8 °F) Solubility (Other): Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature (°C)	Not available.
Dynamic viscosity	0.025 mPa•s
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
9.2 Other information	
Molecular weight	4 g/mol

## 10. SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under normal conditions.

### 10.2 Chemical Stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

### 10.4 Conditions to avoid



Keep away from heat and direct sunlight.

#### 10.5 Incompatible materials

None known.

#### 10.6 Hazardous decomposition product(s)

No hazardous decomposition products known.

### 11. SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity.
Acute toxicity - Skin Contact	Low acute toxicity.
Acute toxicity - Inhalation	Low acute toxicity.
Skin corrosion/irritation	Contact with rapidly expanding gas may cause burns or frostbite.
Serious eye damage/irritation	Contact with rapidly expanding gas may cause burns or frostbite.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	None anticipated.
STOT - repeated exposure	None anticipated.
Aspiration hazard	Not classified.

#### 11.2 Other information

Not known.

### 12. SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment	Not classified.
Compartment	
Toxicity - Terrestrial	Not classified.
Compartment	

#### 12.2 Persistence and Degradation

Helium is an inert gas. No adverse ecological effects are expected.

#### 12.3 Bioaccumulative potential

Helium is an inert gas. No adverse ecological effects are expected.

12.4 Mobility in soil

Not applicable.

12.5 Other adverse effects

None anticipated.

**13. SECTION 13: DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods

Containers must not be punctured or destroyed by burning, even when empty. Refer to manufacturer/supplier for information on recovery/recycling.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

**14. SECTION 14: TRANSPORT INFORMATION**

14.1 UN number

UN No. 1046

14.2 UN proper shipping name

UN proper shipping name HELIUM, COMPRESSED

14.3 Transport hazard class(es)

ADR/RID Class 2.2  
 IMDG Class 2.2  
 IMDG EMS Not available.

ICAO/IATA

Excepted Quantities E1  
 Passenger and Cargo Aircraft 75KG

Limited Quantities

Cargo Aircraft Limited Quantities 150KG

Special Provisions A69

Emergency Response 2L

Guidebook (ERG) Code

ADR Classification Code 1A

ADR HIN 20

ADR Transport Category 3



Tunnel Restriction Code E  
 Emergency Action Code 2T  
 Advice on Additional Personal Protection (APP) Not applicable.  
 14.4 Packing group  
 Packing group Not applicable.  
 Labels 2.2



Special Provisions 653  
 Limited Quantities 120 m  
 Excepted Quantities E1

Mixed Packing Instructions for Packages P200  
 Special Packing Provisions for Packages Not applicable.

Mixed Packing Instructions for Packages MP9

14.5 Environmental hazards  
 Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user  
 Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
 Packing Instructions for Portable (M)

Tanks  
 Special Provisions for Portable Tanks Not applicable.

Tanks  
 Tank Code for Tanks CxBN(M)

Special Provisions for Tanks TA4 TT9  
 Vehicle for Tank Carriage AT

Special Provisions for Carriage - Packages Not applicable.

Special Provisions for Carriage - Bulk Not applicable.



Special Provisions for Carriage - CV9 CV10 CV36

Loading, Unloading and Handling

Special Provisions for Carriage - Not applicable.

Operation

## 15. SECTION 15: REGULATORY INFORMATION

### 15.1 Federal

Toxic and hazardous substances Not listed.

(29 CFR 1910; Subpart Z )

National emission standards for Not listed.

hazardous air pollutants (40 CFR

61.01)

Title III Consolidated List of Lists Not listed.

TSCA (Toxic Substance Control Helium (CAS No.: 7440-59-7)

Act)

CAA 602 - Ozone Depleting Not listed.

Substances (ODS)

### 15.2 State

State Right to Know Lists Listed in: New Jersey, Pennsylvania, Rhode Island, Minnesota.

Proposition 65 (California) Not listed.

### 15.3 Other

OSPAR List of Chemicals for Not listed.

Priority Action

NTP (National Toxicology Not listed.

Program)

OSHA Not listed.

(List of Highly Hazardous

Chemicals, Toxics and

Reactives)

IARC (International Agency for Not listed.

Research on Cancer)

## 16. SECTION 16: OTHER INFORMATION

The following sections contain 1-16.  
revisions or new statements:

NFPA		HMIS	
Health	0	Health	0
Fire	0	Flammability	0
Instability	0	Physical hazards	3

LEGEND:

Hazard Pictogram(s)



GHS04

Hazard Statement(s)

H280: Contains gas under pressure; may explode if heated.

Precautionary Statement(s)

P410+P403: Protect from sunlight. Store in a well-ventilated place.

Additional Information required by Federal Standard 313 Rev. E:

Contract or Solicitation Number: SPE4A6-16-D-0226

Primary Contractor: Hudson Technologies, Inc.

Primary Contractor CAGE: 7DSQ0

National Stock Number (NSN): 6830007822656

Specification Reference:

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SAFETY DATA SHEET

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