SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product Name: ARGON, COMPRESSED
Synonyms: Ar, Argon gas
Product Code: A1000

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Shielding gas for arc welding, laser and light bulb manufacturing, inert atmosphere in industrial processes
Uses Advised Against: Not for medical or breathing use

1.3 Supplier Details

Supplier: Industrial Gases New Zealand Ltd t/a Eziswap Gas
Address: 6 and 10 Canaveral Drive, Rosedale, Auckland, NEW ZEALAND
Phone: +64 9 444 0357
Email: sales@eziswapgas.co.nz
Website: http://www.eziswapgas.co.nz

1.4 Emergency Telephone Number

Emergency Telephone (NZ Only): 111

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Gases under pressure – Compressed gas (HSNO 6.5)

2. 2 Label elements (GHS 7)

Signal Word: **WARNING**
Pictogram:

Hazard Statements:

- H280: Contains gas under pressure; may explode if heated

Precautionary Statements:

- P103: Read label before use
- P410+P403: Protect from sunlight. Store in a well-ventilated place

2.3 Other Hazards

- Simple asphyxiant at high concentrations
- Inert, non-toxic gas that displaces oxygen.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EC Number	Content (v/v)
Argon	7440-37-1	231-147-0	>99.9%

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

- **Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. Administer oxygen if available. Seek medical attention.
- **Skin Contact:** Not expected to cause skin irritation. If exposed to cold gas or frostbite, flush with lukewarm water and seek medical attention.
- **Eye Contact:** Flush eyes with lukewarm water if exposed to cold gas. Seek medical advice if irritation occurs.
- **Ingestion**: Not applicable.

4.2 Most Important Symptoms and Effects

Dizziness, fatigue, unconsciousness from oxygen deficiency.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat asphyxia symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Not flammable. Use dry chemical or CO_2 to extinguish surrounding fire. Use water spray to cool cylinders.

5.2 Special Hazards Arising from the Substance

Cylinders may rupture violently in fire due to pressure build-up.

5.3 Advice for Firefighters

- Use self-contained breathing apparatus and full protective clothing.
- Cool fire-exposed containers with water spray from protected location.

5.4 Hazchem Code

2T

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Evacuate area.
- Ensure adequate ventilation.
- Use SCBA if oxygen levels are low.

6.2 Environmental Precautions

Prevent release into confined or low-lying spaces.

6.3 Methods and Materials for Containment and Clean-Up

- Stop leak if safe to do so.
- Allow gas to disperse with ventilation.
- Do not enter area until atmosphere is safe.

6.4 Reference to Other Sections

See Sections 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Use only in well-ventilated areas.
- Avoid rough handling or dropping.
- Do not use oil or grease on equipment.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- Store cylinders upright in a cool, dry, ventilated area below 45°C.
- Keep away from heat and oxidisers.
- Secure cylinders to prevent tipping.

7.3 Specific End Use(s)

Shielding gas in welding, inerting, filling and blanketing processes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters (Workplace Exposure Standards - NZ WES 2022)

No WES established. Argon is an asphyxiant.

8.2 Exposure Controls

- **Engineering Controls:** Provide local or general exhaust ventilation.
- **Personal Protective Equipment (PPE):**
  - **Eye Protection:** Safety glasses
  - **Skin Protection:** Protective gloves
  - **Respiratory Protection:** SCBA for confined spaces or emergencies

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Colourless gas
Odour	Odourless
Boiling Point	-185.9°C
Vapour Density (Air=1)	1.38
Solubility (Water)	0.0337 cm^3/cm^3
Flammability	Non-flammable
Critical Temperature	-122.3°C
Volatile Components	100%
Molecular Weight	39.95

10. STABILITY AND REACTIVITY

10.1 Reactivity
Inert gas, non-reactive.

10.2 Chemical Stability
Stable under normal storage and handling conditions.

10.3 Possibility of Hazardous Reactions
Will not occur.

10.4 Conditions to Avoid
High temperatures, enclosed spaces without ventilation.

10.5 Incompatible Materials
None under normal use.

10.6 Hazardous Decomposition Products
None

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity:** Not classified.
- **Inhalation:** Asphyxiant. High concentrations can lead to unconsciousness and death.
- **Skin:** Not irritating.
- **Eye:** Not irritating unless from cold exposure.
- **Chronic Effects:** No known chronic effects.

12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** Not expected to be harmful.
- **Persistence and Degradability:** Argon is a naturally occurring gas.
- **Bioaccumulation Potential:** None
- **Mobility in Soil:** High
- **Other Adverse Effects:** Displaces oxygen in confined areas.

13. DISPOSAL CONSIDERATIONS

- **Product:** Allow gas to vent in a well-ventilated area. Do not release into confined or poorly ventilated spaces.
- **Container:** Return to supplier. Do not puncture or incinerate cylinders.

14. TRANSPORT INFORMATION

Mode	UN Number	Proper Shipping Name	Class	Packing Group	Hazchem	EMS
Land	UN1006	Argon, Compressed	2.2	Not applicable	2T	—
Sea (IMDG)	UN1006	Argon, Compressed	2.2	Not applicable	2T	F-C, S-V
Air (IATA)	UN1006	Argon, Compressed	2.2	Not applicable	—	—

Additional Notes:

- Classified as a Dangerous Good for transport under NZS 5433, IMDG, and IATA.
- Hazard Label:

- Ensure cylinders are secured and upright during transport.
- Avoid carriage in passenger compartments.
- Comply with local and international transport legislation.

15. REGULATORY INFORMATION

- **HSNO Approval Code:** HSR001017
- **Group Standard:** Compressed Gases (Non-flammable) Group Standard 2017
- **Inventory Status**: Listed on NZIoC (New Zealand Inventory of Chemicals)

16. OTHER INFORMATION

- This SDS has been prepared according to the requirements of the Health and Safety at Work (Hazardous Substances) Regulations 2017 and GHS 7.
- Ensure personnel are trained in gas handling and emergency procedures.
- Ensure appropriate signage and ventilation in all storage and use areas.
- Refer to NZS 5433 and NZTA guidelines for gas cylinder handling and emergency protocols.
- Revision Date: June 2025