



Gas Container Services Limited,
Road No. 7, Colwick Industrial Estate, Colwick,
Nottingham. NG4 2JW.

GCS BEVGAS Safety and Data Sheet for Cylinder Gases

BEVGAS Party Helium

Helium (He)

Substance Identification UN 1046

Hazchem Code 2T

Bevgas Party Helium is supplied in high pressure gas cylinders as a compressed gas, each fitted with an outlet valve which must never be removed.

It is important that users know and understand the properties of Bevgas Party Helium and how to handle safely high pressure gas cylinders before using Bevgas Party Helium.

Always read the label on the cylinder

Intended Use

Bevgas Party Helium is intended only for balloon inflation purposes. Do not use for any other purpose. **DO NOT INHALE** the gas

Physical Properties

Molecular Weight	4	Specific Gravity (Air = 1)	0.14
Vapour Pressure (15° C)	N/A	Specific Volume of Gas (15° C, 1 atm.)	0.748 m ³ /kg
Boiling Point (1 atm)	-269° C	Latent heat of vaporisation - liquid at normal B.P.	4.878 kJ/kg
Critical Temperature	-268° C	Solubility in water (10° C, 1 atm.)	1.5 mg/l
Triple Point (30 bar g)	-271° C	Colourless	
Density Gas (15° C 1 atm)	0.167 kg/m ³	Odourless – No odour warning properties	

Cylinder details

Refillable cylinders are painted brown. Helium is indicated on the label attached to the cylinder. Cylinders are supplied with a pressure regulator / balloon inflation nozzle.

Cylinder Size	Outlet Connection (Note 1)	Maximum Filled Pressure at 15° C (bar)	Nominal Volume of Gas (m ³) (Note 2)	Approx. Size Diam. x Length (mm) (Note 3)	Approx. Empty Cylinder Weight (kg)
10 litre	No. 3 BS 341 5/8" BSP Female Right Hand	200	1.91	175 x 645	18.0

Notes

- 1 This is the outlet connection of the cylinder valve designed to accommodate the gas pressure regulator only.
- 2 The nominal volume of gas is measured at 15° C and 1013 mb pressure. Actual contents and volume may vary around this value.
- 3 Overall length of cylinder to top of valve guard.

Material Compatibility

Helium is an inert gas and is compatible with all materials.

Health Hazards

Inhalation of Bevgas Party Helium in high concentrations may cause asphyxiation. Symptoms may include loss of mobility and consciousness. Victims may not be aware of the onset of asphyxiation.

Rescue (inhalation - asphyxiation)

Breathing apparatus will be necessary if victim is in a confined space. Minimising personal risk, immediately remove victim to uncontaminated area. Ensure there is no obstruction to the airway. If breathing is weak or stopped apply artificial respiration with simultaneous administration of oxygen, preferably using an oxygen resuscitator. Summon ambulance. Keep victim warm and rested.

SAFETY WARNING: ASPHYXIAANT GAS

EMERGENCY ACTION

Leaking Cylinder

If cylinder is in an enclosed area, evacuate the area. Arrange for the area to be ventilated with air and check atmosphere for correct oxygen content before re-entry. Wear self-contained breathing apparatus when entering the area unless the atmosphere has been proved to be safe. Check that the cylinder valve is closed and move the cylinder to a safe area. Notify GCS to collect cylinder for testing and servicing.

Action in Event of Fire

Vacate the area and call the fire brigade. If unable to extinguish the fire, keep adjacent cylinders cool with water hosed from a safe distance. Cylinders not involved in the fire but being threatened should be removed to a safe area. Do not take risks. Inform emergency services of the nature of the product which is non-flammable and of the possibility that excessive heat may cause the cylinder to rupture or explode. In confined spaces wear self-contained breathing apparatus. Notify GCS to collect any cylinder(s) involved in a fire. Ensure such cylinders are clearly labelled.

General Information

There are no known toxicological effects from this product.

There is no known ecological damage caused by this product.

This product is much lighter than air.

Dispose of unwanted gas to atmosphere in a well ventilated area.

Do not dispose of empty cylinders, call GCS for collection.

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.

HAZARDOUS PROPERTIES

Helium gas in high concentrations may cause asphyxiation.

Handling Storage and use precautions

Cylinders should be leak checked after delivery, before storage and use.
Store in a cool, well ventilated area away from direct sunlight. Always read and understand the safety precautions supplied with the cylinder.
Use cylinder trolleys to move cylinders.
Always use a regulator and inflation nozzle designed for balloon filling.
Ensure cylinder is in a secure, upright position before use.
Use in a well ventilated area away from sources of heat and close the cylinder "master valve" after each use and when the cylinder is empty.
Keep away from children during inflation.
Remove the inflation nozzle prior to transportation to avoid damage.
DO NOT leave cylinders unattended.
DO NOT allow anyone to breathe helium direct from the cylinder.
DO NOT allow anyone to breathe helium from filled balloons.
DO NOT allow children or unauthorised persons to use or handle cylinders.
DO NOT use cylinders as rollers, transport them safely.
NEVER smoke when dealing with gas.
See general handling, storage and use information overleaf.

