

# MATERIAL SAFETY DATA SHEET (MSDS)

## ARGON C25

### SECTION 1: IDENTIFICATION (MATERIAL & SUPPLIER)

<b>GHS Product Identifier:</b>	Argon, Carbon Dioxide mixed
<b>Product Name:</b>	Argon, Carbon Dioxide compressed
<b>Chemical Name:</b>	Argon 75%, Carbon Dioxide 25%
<b>Synonym(s):</b>	ARGON C25, ARGCO25, PURESIELD 25
<b>Uses:</b>	Shielding Gas for Welding; Industrial Applications.
<b>Supplier Name:</b>	Puregas Aust Pty Ltd
<b>Address:</b>	262 Rex Road, Campbellfield VIC 3061
<b>Telephone:</b>	1300 733 097
<b>Fax:</b>	03 9464 4977
<b>Emergency:</b>	DIAL 000
<b>Emergency:</b>	24hr EMERGENCY TELEPHONE (Australia Only) 1300 994 556
<b>Website:</b>	www.puregas.com.au
<b>MSDS Date:</b>	30/5/2022

### SECTION 2: HAZARD(S) IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

**GHS Classification:** Gases Under Pressure: Compressed Gas

**Label Elements:**

**Signal Word:** WARNING



**Pictogram(s):**

**Hazard Statements:** H280 – Contains gas under pressure; may explode if heated.

**Prevention Statements:** None allocated

**Response Statements:** None allocated

**Storage Statements:** P410 + P403 Protect from sunlight. Store in a well-ventilated place.

**Disposal Statements:** None allocated

**Other Hazards:** Asphyxiant. In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
ARGON	7440-37-1	231-147-0	75%
CARBON DIOXIDE	124-38-9	204-696-9	25%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

<b>Eyes:</b>	Not applicable.
<b>Inhaled:</b>	Remove from exposure, but avoid becoming a casualty. To protect rescuer, use an Air-line respirator or Self-Contained Breathing Apparatus (SCBA) Apply artificial respiration if not

breathing. Give Oxygen if available. Rest and keep warm. Obtain medical attention. For advice contact Poisons Information Centre Ph: 13 11 26 or a doctor.

**Skin:** Not applicable.

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

**First Aid Facilities** Not applicable

**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.

**Immediate medical attention and special treatment needed.**

Treat symptomatically.

### SECTION 5: FIRE FIGHTING MEASURES

**Extinguishing Media:** Use water fog to cool containers from protected area.

**Special hazards arising from the substance or mixture:**

Non-Flammable.

**Advice for Firefighters:**

Temperatures in a fire may cause cylinders to rupture. 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.

**Hazchem Code:**

2TE

2 - Fine Water Spray

T - Wear full fire kit and breathing apparatus.

Dilute spill and run off.

E – Evacuation of people in and around the immediate vicinity of the incident should be considered.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures.

**Non-emergency personnel:**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. 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.

**Environmental Precautions:**

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

**Methods of cleaning up:**

Carefully move to a well-ventilated area. Allow gas to escape to atmosphere, preferably in an open remote location. Do not attempt to repair leaking valve or cylinder safety devices.

**Reference to other sections:**

See Section 8 for Exposure Controls and Section 13 for disposal considerations

### SECTION 7: HANDLING AND STORAGE

**Precautions for Safe Handling.**

Use safe work practices to avoid inhalation. Use appropriate personal protective equipment (see Section 8). Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement. Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Use equipment rated for cylinder pressure. Close valve after each use and when empty. The uncontrolled release of a gas under pressure may cause physical harm.

**Conditions for safe storage, including any incompatibilities.**

Store cylinders below 45oC upright in a secure enclosure, preferably outside of buildings, protected from direct sunlight. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete). Secure cylinders

# MATERIAL SAFETY DATA SHEET (MSDS)

## ARGON C25 *continued*

by chains or similar device to prevent falling over.  
Keep away from vehicular traffic, emergency exits and other thoroughfares.  
No information provided.

**Specific end use(s):**

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters.**

Ingredient	Reference	TWA		STEL		
		ppm	mg/m <sup>2</sup>	ppm	mg/m <sup>2</sup>	
Argon	SWA (Aus)	Asphyxiant				
Carbon Dioxide	SWA (Aus)	5000	9000	30000	54000	

**Biological limits:** No biological limit values have been entered for this product.

**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  
Hands**

Wear Safety Glasses  
Chemical-resistant, impervious gloves complying with an approved standard should be worn.

