SECTION 1 – IDENTIFICATION (MATERIAL & SUPPLIER)

Product Identifier: Argoweld 52
Other Means of Identification: SDS Product Code PG23
Chemical Formula Components: Ar, CO2 & O2
Recommended Use: (of the Chemical and Restrictions on use) An Argon, CO2 & Oxygen mixture suited for MIG welding of mild steel.

Details of Manufacturer or Importer
Supplier Name: PUREGAS
Address: 12 Harrahun Street, Thomastown, VIC 3074
Phone: 1300 733 097
Fax: 1300 815 397
Emergency: BUSINESS HOURS TELEPHONE No: 1300 733 097
EMERGENCY SERVICES: 000
Email: sales@puregas.com.au
Website: www.puregas.com.au
MSDS Date: March 2017

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the Hazardous Chemical
Compressed Argon is
NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA but rather
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE.

Hazard Class and Category Code Regulation EC 1272/2008 (CLP)
Physical Hazards
Gases under Pressure: Compressed gas - Warning - (CLP: Press. Gas) - H280
Classification EC 67/548 or EC 1999/45: Not classified as dangerous substance/mixture.

Label Elements, including Precautionary Statements
Labelling Regulation EC 1272/2008 (CLP)

Hazard Pictograms

Hazard Pictograms Code: GHS 04
Signal Word: Warning
Hazard Statements:
H280 – Contains gas under pressure; may explode if heated.
Precautionary Statements
Storage: P403
Store in a well ventilated place.
Other Hazards: None.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Material | Abbreviation | Contents | CAS No. | EC No
--- | --- | --- | --- | ---
Argon | Ar | 93% | 7440-37-1 | 231-147-0
Oxygen | O2 | 2% | 7782-44-7 | 231-956-9
Carbon Dioxide | CO2 | 5% | 124-38-9 | 204-696-9

SECTION 4 – FIRST AID MEASURES

4.1. Description of First Aid Measures
First Aid Measures
Inhalation: In high concentrations will cause asphyxiation. Symptoms may include loss of mobility/consciousness. The affected person may not be aware of asphyxiation. Remove the affected person to a ventilated & non-contaminated area where Rescuers must be wearing & use self contained breathing apparatus (SCBA). Keep the affected person warm and allow to rest & recover.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammability: Non flammable.

Fire and Explosion: 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 area if unable to keep cylinders cool. Do not approach cylinders or containers suspected of being hot. Isolate gas flow where safe to do so.

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

Hazchem Code: 2T

2 Fine Water Spray.

T Wear full fire kit and breathing apparatus.

Dilute spill and run-off.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
If possible prevent gas from discharging.

Personnel Precautions
Evacuate area. Rescuers to wear SCBA when entering area unless atmosphere is confirmed safe. Open windows or use fans to make sure that there is sufficient fresh air entering the affected area.

6.2. Environmental Precautions
None.
Try to stop release. Prevent from entering low lying areas such as cellars, basements and work pits, or any such place where Argon accumulation & buildup would prove to be dangerous.

6.3. Methods and Material for Containment and Cleaning Up
None.
Clean Up Procedure
Ventilate area.

6.4. Reference to Subsequent Sections
See also sections 8 & 13.

SECTION 7 – HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Observe the following requirement of the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Observe the requirements of State Dangerous Goods (Storage and Handling) Regulations.

7.1 Storage and Handling
Storage Temperature: Room Temperature
UN Class: 2.2 Non-Flammable, Non-toxic gas.
ARGOWELD 52 continued

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

7.2 Storage Conditions (See Also AS4332 For Details)

Cylinders (Containers) are to be stored upright with their valve protective cap fitted, ideally outside of buildings or in a well ventilated area. Keep cylinders cool to minimise the pressure build up inside the cylinder (Container). i.e. Do not store the Cylinders (Containers) in direct sunlight.

Argon Cylinders (Containers) should be stored in areas not exceeding 45°C. Observe safe manual handling of Cylinders (Containers) to avoid back or other injuries. Always move Cylinders (Containers) with cylinder dollies or portable racks; never roll or drag a bottle.

Store Argon Cylinders (Containers) in an area away from foot and vehicle traffic to reduce the risk of accidental damage or impact & make sure that they are secured to say a wall bracket with a strap or chain.

For indoors, use a well-ventilated storage area. For outdoors, use a storage area that’s protected from weather and equipped with a lock to prevent theft or tampering.

7.3 Spills, Leaks, and Disposal

CAUTION: In the event of a cylinder (Container) rupture or uncontrolled release, evacuate all non-essential personnel from the immediate vicinity until the cylinder (Container) gas release has subsided & dissipated. Use the necessary protective measures (i.e. Wear gloves and goggles) when approaching the discharged cylinder (Container). If in a confined or non ventilated space use a self-contained breathing apparatus.

Do not attempt to repair leaking BD’s or cylinder valves but simply fit a secure tag & print whether the valve and/or BD are defective and leaking. If possible date and print your name & contact details.

Argon gas is non-flammable and does not support combustion. Exposing the cylinder (Container) to intense heat or flame (e.g. a fire.) may cause the cylinder to vent rapidly and/or rupture violently.

