

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Helium, compressed

Chemical formula	He
CAS number	7440-59-7
Transport identifier	UN 1046

1.2 Relevant identified uses

Industrial and professional uses, including inerting, purging, shielding, laboratory, calibration and electronic-component manufacturing applications. Perform a task-specific risk assessment before use.

Uses advised against	Intentional inhalation and any use not supported by a task-specific risk assessment.
----------------------	--

1.3 Supplier

SG TRADING L.L.C-FZ

Address	Meydan Grandstand, 6th Floor, Meydan Road, Nad Al Sheba, Dubai, United Arab Emirates
Telephone	+971 4 422 4811
Email	info@sgtrading.biz
Website	https://www.sgtrading.biz

1.4 Emergency and safety contact (WhatsApp)

+1 832 525 5066, available 07:00–22:00 (UTC+3).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards Gases under pressure	Compressed gas H280
---------------------------------------	---------------------

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) :

GHS04

Signal word (CLP)	Warning
Hazard statements (CLP)	H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP)

- Storage : P403 - Store in a well-ventilated place.

Supplemental information	Do not inhale product on purpose because of the risk of asphyxiation.
--------------------------	---



Gas cylinder

2.3. Other hazards

Asphyxiant in high concentrations. Not classified as PBT or vPvB. Not classified as PMT or vPvM. The substance / mixture has no endocrine disrupting properties

SECTION 3: Composition/information on ingredients

3.1. Substances

Name % Product identifier Classification according to Regulation (EC) No. 1272/2008 [CLP]

Helium 100 CAS-No.	7440-59-7
EC-No.	231-168-5
EC Index-No.	---
REACH registration No	*1 Press. Gas (Comp.), H280

Contains no other components or impurities which will influence the classification of the product.

*1	Listed in Annex IV / V REACH, exempted from registration.
*3	Registration not required: Substance manufactured or imported < 1t/y.

3.2. Mixtures Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.
- Skin contact : Adverse effects not expected from this product.
- Eye contact : Adverse effects not expected from this product.
- Ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. See section 11.

4.3. Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray or fog. Product does not burn, use fire control measures appropriate for the surrounding fire.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products	None.

5.3. Advice for firefighters

Specific methods	Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems. If possible, stop flow of product. Use water spray or fog to knock down fire fumes if possible. Move containers away from the fire area if this can be done without risk.
Special protective equipment for fire fighters	In confined space use self-contained breathing apparatus. Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters. Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask. Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Act in accordance with local emergency plan. Try to stop release. Evacuate area. Ensure adequate air ventilation. Stay upwind. See section 8 of the SDS for more information on personal protective equipment.
For emergency responders	Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Oxygen detectors should be used when asphyxiating gases may be released. See section 5.3 of the SDS for more information.

6.2. Environmental precautions

Try to stop release.

6.3. Methods and material for containment and cleaning up

Ventilate area.

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe use of the product	The product must be handled in accordance with good industrial hygiene and safety procedures. Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief device(s) in gas installations. Ensure the complete gas system was (or is regularly) checked for leaks before use. Do not smoke while handling product. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Avoid suck back of water, acid and alkalis. Do not breathe gas. Avoid release of product into work area.
Safe handling of the gas receptacle	Refer to supplier's container handling instructions. Do not allow backfeed into the container. Protect containers from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. If user experiences any difficulty operating valve discontinue use and contact supplier. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Keep container valve outlets clean and free from contaminants particularly oil and water. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one cylinder/container to another. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the content of the container. Suck back of water into the container must be prevented. Open valve slowly to avoid pressure shock.

7.2. Conditions for safe storage, including any incompatibilities

Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Container valve guards or caps should be in place. Containers should be stored in the vertical position and properly secured to prevent them from falling over. Stored containers should be periodically checked for general condition and leakage. Keep container below 50°C in a well ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL (Occupational Exposure Limits) None available.

DNEL (Derived-No Effect Level) None available.

PNEC (Predicted No-Effect Concentration) None available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Oxygen detectors should be used when asphyxiating gases may be released. Consider the use of a work permit system e.g. for maintenance activities.

8.2.2. Individual protection measures, e.g. personal protective equipment

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered: PPE compliant to the recommended EN/ISO standards should be selected.

- **Eye/face protection** Wear safety glasses with side shields. Standard EN 166 - Personal eye-protection - specifications. • Skin protection
- **Hand protection** : Wear working gloves when handling gas containers. Standard EN 388 - Protective gloves against mechanical risk, performance level 1 or higher.
- **Other** : Wear safety shoes while handling containers. Standard EN ISO 20345 - Personal protective equipment - Safety footwear.
- **Respiratory protection** Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask. Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.
- **Thermal hazards** None in addition to the above sections.

8.2.3. Environmental exposure controls

None necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

- Physical state at 20°C / 101.3kPa : Gas.
- Colour : Colourless.

Odour No odour warning properties. Odour threshold is subjective and inadequate to warn of overexposure.

Melting point / Freezing point -272 °C

Boiling point -269 °C

Flammability Non flammable.

Lower explosion limit Not available

Upper explosion limit Not available

Flash point Not applicable for gases and gas mixtures.

Auto-ignition temperature Non flammable.

Decomposition temperature Not applicable.

pH Not applicable for gases and gas mixtures.

Viscosity, kinematic No reliable data available.

Water solubility [20°C] 1.5 mg/l

Partition coefficient n-octanol/water (Log Kow)	Not available
--	---------------

Vapour pressure [20°C]	Not applicable.
-------------------------------	-----------------

Vapour pressure [50°C]	Not applicable.
-------------------------------	-----------------

Density and/or relative density	Not applicable.
--	-----------------

Relative vapour density (air=1)	0.14
--	------

Particle characteristics	Not applicable.
---------------------------------	-----------------

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	Not applicable.
-----------------------------	-----------------

Explosion limits	Non flammable.
-------------------------	----------------

Oxidising properties	Not applicable.
-----------------------------	-----------------

Critical temperature [°C]	-268 °C
----------------------------------	---------

9.2.2. Other safety characteristics

Molar mass	4 g/mol
-------------------	---------

Evaporation rate	Not applicable for gases and gas mixtures.
-------------------------	--

Gas group	Compressed gas.
------------------	-----------------

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

No reactivity hazard other than the effects described in sub-sections below.

Stable under normal conditions.

None.

Avoid moisture in installation systems.

For additional information on compatibility refer to ISO 11114.

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	No known toxicological effects from this product.
-----------------------	---

Skin corrosion/irritation	No known effects from this product.
----------------------------------	-------------------------------------

Serious eye damage/irritation	No known effects from this product.
--------------------------------------	-------------------------------------

Respiratory or skin sensitisation	No known effects from this product.
--	-------------------------------------

Germ cell mutagenicity	No known effects from this product.
-------------------------------	-------------------------------------

Carcinogenicity	No known effects from this product.
------------------------	-------------------------------------

Toxic for reproduction	Fertility : No known effects from this product.
-------------------------------	---

Toxic for reproduction	unborn child : No known effects from this product.
-------------------------------	--

STOT-single exposure	No known effects from this product.
STOT-repeated exposure	No known effects from this product.
Aspiration hazard	Not applicable for gases and gas mixtures.

11.2. Information on other hazards

The substance does not have endocrine disrupting properties for human health

SECTION 12: Ecological information

12.1. Toxicity

Assessment	No ecological damage caused by this product.
EC50 48h - Daphnia magna [mg/l]	No data available.
EC50 72h - Algae [mg/l]	No data available.
LC50 96 h - Fish [mg/l]	No data available.

12.2. Persistence and degradability

Assessment	No ecological damage caused by this product.
-------------------	--

12.3. Bioaccumulative potential

Assessment	No ecological damage caused by this product.
-------------------	--

12.4. Mobility in soil

Assessment	No ecological damage caused by this product.
-------------------	--

12.5. Results of PBT and vPvB assessment

Assessment	Not classified as PBT or vPvB.
-------------------	--------------------------------

12.6. Endocrine disrupting properties

Assessment	Asphyxiant in high concentrations. Not classified as PBT or vPvB. Not classified as PMT or vPvM. The substance / mixture has no endocrine disrupting properties
-------------------	---

12.7. Other adverse effects

Other adverse effects	No known effects from this product. Not classified as PMT or vPvM
Effect on the ozone layer	No effect on the ozone layer.
Effect on global warming	None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

List of hazardous waste codes (from Commission Decision 2000/532/EC as amended)

13.2. Additional information

May be vented to atmosphere in a well ventilated place. Do not discharge into any place where its accumulation could be dangerous. Return unused product in original container to supplier.

: 16 05 05 Gases in pressure containers other than those mentioned in 16 05 04.