**Body**

Personal protective equipment for the body and appropriate footwear should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.



### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties.**

<b>Appearance:</b>	Colourless gas
<b>Odour:</b>	Odourless
<b>Flammability:</b>	Not Flammable.
<b>Flash Point:</b>	Not relevant
<b>Boiling Point:</b>	-186°C (approx.).
<b>Melting Point:</b>	-189°C (approx.).
<b>Evaporation Rate:</b>	Not available.
<b>pH:</b>	Not available.
<b>Specific gravity:</b>	Not available.
<b>Solubility in Water</b>	Slightly soluble.
<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>Auto-Ignition 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
<b>Volatiles:</b>	100%

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity.** No specific test data related to reactivity available for this product or its ingredients. Carefully review all information provided in sections below.

**Chemical Stability.** Stable under recommended conditions of storage.

**Possibility of Hazardous Reactions.** Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to Avoid.  
Incompatible Materials.** Avoid contact with incompatible substances. Moist carbon dioxide is corrosive, hence acid resistant materials are required (e.g. stainless steel). Certain properties of some plastics and

rubbers may be affected by carbon dioxide (i.e. embrittlement, leaching of plasticisers, etc).

**Hazardous Decomposition Products.**

This material will not decompose to form hazardous products other than that already present.

### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects.**

**Acute Toxicity:**

Based on available data the classification criteria are not met. Low concentrations of Carbon Dioxide cause increased respiration and headache.

**Skin:**

Not irritating to the skin.

**Eyes:**

Not irritating to the eye.

**Sensitisation:**

Not classified as causing skin or respiratory sensitisation.

**Mutagenicity:**

No significant ingredient is classified as a mutagen.

**Carcinogenicity:**

No significant ingredient is classified as a carcinogen.

**Reproductive:**

No significant ingredient is classified as a reproductive toxin.

**STOT Single Exposure:**

Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.

**STOT Repeated Exposure:**

Not classified as causing organ damage from repeated exposure.

**Aspiration:**

Not classified as causing aspiration.

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity.**

No information provided.

**Persistence and Degradability.**

No information provided.

**Bioaccumulative Potential.**

No information provided.

**Mobility in Soil**

Not applicable.

**Other Adverse Effects**

When discharged to the atmosphere, Carbon Dioxide may contribute to the greenhouse effect.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Waste disposal**

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

**Legislation**

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

### SECTION 14: TRANSPORT INFORMATION

**CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE**



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
UN Number	1956	1956	1956
Proper Shipping Name	COMPRESSED GAS, N.O.S. (contains Argon)	COMPRESSED GAS, N.O.S. (contains Argon)	COMPRESSED GAS, N.O.S. (contains Argon)
Transport Hazard Class	2.2	2.2	2.2
Packing Group	None Allocated	None Allocated	None Allocated

**Environmental Hazards**

No information provided.

**Special Precautions for User**

Hazchem Code 2TE  
GTEPG 2C1  
EMS F-C, S-V

**Other Information:**

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

### SECTION 15: REGULATORY INFORMATION

# MATERIAL SAFETY DATA SHEET (MSDS)

## ARGON C25 *continued*

### Safety, Health and Environmental Regulations

SWA

Safe Work Australia

TLV

Threshold Limit Value

TWA

Time Weighted Average

### Legislation Specific for the Substance or Mixture.

<b>Poison Schedule:</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications:</b>	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].
<b>Hazard Codes:</b>	None Allocated
<b>Risk Phrases:</b>	None Allocated
<b>Safety Phrases:</b>	None Allocated
<b>Inventory Listing(s):</b>	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.

### SECTION 16: OTHER INFORMATION

<b>Additional Information</b>	The storage of significant quantities of gas cylinders must comply with AS4332 The Storage and Handling of Gases in Cylinders. When using this gas/gas mixture for welding, cutting and associated processes, additional hazards may be generated by the process such as radiation, noise and fume. Risk assessments should be made for each activity to identify and quantify the individual hazards involved.
<b>APPLICATION METHOD</b>	Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.
<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.
<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.

### ABBREVIATIONS:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No. EC No -	European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonised System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons