



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Helium, compressed**

Chemical formula : He

Synonyms : Helium gas; Helium compressed; Helium-4; Atomic Helium; He; UN 1046

Company

Telephone

Emergency

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Helium, compressed	7440-59-7	100%

3. Hazards Identification

Emergency Overview

May cause difficulty in breathing.
Containers may rupture or explode if exposed to heat.

Potential Health Effects

Inhalation : Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, fatigue, dizziness, disorientation, emotional disturbances, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma.

Eye contact : Frostbite, blurred vision.

Skin contact : Frostbite.

Ingestion : Ingestion of a gas is unlikely.

Chronic Health : None.

Hazard

4. First Aid Measures

General advice : None.

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Skin contact : Wash exposed skin with soap and water.

Ingestion : If a large amount is swallowed, get medical attention.

Inhalation : 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.

5. Fire-Fighting Measures

- Suitable extinguishing media : Use extinguishing agents appropriate for surrounding fire.
 Large fires: Use water spray to keep containers cool.
- Specific hazards : Negligible fire hazard. Containers may rupture or explode if exposed to heat.
- Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tanks, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

6. Accidental Release Measures

- Personal precautions : None.
- Environmental precautions : None.
- Methods for cleaning up : Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.
- Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

Storage

Store in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated area. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH, OSHA and NIOSH have not developed exposure limits for any of this product's components.

Engineering measures

Provide local exhaust or process enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Personal protective equipment

- Respiratory protection : Under conditions or frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
 For unknown concentrations or immediately dangerous to life or health – Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or positive-pressure mode.
- Hand protection : Protective gloves are not required.
- Eye protection : Eye protection not required, but recommended.
- Skin and body protection : Protective clothing is not required.

9. Physical and Chemical Properties

Form : Gas.
Color : Colorless.
Odor : Odorless.
Molecular weight : 4.0026
Vapor pressure : 1719 mmHg @ -268°C
Vapor density : 0.138 (air = 1)
Specific gravity : Not applicable.
Boiling point : -452°F (-269°C)
Freezing point : -456.5°F (-271.3°C)
Water solubility : 0.94% @ 0°C
Evaporation rate : Not applicable.

10. Stability and Reactivity

Stability : Stable at normal temperature and pressure.
Conditions to avoid : Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Avoid inhalation of material or combustion by-products.
Materials to avoid : No data available.
Hazardous decomposition products : None.

11. Toxicological Information

Acute Health Hazard

Ingestion : Not available.
Inhalation : Not available.
Skin : Not available.

12. Ecological Information

Not available.

13. Disposal Considerations

Waste from residues / unused products : Dispose in accordance with all applicable regulations.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Helium, compressed
Class : 2.2
UN/ID No. : UN1046
Labeling : Non-flammable Gas

Further information

Cylinders should be transported in a secure upright position in a well ventilated truck.

15. Regulatory Information

U.S. Federal Regulations

None of these product components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312

Acute: Yes
Chronic: No
Fire: No
Reactive: No
Pressure: Yes

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA or RI.
Not regulated under California Proposition 65.

16. Other Information

Prepared by