SAFETY DATA SHEET Helium

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Code:

Product Name: Helium

Company Name: Gas Innovations

18005 E. Hwy 225 La Porte, TX 77571

Web site address: www.gasinnovations.com Phone Number: +1 (281)471-2200

Emergency Contact: 3E (within United States) +1 (866)303-2640

Industrial Use +1 (352)323-3500

2. HAZARDS IDENTIFICATION		
Flammable Gases:		
Gas Under Pressure:	Compressed gas	
Symbol:		
GHS Signal Word:	Warning	
GHS Hazard Phrases:	H280 - Contains gas under pressure; may explode if heated.	
	May displace oxygen and cause rapid suffocation.	
GHS Precaution Phrases:	None needed according to classification criteria.	
GHS Response Phrases:	None needed according to classification criteria.	
GHS Storage and Disposal	Protect from sunlight. Store in a well-ventilated place.	
Phrases:	Dispose in accordance with all applicable regulations.	
Hazard Rating System:	Flammability Health Instability	
NFPA:	Special Hazard	

3. COMPOSITION/INFORMATION ON INGREDIENTS		
CAS#	Hazardous Components (Chemical Name)	Concentration
7440-59-7	Helium	100 %

	4. FIRST AID MEASURES
Emergency and First Aid Procedures:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
In Case of Inhalation:	If breathed in, move a person into fresh air. If not breathing gives artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Consult a physician.
In Case of Skin Contact:	Wash skin with soap and water. If skin irritation occurs, get medical advice/attention. If frostbite or freezing occurs, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO

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	NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets.
In Case of Eye Contact:	Immediately flush your eyes with plenty of water for at least 15 minutes. Hold eyelids apart and flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.
In Case of Ingestion:	Not expected to be a primary route of exposure. If swallowed, get medical attention.

5. FIRE FIGHTING MEASURES		
Suitable Extinguishing Media:	Use extinguishing agents appropriate for surrounding fire.	
Fire Fighting Instructions:	Evacuate all personnel from the danger area. 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. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Reduce gas with fog or fine water spray. Shut off source of gas flow if safe to do so. Ventilate area or move container to a well-ventilated area.	
Flammable Properties and Hazards:	Negligible fire hazard. Containers may rupture or explode if exposed to heat.	

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions,	Use proper personal protective equipment as indicated in Section 8. Prevent from entering
Protective Equipment and	sewers, basements and work pits, or any place where its accumulation can be dangerous.
Emergency Procedures:	
Environmental Precautions:	Prevent further leakage or spillage if safe to do so.
Steps To Be Taken in Case Material Is Released or Spilled:	Do not touch or walk through spilled material. Stop leaks, if possible, without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Use water spray to reduce vapor or divert vapor cloud drift. Do not direct water at spill or source of leak. If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Ventilate closed spaces before entering.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:

Keep away from heat, sparks and flames. Keep away from sources of ignition - No smoking. Use spark-proof tools and explosion proof equipment. Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Damaged cylinders should be handled only by specialists. Never attempt to lift a cylinder with its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. Replace valve outlet caps or plugs, and container caps were supplied as soon as container is disconnected from equipment. Never attempt to transfer gases from one container to another.

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Precautions To Be	Store only where temperature will not exceed 125°F (52°C). Post "No Smoking or Open Flames" signs
Taken in Storing:	in storage and use areas. There must be no sources of ignition. Separate packages and protect
	against potential fire and/or explosion damage following appropriate codes and requirements (e.g.,
	NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined
	by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling
	or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the
	container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory
	system to prevent storing full containers for long periods. Stored containers should be periodically
	checked for general condition and leakage.
Other Precautions:	When handling a product under pressure, use piping and equipment adequately designed to withstand
	the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive
	device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; stored and
	use with adequate ventilation. If a leak occurs, close the container valve and blow down the system
	in a safe and environmentally correct manner in compliance with all international, federal/national,
	state/provincial, and local laws; then repair the leak. Never place a container where it may become
	part of an electrical circuit. Containers should not be stored in conditions likely to encourage corrosion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION					
CAS#	Partial Chemical Name		OSHA TWA	ACGIH TWA	NIOSH IDLH
7440-59-7	Helium				
Respiratory E Type):	equipment (Specify	Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Keep self-contained breathing apparatus readily available for emergency use.			
		Wear safety glasses when handling cylinders, vapor-proof goggles and a face shield during cylinder change out or whenever contact with product is possible.			
Protective Gloves:		Wear neoprene gloves during cylinder change out or wherever contact with product is possible.			
Other Protective Clothing: Wear metatarsal shoes for cylinder handling, and protective clothing where nee		protective clothing where needed.			
		Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits. Oxygen detectors should be used when asphyxiating gases may be released.			
Hygiene:	/giene: Specific risk management measures are not required beyond good industrial hand safety procedures. Do not eat, drink or smoke when using the product.		. , ,		

