Argon, Compressed

Section 1, Identification

Product Name	:	Argon, compressed
Formula	:	Ar
Other means of identification	:	Compressed argon, shielding gas
Product use	:	Industrial use, Synthetic/Analytical chemistry
Supplier's details	:	WKS INDUSTRIAL GAS PTE LTD 22 Tuas Avenue 10 Singapore 639145 T-6898 2292, F-6898 2202 info@wks.com.sg / www.wks.com.sg

Section 2, Hazard(s) identification

Classified as Hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification : Gases under pressure – Compressed gas.

Hazard pictogram(s) :

Signal word : Warning.

Hazard statement(s)	:	H280	Contains gas under pressure; may explode if heated.
	:	OSHA-H01	May displace oxygen and cause rapid suffocation.
Precautionary statement(s)	:	P202	Do not handle until all safety precautions have been read and understood.
	:	P271	Use only outdoors or in a well-ventilated area.
	:	P403	Store in a well-ventilated area.
	:	CGA-PG06	Close valve after each use and when empty.
	:	CGA-PG10	Use only equipment rated for cylinder pressure.

Disposal : Not Applicable.

Hazards not otherwise classified : Asphyxiant in high concentrations.

Hazchem code : 2T

H S code : 28042100

Section 3, Composition/information on ingredients

Name	:	Argon, compressed.
CAS No.	:	7440-37-1
%	:	>99.7%

Section 4, First-aid measures

Description of First-Aid measures

Inhalation : Move victim to fresh air and keep at rest in a comfortable position. Seek medical advice/attention if required.

Skin contact : Adverse effects not expected from this product.

Eye contact : Adverse effects not expected from this product. In case of eye irritation, rinse immediately with plenty of water. Seek medical attention if needed.

Ingestion : Ingestion is considered unlikely as this product is in gas form.

Most important symptoms and effects, both acute and delayed
No additional information available.

Indication of any immediate medical attention and special treatment needed
None.

Section 5, Fire-fighting measures

Extinguishing media
Use an extinguishing agent appropriate for surrounding fire.

Special hazards arising from the substance or mixture
Cylinders contain gas under pressure. In a fire or if heated, a pressure increase will occur and may cause cylinder to burst or explode.

Advice for firefighters
Evacuate all personnel. Heat from fire will increase temperatures in cylinder and may cause cylinder to rupture. Cool cylinders or containers by applying water from a safe distance. Stop flow of gas if safe to do so. Remove cylinders from path of fire if safe to do so. Use self-contained breathing apparatus and protective clothing.

Section6, Accidental release measures

Personal precautions, protective equipment and emergency procedures

Non-emergency personnel : Evacuate area. Eliminate ignition sources. Ensure adequate air ventilation and wear appropriate respirator when ventilation is inadequate. Wear PPE.

For emergency responders : If specialised clothing is required to deal with spillage, refer to Section 8 on suitable and unsuitable materials. See also information in “Non-emergency personnel”.

Environmental precautions : Try to stop release. Prevent from entering sewers, basement, work pits or any place where its accumulation can be dangerous.

Methods and materials used for containment cleaning up
Stop leak if without risk. Carefully move cylinder to well-ventilated remote area and allow discharge if safe to do so. Refer to Section 8 & 13.

Section 7, Handling and storage

Precautions for safe handling
Contain under pressure. Do not drag, roll, drop or slide cylinder. Keep cylinder valve free from oil or grease. Do not puncture or incinerate cylinder. Open valve slowly and close after use. Use equipment rated for cylinder pressure. Keep cylinders in well-ventilated place.

Conditions for safe storage, including any incompatibilities
Store in accordance with local regulations. Store cylinders only where temperature will not exceed 52°C. Keep cylinder tightly closed until ready for use. Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods.

Section 8, Exposure controls/personal protection

Control parameters

Exposure standards : Not established.
Biological limits : Not established.

Exposure controls

Engineering controls : No special precautions under normal handling of product.

Individual protection measures

PPE

Eye / face : Safety glasses with side shields.
Hand : Gloves.
Body : Safety boots.
Respiratory : When a risk assessment indicates respirator use, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard.

Section 9, Physical and chemical properties

Physical state : Gas.
Colour : Colourless.
Odour : Odourless.
Odour threshold : Not available.
Molecular mass : 40 g/mol
pH : Not applicable.
Melting point : -189°C
Boiling point : -186°C
Flash point : Not applicable.
Evaporation rate : Not applicable.
Flammability (solid, gas) : Not available.
Upper/lower explosive limits : Not available.
Vapour pressure : Not available.
Vapour density : 1.38 (Air = 1)
Relative density : Not available.
Solubility (water) : 61mg/l
Oxidizing properties : None.
Partition coefficient: n-octanol/water : 0.74
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Not available.

Section 10, Stability and reactivity

Reactivity : No additional information available.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : None.
Conditions to avoid : None.
Incompatible materials : Used in welding and cutting, the arc from electric arc welding may form gaseous reaction products such as carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. Other decomposition products of arc welding and cutting originate from the volatilization, reaction and oxidization of the materials being worked.
Hazardous decomposition products : None.

Section 11, Toxicological information

Acute toxicity	: Not classified.
Corrosion/irritation	: Not available.
Sensitization	: Not available.
Mutagenicity	: Not available.
Carcinogenicity	: Not available.
Reproductive toxicity	: Not available.
STOT (single exposure)	: Not available.
STOT (repeated exposure)	: Not available.
Aspiration hazard	: Not classified.

Section 12, Ecological information

Toxicity	: No ecological damage caused by this product.
Persistence and degradability	: Not available.
Bioaccumulative potential	: Not available.
Mobility in soil	: Not available.
Other adverse effects	: No known effects from this product.

Section 13, Disposal considerations

Disposal : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

Section 14, Transport information

	Land Transport	Sea transport	Air Transport
UN number	UN1006	UN1006	UN1006
UN proper shipping name	ARGON, COMPRESSED	ARGON, COMPRESSED	ARGON, COMPRESSED
Transport hazard class(es)	2.2 	2.2 	2.2 
Packing group	None allocated	None allocated	None allocated
Environmental hazards	No	No	No

Additional information : Ensure cylinder is separated from driver's compartment. Ensure driver is aware of the potential hazards of product and know what to do in the event of an accident or an emergency. Ensure that cylinders are properly secured and valves are closed.

Section 15, Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all local regulations or legislations are observed.

Section 16, Other information

The hazard of asphyxiation is often overlooked and must be stressed before use. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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