

SIG SOUTHERN INDUSTRIAL GAS SDN BHD

SAFETY DATA SHEET

PURIFIED ARGON

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name	Purified Argon
Synonyms	Pure Argon
Chemical Formula	Ar
CAS No	7440-37-1
Use of Substance	Synthetic / Analytical chemistry
Manufacturer	SOUTHERN INDUSTRIAL GAS SDN. BHD. PLO 137, Kawasan Perindustrian Senai III, 81400 Senai, Johor.
Contact Number	07-598 3863
Emergency Phone Number (24 hr)	07-598 3863

2. HAZARDS IDENTIFICATION

Chemical Name	CAS No.	Classification Code	Labeling		
			H-code	Signal Word	Hazard Pictogram
Argon	7440-37-1	Press. Gas	H 280	Warning	

Classification of the substance Press. Gas : Gases under pressure
(Compressed gas)

Hazard Statement H 280 : Contains gas under pressure; may explode if heated.

Precautionary Statement P403 : Store in a well-ventilated place

Other Hazards Asphyxiant in high concentration.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name	Ingredient	CAS Number	Purity	OSHA-PEL
Purified Argon	Argon	7440-37-1	99.999 %	None established

*Contains no other components or impurities which influence the classification of the product.

4. FIRST AID MEASURES

Eye Contact	None under normal use. Get medical attention if symptoms occur.
Inhalation	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin Contact	None under normal use. Get medical attention if symptoms occur.
Ingestion	None under normal use. Get medical attention if symptoms occur.
Most important symptoms and effects, both acute and delayed	Respiratory arrest.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	All known extinguishants can be used.
Unsuitable extinguishing media	None
Special hazards arising from the chemical	None
Special protective equipment and precautions for fire fighters	In case of fire: Stop leak if safe to do so. Continue water spray from protected position until container stays cool. Use extinguishants to contain the fire. Isolate the source of the fire or let it burn out. In confined space use self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources. Post warning notices (including no smoking).
Environmental precautions	Try to stop release. Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.
Clean up methods	Provide adequate ventilation. Return cylinder to authorized distributor.

7. HANDLING AND STORAGE

Precaution for safe handling	Only properly trained or experienced persons should handle the gases under pressure. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Suck back of water into the container must be prevented. Do not allow back feed into the container. Contact your gas supplier if in doubt. Never use direct flame or electrical heating devices to raise the pressure of cylinder.
Condition for safe storage	Keep away from ignition sources (including static discharges). Keep container below 50°C in a well-ventilated place. Avoid asphalted locations for storage, transfer and use (ignition risk if split). Containers should not be stored in conditions likely to encourage corrosion. Container should be stored in the vertical position and properly secured to prevent falling over.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	Exposure Limit – None established.
Appropriate engineering controls	Ensure adequate air ventilation. Avoid oxygen rich (>23.5 %) atmospheres. Oxygen detectors should be used when asphyxiating gases may be released. System under pressure should be regularly checked for leakage.

Personal protection equipment	Wear goggles for eye protection. Contact lens should not be worn when working. Wear suitable hand, body and head protection. Do not eat, drink or smoke when using the product.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless, gas
Odour	Odourless
Odour threshold	No information available
pH	Not applicable
Melting point / Freezing point	-189 °C
Boiling point	-186 °C
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability	Non flammable
Upper/lower explosive limit	Not applicable
Vapour pressure	No data available
Vapour density (Air =1)	1.38
Relative density	1.4
Solubility	61 mg/L
Partition coefficient	Not known
Auto ignition temperature	Not applicable
Decomposition temperature	Not known
Viscosity	No data available.

10. STABILITY AND REACTIVITY

Reactivity	No reactivity hazard other than the effects described in sub-section below
Chemical Stability	Stable under normal conditions of use and storage.
Possibility of hazardous reactions	None
Condition to avoid	None.
Incompatible materials	No reaction with any common materials in dry or wet conditions.
Hazardous decomposition products	None under normal conditions of use and storage.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	Oral: LD ₅₀ > No information available. Dermal: LD ₅₀ > No information available. Inhalation: LC ₅₀ > No information available. Inhalation: No data is available on the product itself
Skin corrosion / irritation	Based on available data, the classification criteria are not met.
Serious eye damage/ irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity product	Based on available data, the classification criteria are not met.
Reproductive toxicity product	Based on available data, the classification criteria are not met.
Specific target organ toxicity – single exposure product.	Based on available data, the classification criteria are not met.
Specific target organ toxicity – repeated exposure product	Based on available data, the classification criteria are not met.
Aspiration hazard product	Not applicable to gases and gas mixtures.

12. ECOLOGICAL INFORMATION

Ecotoxicity effect	
Acute toxicity product	No ecological damage caused by this product
Additional ecological information	No ecological damage caused by this product
Persistence and degradability	The substance is naturally occurring
Bioaccumulative potential	The product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.
Mobility in soil	The substance is gas, not applicable.
Other adverse effects	No other adverse effects are identified

13. DISPOSAL CONSIDERATIONS**Waste from residue / unused product**

Do not discharge into any place where its accumulation could be dangerous.
Vent to atmosphere in a well-ventilated place.

Contaminated packaging

Do not reuse empty containers.
Empty remaining contents.
Dispose of container and unused contents in accordance with local and national regulation.
Return cylinder to supplier.

14. TRANSPORT INFORMATION**UN Number**

UN 1006

UN proper shipping name

Argon, Compressed.

Transport hazard class(es)

2

Packing group

-

Environmental hazards

Not applicable

Special precautions for user

-

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Information

Ensure the driver is understand well on the potential hazards of the load and knows what to do in the event of an accident or an emergency.
Secured the product containers before transporting it.
Ensure that the cylinder valve is closed and not leaking.
Container valve guards or caps should be in place.
Ensure adequate air ventilation.

15. REGULATORY INFORMATION

Contact local government authority.

16. OTHER INFORMATION**Date of Preparation / Revision of SDS**

20-October-2014 / Rev. 01

Legend to the abbreviations and acronyms used

Classification of the substance

Press. Gas : Gases under pressure
(Compressed gas)

Hazard Statement

H 280 : Contains gas under pressure; may explode if heated.

Precautionary Statement

P403 : Store in a well-ventilated place

Revision Date: 20 October 2014

Abbreviations	LC ₅₀	:	median lethal concentration
	LD ₅₀	:	median lethal dose
	PEL	:	Permissible exposure limits

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