To prevent the above happening, all Argon cylinder valves are fitted with a BD (Burst disc.) This should in most cases prevent the cylinder (Container) from rupturing.

The BD’s act as a safety valve and are designed to vent the Argon gas when exposed to an elevated temperature of 65 degrees Centigrade. If the cylinders have simply become hot and the BDs have not released any gas cool/spray with water from a hose until cooled to the ambient air temperature.

If the Cylinders (Containers) are in a fire call the emergency services or fire brigade to deal with the situation as they are trained & have the equipment to deal with the matter.

7.4 Decomposition Products

Argon

No adverse effects expected.

7.5 Other Information

Store and use compressed Argon in well ventilated areas. Do not store, tip, or roll Cylinders (Containers) on their sides. Do not use oil and grease on Cylinders (Containers), cylinder valves or the threaded valve caps.

Connect the Equipment or Materials properly as detailed in the Manufacturer’s instructions. Only use regulators, interconnecting piping and equipment with the correct mating connections and that are designed to withstand the high pressures to be encountered.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Control Parameters

DNEL: Derived No Effect Level

None available.

PNEC: Predicted No Effect Concentration

None available.

8.2. Exposure Controls

8.2.1. Appropriate Engineering - Controls

Systems under pressure are to be regularly checked for leakages. Provide adequate general and local exhaust ventilation. Consider work permit system e.g. for maintenance activities.

8.2.2. Individual Protection

A risk assessment should be such measures as PPE conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk.

The following recommendations should be considered.

Wear safety glasses with side shields, leather safety gloves, safety shoes when manually handling cylinders.

Ensure adequate ventilation.

8.2.3. Environmental Exposure Controls

Refer to local regulations for restriction of emissions to the atmosphere. See also section 13 for controls specific methods for waste gas treatment.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties Appearance

Physical state at 20°C / 101.3kPa

Gas.

Colour

Colourless.

Odour

3 Component odourless mixture.

Odour threshold

Any odour present is subjective and inadequate to warn for overexposure.

pH value

N/A for gas mixtures.

Molar mass [g/mol]

N/A for gases and gas-mixtures.

Melting point [°C]

N/A for gas mixtures.

Boiling point [°C]

N/A for gas mixtures.

Critical temperature [°C]

N/A for gas mixtures.

Flash point [°C]

N/A for gas mixtures.

Evaporation rate (ether=1)

N/A for gas mixtures.

Flammability range [vol% in air] Non flammable.

Vapour pressure [20°C]

N/A.

Partition coefficient n-octanol/water

N/A for gas mixtures.

Viscosity at 20°C [mPa.s]

N/A.

Explosive Properties

N/A, (Inert)

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

No reactivity hazard other than the effects described in sub-sections below.

Stability and reactivity: Stable.

Chemical Stability

Stable.

Possibility of Hazardous Reactions

None.

Conditions to Avoid

None.

Incompatible Materials

None.

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Toxicity Information

No known toxicological effects from this product.

Acute Toxicity

No known toxicological effects from this product.

Rat Inhalation LC50 (ppm/4h)

No data available.

Skin Corrosion/Irritation

No known effects from this product.
ARGOWELD 52 continued

SECTION 2 – ECOLOGICAL INFORMATION

Waste Treatment Methods
May be vented to atmosphere in a well ventilated place.
Do not discharge into any place where its accumulation could be dangerous.

Refer to the code of practice of EIGA (Doc. 30/10 "Disposal of Gases, downloadable at http://www.eiga.org") for more guidance on suitable disposal methods.
Contact supplier if guidance is required.
General: Do not discharge into any place where its accumulation could be dangerous.
May be vented to atmosphere in a well ventilated place.
Contact supplier if guidance is required.

SECTION 14 – TRANSPORT INFORMATION

Un Number 1966
Labelling ADR, IMDG, IATA

SECTION 13 – DISPOSAL CONSIDERATIONS

Special Precautions for User
Avoid transport on vehicles where the load space is not separated from the driver’s compartment.
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers:
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.

Labelling ADR
2.2: Non flammable, non toxic gas.

Other Transport Information
Before transporting product containers:
Ensure that cylinders 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.

Chemical Safety Assessment
A CSA does not need to be carried out for this product.

SECTION 16 – ANY OTHER RELEVANT INFORMATION

Indication Of Changes
Revised safety data sheet in accordance with commission regulation (EU) No 453/2010

Training Advice
Receptacle under pressure.
Asphyxiate in high concentrations.
Keep container in a well-ventilated place.
Do not breathe the gas.
Ensure all national/local regulations are observed.
The hazard of asphyxiation is often overlooked and must be stressed during operator training.

List of Full Text of H-Statements in Section 3
H281 - Contains compressed gas; may cause cold burns when gas is expanding or injury.

Further Information
Classification in accordance with calculation methods of regulation (EC) 1272/2008 CLP / (EC) 1999/45 DPD.

Note: This Safety Data Sheet has been established in accordance with “Preparation of safety data sheets for hazardous chemicals” - code of practice

DISCLAIMER OF LIABILITY
Details given in this document are believed to be correct at the time of issue. Although proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.