

<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

## SAFETY DATA SHEET COMPRESSED ARGON

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### 1: IDENTIFICATION OF MATERIAL AND SUPPLIER:

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#### 1.1 Produce Identifier:

**Product Name:** ARGON, COMPRESSED  
**Chemical Name:** Argon.  
**Synonyms:** Shielding gas, Blanketing gas  
**UN Number:** 1006

#### 1.2: Use:

Analytical Chemistry, Hospitality and Industrial Applications

#### 1.3: Detail of the Supplier of the Produce:

**Supplier Name:** Southern Gas Services Ltd  
**Address:** 67 Hoskyns Rd, Rolleston 7675  
**Telephone No:** (03) 3472691  
**Email:** reception@southernngas.co.nz  
**Website:** <https://www.southernngas.co.nz>

#### **1.4: Emergency telephone number:**

Emergency **Dial 111**

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### 2: HAZARDS IDENTIFICATION:

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#### 2.1 Classification of the Substance or Mixture:

HAZARDOUS ACCORDING TO NZ ENVIRONMENTAL PROTECTION AUTHORITY CRITERIA

#### **Physical Hazards:**

Gases Under Pressure, Compressed Gas.

#### **Health Hazards**

Not Classified as a Health Hazard

#### **Environmental Hazards**

Not classified as a Environmental Hazard

#### 2.2 GHS Label Elements:

**Signal Word** **WARNING**

**Pictogram(s)**



<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

**Hazard Statement:**

H280 Contains gas under pressure, may explode if heated

**Prevention Statements:**

None Allocated

**Response Statements:**

None Allocated

**Storage Statements:**

P403 Store in a well-ventilated place.

P410 Protect from sunlight

**Disposal Statements:**

None allocated.

**2.3 Other Hazards:**

Asphyxiant. Effects are proportional to oxygen displacement

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**3: COMPOSITION / INGREDIENTS:**

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**3.1 Substance / Mixture:**

Ingredient	CAS Number	EC Number	Proportion
ARGON	7440-37-1	231-147-0	>99.9%

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

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**4: FIRST AID MEASURES:**

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**4.1 Description of First Aid Measures:**

**Eye:** None required

**Inhalation:** If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self-Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available.

**Skin:** None Required

**Ingestion:** Ingestion is not considered a potential route of exposure.

**First Aid Facilities:** None Allocated

<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

#### **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. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

#### **4.3 Immediate Medical Attention and Special Treatment Needed**

Treat symptomatically

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### **5: FIRE FIGHTING MEASURES:**

#### **5.1 Extinguishing Media**

Use water fog to cool containers from protected area.

#### **5.2 Special Hazards Arising from the Substance or Mixture**

Non-Flammable

#### **5.3 Advice for Firefighters**

Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Cool cylinders or containers exposed to fire by applying water from a protected location. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool. Do not approach cylinders or containers suspected of being hot.

#### **5.4 Hazchem Code**

2T

2 Fine Water Spray.

T Wear full fire kit and breathing apparatus. Dilute spill and run-off.

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### **6: ACCIDENTAL RELEASE MEASURES:**

#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

If the cylinder is leaking, evacuate area of personnel. Inform manufacturer/supplier of leak. Use Personal Protective Equipment (PPE) as detailed in Section 8 of the SDS.

#### **6.2 Environmental Precautions**

Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.

#### **6.3 Methods of Cleaning Up**

Carefully move material to a well-ventilated remote area, then allow to discharge if safe to do so. Do not attempt to repair leaking valve or cylinder safety devices.

SAFETY DATA SHEET
Title: ARGON, COMPRESSED SAFETY DATA SHEET
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

**6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

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**7: HANDLING AND STORAGE:**

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**7.1 Precautions for Safe Handling**

Use of safe work practices are recommended to avoid inhalation. Do not drag, drop, slide or roll cylinders. The uncontrolled release of a gas under pressure may cause physical harm. Use a suitable hand truck for cylinder movement.

**7.2 Conditions for Safe Storage, Including Any Incompatibilities**

Cylinders should be stored: below 65 °C in a secure area, upright and restrained to prevent from falling. Cylinders should also be stored in a dry, well-ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic emergency exits.

**7.3 Specific End Use(s)**

No information provided.

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**8: EXPOSURE CONTROLS / PERSONAL PROTECTION:**

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**8.1 Control Parameters:**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Argon	SWA	Asphyxiant			

**Biological limits**

No biological limit values have been entered for this product.

**8.2 Exposure Controls**

**Engineering controls** Provide suitable ventilation to minimise or eliminate exposure. Confined areas (e.g. tanks) should be adequately ventilated or gas tested.

**PPE**

- Eye / Face** Wear safety glasses.
- Hands** Wear leather or cotton gloves.
- Body** Wear coveralls and safety boots.
- Respiratory** Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator

<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030




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## **9: PHYSICAL AND CHEMICAL PROPERTIES:**

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### **9.1 Information on Basic Physical and Chemical Properties**

<b>Appearance</b>	COLOURLESS GAS
<b>Odour</b>	ODOURLESS
<b>Flammability</b>	NON-FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	-185.9 °C
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT APPLICABLE
<b>pH</b>	NOT APPLICABLE
<b>Vapour density</b>	NOT AVAILABLE
<b>Relative density</b>	NOT APPLICABLE
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

### **9.2 Other Information**

<b>% Volatiles</b>	100 %
<b>Critical pressure</b>	4864 kPa
<b>Critical temperature</b>	-122.4 °C
<b>Cylinder pressure</b>	20000 kPa @ 15°C
<b>Density</b>	1.38 kg/m <sup>3</sup> @ 15°C

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## **10. STABILITY AND REACTIVITY:**

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### **10.1 Reactivity**

Carefully review all information provided in section s10.2 to 10.6

<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

### **10.2 Chemical Stability**

Stable under recommended conditions of storage

### **10.3 Possibility of Hazardous Reactions**

Polymerisation will not occur

### **10.4 Conditions to Avoid**

Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.

