



Material Safety Data Sheet

Helium Gas, compressed

1. MATERIAL IDENTIFICATION AND SUPPLIER

Supplier name: Supagas 2009 limited

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Telephone: 09 278 0145

Fax: 09 278 5672

Emergency: 111

Email: enquiries@supagas.co.nz

Web Site <http://www.supagas.co.nz>

Use(s) In breathing mixtures for long deep diving. Gas mixtures for welding . Balloon inflation. Helium is the lightest inert gas.

Synonym(s) HELIUM GAS, COMPRESSED

MSDS Date 9 June 2010

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA IN THE HS (MIN DEG OF HAZARD) REGS 2001

HAZARD CLASSIFICATION

Not Hazardous

SUBSIDIARY RISK

Contains gas under pressure, may explode if heated. Ruptured cylinders may rocket.

CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433

UN No. 1046

Pkg Group: None Allocated

DG Class: 2.2

Hazchem Code: 2[T]

EPG: 2C1

3. COMPOSITION

Ingredients	CAS no.	Content
Helium	7440-59-7	99.999%

4. FIRST AID MEASURES

Eye	Not irritating to the eye.
Skin	Not irritating to the skin
Inhalation	Helium is non-toxic . When the introduction of Helium is forcing the oxygen levels to deplete it can act as an asphyxiant. It is important to have a well ventilated factory/workshop. If inhalation has taken place be sure to not put yourself in harm's way, wear a self contained breathing apparatus and remove the person from the affected area. Should levels exceed 10% risk of loss of consciousness and or death. Seek urgent medical attention. Give oxygen if available.
Ingestion	Ingestion is considered unlikely. However, should ingestion occur, contact a Poison Information Centre on 0800764 766 (0800 POISON) or +643 479 7248 or a doctor.
Advice to Doctor	Advise the doctor that the victim has been exposed to an oxygen deficient atmosphere.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Non flammable gas. Temperatures in a fire may cause cylinders to rupture/explode. Call fire brigade. Do not approach cylinders suspected to be hot. Cool cylinders exposed to fire from a safe location if possible by applying water.

Extinguishing

Non flammable. Use water fog to cool containers from protected area.

Flammability

Non flammable

Hazchem Code 2TE

6. ACCIDENTAL RELEASE MEASURES

Spillage GAS CYLINDERS: If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate Personal protection gear and if safe to do so carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.

Personal protection: Persons moving cylinders should be provided with safety footwear, safety glasses and leather or PVC gloves. Full cover overalls are recommended. All personal protective equipment must be free from oil and grease. In areas where high exposure of argon ensure you have adequate ventilation and have correct respiratory equipment on hand.

7. STORAGE AND HANDLING

Storage

Storage of compressed gases should be in compliance with HSNO regulations. Cylinders should be stored away from ignition sources and in a cool, dry well ventilated area out of direct sunlight and away from heat. Cylinders should be stored in an upright position on a firm level floor concrete preferably, secured by a solid fixed chain and separate from empties.

Handling

Before use read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Only experienced and properly instructed personnel should handle compressed gases, should you need instruction please contact Supagas immediately.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards	Helium is an asphyxiant.
Engineering Controls	Do not allow backfeed into the cylinder. Use only properly specified equipment which is suitable for this product, its pressure and temperature. Provide suitable extraction and ventilation for the influenced areas.
Personal Protection Equipment	Wear safety glasses, leather gloves and safety boots. Where an inhalation risk is evident wear the correct respiratory gear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Colourless/Tasteless gas	Solubility (Water) : 0.0098 m3/kg
Odour: odourless	Specific gravity: Not Available
PH: Not Available	% Volatiles : Not Available
Vapour pressure: Not Available	Flammability: Non Flammable
Vapour Density: Not Available	Flash point: Not relevant
Boiling point: -268.93°C	Upper explosion limit: Not Relevant
Melting point: not available	Lower explosion limit: not relevant
Evaporation rate; not available	Autoignition Temperature: not available
Critical Temperature: -267.95°C	Density: 0.26 Air =1

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended conditions of storage

Conditions to Avoid

Avoid contact with incompatible Substances.

Materials to Avoid

Hazardous by products may be produced when this gas mixture is used in welding, cutting and associated processes. No known incompatible substances – inert gas. Avoid heating cylinders.

Decomposition Products

May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard

Summary

Asphyxiant gas. Symptoms of exposure are directly related to displacement of oxygen from air. As the influence of the gas is increased and oxygen levels begin to diminish, the pulse rate will accelerate and the rate of breathing will increase. The ability to maintain attention and think clearly is diminished, muscular co-ordination is disturbed. As the exposure is increased and oxygen is decreased poor judgement becomes evident and severe injuries may occur, the ability to feel pain will not be lost. Further reduction may cause nausea and vomiting.

Below 10 % oxygen levels may cause death.

Eye

Non irritating.

Inhalation

Non-irritant – Asphyxiant. Effects are proportional to oxygen displacement.

Skin

Non irritating.

Ingestion

Due to product form, ingestion is considered highly unlikely.

Toxicity Data

No LD50 data available for this product.

12. ECOLOGICAL INFORMATION

Environment

Not toxic to plants or animals except at extremely high levels. Fumes from the welding process which use this gas/gas mixture may be harmful to the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Cylinders should be returned to the manufacturer or supplier for disposal of contents.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Transport

Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.



CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433

Shipping Name :SupaHelium Gas, Compressed

UN No. 1046	DG Class: 2.2	Subsidiary Risk(s): None Allocated
Pkg Group: None Allocated	Hazchem Code: 2[T]	EPG: 2C1

15. REGULATORY INFORMATION

Group Name: SupaHelium Gas

16. OTHER INFORMATION

Additional Information

Supa Helium Gas is supplied compressed in high pressure cylinders. This gas is used in the welding process and in the party industry and is supplied to the end user in a gold cylinder. It is used in the welding process typically as a penetrating gas on Aluminium and Stainless steel materials being welded and provides a smooth effective solution to consistency and superior finishing in the welding range. It is commonly used in the form of filling various sizes and varieties of balloons and blimps.

APPLICATION METHOD: Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

ABBREVIATIONS:

mg/m³ - Milligrams per cubic metre

ppm - Parts Per Million

TW/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

HSNO - Hazardous substances and new organisms act 1996.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

This MSDS summarises to our best knowledge, at the date of issue, the health and safety hazard information regarding this product and general guidance on how to safely handle the product in the workplace. All due care has been taken to include accurate and up-to-date information in this MSDS.

Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Supagas 2009 Ltd. As far as lawfully possible, no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS can be accepted. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is available on request. This MSDS has been prepared in accordance with NZCIC Code of Practice - Preparation of Safety Data Sheets. This MSDS is subject to change without notice, for the latest version of this MSDS visit www.supagas.co.nz

Reviewed 9 June 2010.