9. PHYSICAL AND CHEMICAL PROPERTIES		
Physical States:	[X] Gas [] Liquid [] Solid	
Appearance and Odor:	Colorless & Odorless Gas.	
Critical pressure:	NA	
Log Pow:	NA	
Melting Point:	-272 °C at 26 Atm (-458 °F)	
Boiling Point:	-269 °C (-452 °F)	
Decomposition Temperature:	No data available	
Autoignition Pt:	NA	
Flash Pt:	NA	
Method used:	Not Applicable	
Explosive Limits:	NA	
Specific Gravity (Water = 1):	NA	
Vapor Pressure (vs. Air or mm Hg):	NA	
Vapor Density(air=1)	0.138	
Evaporation Rate:	No data.	

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Solubility in Water:	0.94 % at 0 °C
pH:	NA
Percent Volatile:	No data.
Molecular Formula:	He
Molar mass:	4 g/mol

10. STABILITY AND REACTIVITY		
Reactivity:	No reactivity hazard is expected.	
Stability:	Unstable [] Stable [X]	
Conditions To Avoid - Instability:	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.	
Incompatibility Materials to Avoid:	No reaction with any common materials in dry or wet conditions.	
Hazardous Decomposition or Byproducts:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.	
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]	
Conditions To Avoid - Hazardous Reactions:	No data available.	

11. TOXICOLOGICAL INFORMATION		
Acute Toxicity	No data available.	
Irritation / Corrosion	No animal testing data available for skin or eyes.	
Sensitization	No data available.	
Mutagenicity	No data available.	
Reproductive toxicity:	No data available.	
Teratogenicity:	No data available.	
Specific target organ toxicity (Single	No data available.	
Exposure)		
Specific target organ toxicity	No data available.	
(Repeated Exposure)		
Aspiration Hazard:	No data available.	

12. ECOLOGICAL INFORMATION

General Ecological Information:	n: Classification criteria are not met.	
Persistence and Degradability: Not applicable to gases and gas mixtures.		
Bio accumulative Potential: The subject product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.		
Mobility in Soil:	Because of its high volatility, the product is unlikely to cause ground or water pollution.	

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Do not attempt to dispose of residual or unused quantities. Return container to supplier.
Waste Disposal Metrica.	Dispose of contents/containers in accordance with local/regional/national/international
	regulations. Do not discharge into any place where its accumulation could be dangerous.
	Vent to atmosphere in a well-ventilated place.

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14. TRANSPORT INFORMATION				
LAND TRANSPORT (US DOT):				
DOT Proper Shipping name:	HELIUM, COMPRESSED			
DOT Hazard Class:	2			
UN/NA number:	UN 1046			
Sea Transport:				
Transport document description (IMDG):				
UN-No. (IMDG):	UN 1046			
Proper Shipping Name (IMDG):	HELIUM, COMPRESSED			
Class:	2.2			
Air Transport:				
Transport document description (IATA):				
UN-No. (IATA):	UN 1046			
Proper Shipping Name (IATA):	Helium, compressed			
Class:	2.2			
15. REGULATORY INFORMATION				

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7440-59-7	Helium			
CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists		
7440-59-7	Helium	CA: No; MA: Yes; MN: Yes; NJ: Yes; PA: Yes;		
CAS#	Hazardous Components (Chemical Name)	International Regulatory Lists		
7440-59-7	Helium	AU: Yes; PH: Yes; JP-ISHL: No; JP – ENCS: Yes.		
	KR KECI -ANNEX 1: Yes; KR KECI -ANNEX 2: NO.		CI -ANNEX 2: NO.	
		KR – REACH CO	CA: No; CN: Yes; N	IZ: Yes; MX: Yes; TW: Yes.
		TH – TECI: Yes;	VN(Draft): Yes;	
46 OTHER INFORMATION				

16.OTHER INFORMATION

Revision Date:	08/15/2024		
Additional Information	No data available.		
About This Product:			
NFPA Ratings:	0= Minimal Hazard		
	1= Slight Hazard		
	2= Moderate Hazard		
	3= Serious Hazard		
	4= Severe Hazard		
Company Policy or	The information, recommendations, and suggestions herein were compiled from reference		
Disclaimer:	material and other sources believed to be reliable. However, the SDS's accuracy or		
	completeness is not guaranteed by Gas Innovations or its affiliates, nor is any responsibility		
	assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since		
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	handling procedures should be provided to handlers and users.		