STAINLESS 62

SECTION 1: IDENTIFICATION (MATERIAL & SUPPLIER)

GHS Product Identifier: PG Stainless 62

Product Name: PG Stainless 62

Chemical Name: Argon/Helium/Carbon Dioxide

Synonym(s): ARGON/CARBON DIOXIDE/HELIUM MIXTURE

Uses: Industrial Applications, Shielding Gas, Welding Gas.

Supplier Name: Puregas Aust Pty Ltd

Address: 262 Rex Road, Campbellfield VIC 3061

Telephone: 1300 733 097

Fax: 03 9464 4977

Emergency: DIAL 000

Emergency: 24hr EMERGENCY TELEPHONE (Australia Only) 1300 994 556

Website: www.puregas.com.au

MSDS Date: 30/05/2022

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

Physical Hazards: Gases Under Pressure: Compressed Gas

Health Hazards: Not classified as a Health Hazard.

Environmental Hazards: Not classified as an Environmental Hazard.

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. Effects are proportional to oxygen displacement.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
ARGON	7440-37-1	231-147-0	Remainder
HELIUM	7440-59-7	231-168-5	10 to 50%
CARBON DIOXIDE	124-38-9	204-696-9	<15%

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

Eyes: None required.

Inhaled: If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). 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.

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. Low concentrations of CO2 cause increased respiration and headache.

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.

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 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.

Conditions for safe storage, including any incompatibilities.

Cylinders should be stored below 65°C in a secure area, upright and restrained to prevent cylinders 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 and emergency exits.

Specific end use(s): No information provided.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters.

Ingredient	Reference	TWA		STEL	
		ppm	mg/m²	ppm	mg/m²
Argon	SWA (Aus)	Asphyxiant			
Carbon Dioxide	SWA (AUS)	5000	9000	30000	54000
Carbon Dioxide in coal mines	SWA (AUS	12500	22500	30000	54000
Carbon Dioxide in coal mines	SWA (Proposed)	5000	9000	30000	54000
Helium	SWA (Aus)	Asphyxiant			

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

Exposure Controls.

Engineering Controls	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.
PPE	
Eye/Face	Wear Safety Glasses
Hands	Wear leather gloves.
Body	Wear Safety Boots
Respiratory	Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties.

Appearance:	Colourless gas
Odour:	Odourless
Flammability:	Not Flammable.
Flash Point:	Not relevant
Boiling Point:	-186°C (Argon)
Melting Point:	-189°C (Argon).
Evaporation Rate:	Not available.
pH:	Not available.
Vapour density:	> 1 (Air – 1).
Specific gravity:	Not available.
Solubility in Water	Insoluble.
Vapour Pressure:	Not available
Upper explosion limit:	Not Relevant
Lower explosion limit:	Not Relevant
Partition Coefficient:	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity	Not available
Explosive Properties	Not available
Oxidising Properties	Not available
Odour Threshold	Not available
Volatiles:	100%

SECTION 10: STABILITY AND REACTIVITY

Reactivity.	Carefully review all information provided in sections 10.2 to 10.6.
Chemical Stability.	Stable under recommended conditions of storage.
Possibility of Hazardous Reactions.	Polymerization will not occur.
Conditions to Avoid.	Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.
Incompatible Materials.	Compatible with most commonly used materials.
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.
Skin:	Not classified as a skin irritant
Eyes:	Not classified as an eye irritant
Sensitisation:	Not classified as causing skin or respiratory sensitisation.
Mutagenicity:	Not classified as a mutagen.
Carcinogenicity:	Not classified as a carcinogen.
Reproductive:	Not 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 ecological damage caused by this product.
Persistence and Degradability.	No information provided.
Bio accumulative Potential.	No information provided.
Mobility in Soil	No information provided.
Other Adverse Effects	When discharged to the atmosphere, carbon dioxide may contribute to the greenhouse effect..

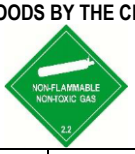
SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste disposal	Cylinders should be returned to the manufacturer or supplier for disposal of contents.
Legislation	Disposal of in accordance with relevant local legislation..

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	Not a Marine Pollutant.
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

Safety, Health and Environmental Regulations

Legislation Specific for the Substance or Mixture.

Poison Schedule:	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).
Classifications:	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.
Inventory Listing(s):	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.

SECTION 16: OTHER INFORMATION

Additional Information

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

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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/m³	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
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average