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The following practices are recommended for the safe handling and storage of high pressure compressed gas cylinders.

1 General Precautions

- 1.1 Compressed gases should only be handled by experienced and properly trained persons.
- 1.2 Observe all regulations and local requirements regarding the carriage and storage of cylinders.
- 1.3 Do not remove or deface any information on the cylinder provided by GCS for the identification of the contents.
- 1.4 Ascertain the identity of the gas before using or transporting it.
- 1.5 Know and understand the properties and hazards associated with each gas before transporting it.
- 1.6 Plans to cover any emergency situations which may arise should be prepared before using or transporting compressed gases.
- 1.7 Where there is doubt about the correct handling procedure for a particular gas or mixture, contact GCS Bevgas.
- 1.8 If you own your cylinders you must be aware of, and discharge, your statutory obligations regarding their maintenance and testing.

2 Transport precautions

In the event of cylinders being transported by road:

- 2.1 Make sure that the driver who carries cylinders in a vehicle has been properly instructed in the methods of handling and loading cylinders, in dealing with any emergency and carries the required information e.g. the Product Safety and Data Sheet.
- 2.2 Where possible, transport cylinders in open vehicles. Closed vehicles may be used to carry small quantities of cylinders if well ventilated.
- 2.3 Ensure that cylinders are properly secured on the vehicle.

3 Storage precautions

- 3.1 Cylinders should preferably be stored in a purpose built, well ventilated, storage area which is in the open air.
- 3.2 Store cylinders in a location free from fire risk and away from sources of heat and ignition.
- 3.3 The cylinder storage area should be clearly marked as a cylinder store and appropriate warning signs displayed. It should be kept clear and access restricted to authorised persons only.
- 3.4 All cylinders shall be stored in a manner so as to prevent damage. They should be stored in the vertical position and properly secured to prevent toppling. If stored in the horizontal position, they should be wedged and positioned so that the valve cannot be damaged. Cylinder valves should be closed. Valve guards should be in place and properly secured. Both full and part full cylinders should be kept as cool as possible and preferably the storage temperature should not exceed 21° C (70° F).
- 3.5 Protect cylinders stored in the open air from extremes of weather and other sources of corrosion.
- 3.6 Store full and empty cylinders separately and arrange the full cylinders so that the oldest stock is used first.

3.7 Segregate cylinder stocks by gas content i.e. Bevgas 30, 50, 60; Bevgas CO₂ or N₂ and Bevgas Party Helium.

3.8 Cylinders held in stores should periodically be checked for general condition and leakage.

4 Handling and use precautions

- 4.1 Wear strong gloves and safety shoes.
- 4.2 Always use proper techniques when lifting. Never try to lift large cylinders.
- 4.3 Use a suitable trolley when transporting cylinders even for a short distance.
- 4.4 Never remove the cylinder guard.
- 4.5 Check for gas leaks using approved leak detection solution.
- 4.6 Ensure that there is an adequate supply of water available for first aid fire fighting.
- 4.7 Always use the supplied pressure regulator / balloon inflation nozzle when inflating balloons.
- 4.8 Before connecting the regulator / balloon inflator nozzle to the cylinder for use ensure the valve outlet is clean and dry.
- 4.9 Before connecting cylinders check the complete gas system for suitability, paying particular attention to materials and pressure rating.
- 4.10 Never use heat, either direct flame or electrical devices, to raise the pressure of gas in a cylinder. Cylinders should not be subjected to temperatures in excess of 45° C.
- 4.11 Never re-compress the gas or gas mixture from a cylinder without consulting the supplier.
- 4.12 Never attempt to transfer gases from one cylinder to another.
- 4.13 Do not attempt to increase the liquid draw-off rate by pressurising the cylinder without first checking with the supplier.
- 4.14 Do not use cylinders as rollers or supports or for any purpose other than to contain gas as supplied.
- 4.15 Keep cylinder valve outlets clean and free from contamination, particularly oil and water.
- 4.16 Do not subject cylinders to mechanical shocks which may cause damage to their valves or safety devices.
- 4.17 Never attempt to repair or modify cylinder valves or safety relief devices. Report damaged valves immediately to the supplier.
- 4.18 Close the cylinder valve whenever the gas is not required, even if the cylinder is still connected to equipment.
- 4.19 Never move a cylinder with the pressure regulator / balloon inflator nozzle still connected.

General References

Health and Safety Executive Guidance Note EH 40

The Carriage of Dangerous Goods and Use of Transportable Pressure Receptacles Regulations 2004 SI 2004 No.568

The Carriage of Dangerous Goods and Use of Transportable Pressure Receptacles (Amendment) Regulations 2005 SI 2005 No.1732

Air Liquide - Gas Encyclopaedia, Elsevier 1976.

Further information concerning specific problems arising from the storage and handling of gases, hazards and first aid treatment, can be obtained from GCS Bevgas