### **10.5 Incompatible Materials**

Compatible with most commonly used materials. Hazardous by-products may be produced when this gas/gas mixture is used in welding, cutting and associated processes

### **10.6 Hazardous Decomposition Products**

May evolve toxic gases if heated to decomposition.

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## **11. TOXICOLOGY INFORMATION:**

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### **11.1 Information on Toxicological Effects**

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<b>Skin</b>	Not classified as a skin irritant.
<b>Eye</b>	Not classified as an eye irritant.
<b>Sensitisation</b>	Not classified as causing skin or respiratory sensitisation.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Not classified as a carcinogen.
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT – single exposure</b>	Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.
<b>STOT- repeated exposure</b>	Not classified as causing organ damage from repeated exposure.
<b>Aspiration</b>	Not applicable to gases as gas mixtures

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## **12. ECOLOGICAL INFORMATION:**

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### **12.1 Toxicity**

No ecological damage is expected to be caused by this product.

### **12.2 Persistence and Degradability**

The product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

### **12.3 Bio Accumulative Potential**



<b>SAFETY DATA SHEET</b>
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

Ensure there is adequate ventilation.  
 Ensure that containers are firmly secured.  
 Ensure cylinder 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.

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## **15. REGULATORY INFORMATION:**

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

<b>Poison Schedule</b>	None Allocated
<b>Approval code</b>	Non-Hazardous
<b>Group Standard</b>	No Group Standard Classification. Gas Under Pressure (H280)
<b>Inventory Listings</b>	<b>New Zealand: NZIoC (New Zealand Inventory of Chemicals)</b> All components are listed on the NZIoC inventory or are exempt.
<b>Classifications:</b>	Based upon the Globally Harmonised System (GHS) of classification and labelling of Chemicals (GHS Revision 7)
<b>Legislation:</b>	Approved under Hazardous Substances and New Organisms Act 1996 (HSNO) and Health and Safety at Work (Hazardous Substances) Regulations 2017

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## **16. OTHER INFORMATION:**

<b>Additional Information</b>	<p><b>PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:</b>          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.</p> <p><b>HEALTH EFFECTS FROM EXPOSURE:</b> 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.</p>
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**Cylinder Colour:**  
**Industrial:** AS2700 – Blue

**Cylinder Valve Outlet:**  
**Industrial:** AS 2473.2 Type 10 (Minimum Pressure Retention Valve)

SAFETY DATA SHEET
Title: <b>ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

**References:**

- NZS 5433:2007 Transport of Dangerous Goods on Land
- EPA Website – Approvals Register – [www.epa.govt.nz](http://www.epa.govt.nz)
- SNZ HB76:2008 Dangerous Goods – Initial Emergency Response Guide
- AS1678 2C1 Emergency Procedure Guide – Transport – Non-Flammable, Compressed Gas
- AS 4484-2004 - Gas Cylinders for Industrial, Scientific, medical and refrigerant use - Labelling and colour coding
- AS 2473.2-2007 - Valves for compressed gas outlets - Part 2 Outlet connections (threaded) and stem (inlet) threads
- Operators Handbook for the Transport of Dangerous Goods by Road – NZ Road Transport & Logistics Industry Training Organisation
- NZCIC Code of Practice – Preparation of Safety Data Sheets

<b>Abbreviations</b>	<b>ACGIH</b>	American Conference of Governmental Industrial Hygiene
	<b>CAS #</b>	Chemical Abstract Service number - used to uniquely identify chemical compounds
	<b>CCID</b>	Chemical Classification and Information Database (HSNO)
	<b>CNS</b>	Central Nervous System
	<b>EC No.</b>	EC No - European Community Number
	<b>EMS</b>	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
	<b>EPA</b>	Environmental Protection Authority [New Zealand]
	<b>GHS</b>	Globally Harmonised System
	<b>HSNO</b>	Hazardous Substances and New Organisms
	<b>IARC</b>	International Agency for Research on Cancer
	<b>LC50</b>	Lethal Concentration, 50% /Median Lethal Conc
	<b>LD50</b>	Lethal Dose, 50%/Median Lethal Dose
	<b>mg/m<sup>3</sup></b>	Milligrams per Cubic Metre
	<b>OEL</b>	Occupational Exposure Limit
	<b>pH</b>	Relates to Hydrogen ion concentration
	<b>ppm</b>	Parts Per Million
	<b>STEL</b>	Short-Term Exposure Limit
	<b>STOT-RE</b>	Specific Target Organ Toxicity (repeated exposure)
	<b>STOT-SE</b>	Specific Target Organ Toxicity (single exposure)
	<b>TLV</b>	Threshold Limit Value
	<b>TWA</b>	Time Weighted Average

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**17. MSDS SUMMARY:**

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<b>SAFETY DATA SHEET</b>
<b>Title: ARGON, COMPRESSED SAFETY DATA SHEET</b>
Date of Issue: 1 October 2025
Date of Next Review: 1 October 2030

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 Southern Gas Services Limited.

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.

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