ARGON / HELIUM MIXTURES

PRODUCT & SAFETY DATA SHEET

Issue date: 19 October 2025

Industrial and professional use

WARNING Compressed gas | Non-flammable | Simple asphyxiant

May explode if heated. May displace oxygen and cause rapid suffocation.

UN NUMBER	TRANSPORT CLASS	COMPONENT CAS	NFPA
UN1956	2.2	7440-37-1 / 7440-59-7	0 - 0 - 0

HAZARD SUMMARY



Signal word: WARNING

- Contains gas under pressure; may explode if
- heated.
- The mixture is non-flammable but can intensify
- pressure hazards when cylinders are heated.
- Argon and helium are simple asphyxiants that can
- displace oxygen without warning.
- Oxygen-deficient atmospheres may cause
- dizziness, nausea, loss of coordination,
- unconsciousness and death.
- Gas is colourless and odourless; atmosphere
- monitoring may be required.

PRODUCT IDENTIFICATION

Product	Argon/Helium mixtures
Synonyms	Aluline He25, Aluline He50, Aluline He75
Components	Argon / Helium
Formulas	Ar / He
Composition	0-100% each, depending on mixture
Physical form	Compressed gas mixture

FIRST AID

INHALATION
Move the person to fresh air and keep comfortable for breathing. Give oxygen if breathing is difficult. If breathing has stopped, begin artificial respiration and obtain immediate medical attention.

SKIN / EYES
No effects are expected under normal use. Obtain medical attention if symptoms occur.

RESCUERS
Do not enter an unknown or oxygen-deficient atmosphere without self-contained breathing apparatus.

FIRE AND ACCIDENTAL RELEASE

- Use extinguishing media appropriate for the surrounding fire. The product is
- non-flammable.
- Cool fire-exposed cylinders. Damaged cylinders should be handled only by
- specialists.
- Evacuate personnel, ventilate the area and monitor oxygen concentration.
- Stop the flow or move the cylinder outdoors only when this can be done safely.
- Prevent gas from spreading through sewers, ventilation systems and confined
- areas.
- Emergency responders may require positive-pressure self-contained breathing
- apparatus.

PHYSICAL PROPERTIES

Physical state	Gas
Appearance	Colourless
Odour	Odourless
Flammability	Non-flammable
Water solubility	Slightly soluble
Argon MW	39.94
Helium MW	4.0
Argon vapour density	1.38 (air = 1)
Helium vapour density	0.138 (air = 1)
Argon boiling point	-185.9 °C
Helium boiling point	-268.9 °C
Critical temperatures	Ar -122.3 °C / He -267.9 °C

PERSONAL PROTECTION

- Wear safety glasses with side shields or goggles.
- Use work gloves and safety footwear when handling cylinders.
- Provide adequate ventilation and maintain oxygen at or above 19.5%.
- Use oxygen detectors where asphyxiating gases may be released.
- Use positive-pressure supplied-air respiratory protection or SCBA in
- oxygen-deficient atmospheres.

HANDLING AND STORAGE

- Use only with adequate ventilation and equipment rated for cylinder pressure.
- Use a backflow-prevention device and check the gas system for leaks before use.
- Protect cylinders from damage; do not drag, roll, slide or drop. Move with a
- suitable cylinder cart.
- Keep cylinders upright, capped and firmly secured. Separate full and empty
- cylinders.
- Store in a cool, dry, well-ventilated area below 52 °C / 125 °F.
- Close the valve after each use and when empty. Do not attempt to refill the
- cylinder.
- Never transport cylinders in trunks or unventilated passenger compartments.
- Only trained personnel should handle gases under pressure.

TRANSPORT AND EMERGENCY CONTACTS

TDG shipping name	Compressed gas, n.o.s.
Description	UN1956 (Argon, Helium), 2.2

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