External treatment and disposal of waste should comply with applicable local and/or national regulations.

SECTION 14: Transport information

14.1. UN number or ID number

In accordance with ADR / RID / IMDG / IATA / ADN

UN-No.	1046
---------------	------

14.2. UN proper shipping name

Transport by road/rail (ADR/RID) HELIUM, COMPRESSED

Transport by air (ICAO-TI / IATA-DGR) Helium, compressed

Transport by sea (IMDG) HELIUM, COMPRESSED

14.3. Transport hazard class(es)

Labelling :

2.2 : Non-flammable, non-toxic gases.

Transport by road/rail (ADR/RID)

Class	2
Classification code	1A
Hazard identification number	20
Tunnel Restriction	E - Passage forbidden through tunnels of category E Transport by air (ICAO-TI / IATA-DGR)
Class / Div. (Sub. risk(s))	2.2 Transport by sea (IMDG)
Class / Div. (Sub. risk(s))	2.2
Emergency Schedule (EmS) - Fire	F-C
Emergency Schedule (EmS) - Spillage	S-V

14.4. Packing group

Transport by road/rail (ADR/RID) Not applicable.

Transport by air (ICAO-TI / IATA-DGR) Not applicable.

Transport by sea (IMDG) Not applicable.

14.5. Environmental hazards

Transport by road/rail (ADR/RID) None.

Transport by air (ICAO-TI / IATA-DGR) None.

Transport by sea (IMDG) None.

14.6. Special precautions for user

Packing Instruction(s)

Transport by road/rail (ADR/RID) P200. Transport by air (ICAO-TI / IATA-DGR)

Passenger and Cargo Aircraft 200.

Cargo Aircraft only 200.

Transport by sea (IMDG) P200.

Special transport precautions Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers:

- Ensure there is adequate ventilation.
- Ensure that containers are firmly secured.
- Ensure valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations

Restrictions on use	None. Other information, restriction and prohibition regulations : Not listed on the PIC list (Regulation EU 649/2012).
Seveso Directive	2012/18/EU (Seveso III) : Not covered. National regulations
Regulatory reference	Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

A CSA does not need to be carried out for this product.

SECTION 16: Other information

Indication of changes	Revised safety data sheet in accordance with commission regulation (EU) No 2020/878.
Indication of changes - Revision date	01/09/2026
- Version: 1.2 (Supersedes Version: 1.1) This Safety Data Sheet has been revised to comply with Commission Delegated Regulation (EU) 2023/707. The following sections have been updated with new regulatory statements regarding Endocrine Disrupting properties, PBT/vPvB, and PMT/vPvM criteria: - Section 2 (Other hazards) - Section 11 (Information on other hazards) - Section 12 (Results of PBT/vPvB assessment, Endocrine disrupting properties)	
Abbreviations and acronyms	ATE - Acute Toxicity Estimate. CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008. REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. EINECS - European Inventory of Existing Commercial Chemical Substances. CAS# - Chemical Abstract Service number. PPE - Personal Protection Equipment. LC50 - Lethal Concentration to 50 % of a test population. RMM - Risk Management Measures. PBT - Persistent, Bioaccumulative and Toxic. vPvB - Very Persistent and Very Bioaccumulative.
STOT- SE	Specific Target Organ Toxicity - Single Exposure. CSA - Chemical Safety Assessment. EN - European Standard. UN - United Nations. ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road. IATA - International Air Transport Association. IMDG code - International Maritime Dangerous Goods. RID - Regulations concerning the International Carriage of Dangerous Goods by Rail. WGK - Water Hazard Class.
STOT - RE	Specific Target Organ Toxicity - Repeated Exposure.
UFI	Unique Formula Identifier.
Training advice	The hazard of asphyxiation is often overlooked and must be stressed during operator training. For more guidance, refer to EIGA SL 01 "Dangers of Asphyxiation", downloadable at
http	//www.eiga.eu..
Further information	Classification in accordance with the procedures and calculation methods of Regulation (EC) 1272/2008 (CLP). Key literature references and sources of data are maintained in EIGA doc 169 :
'Classification and Labelling Guide', downloadable at http	//www.Eiga.eu .

Full text of H- and EUH-statements H280 Contains gas under pressure; may explode if heated.

Press. Gas (Comp.) Gases under pressure	Compressed gas
DISCLAIMER OF LIABILITY	Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted. End of document