Material Safety Data Sheet

ARGON, Compressed (Ar)

Infosafe™ No. 8CDBP **Issue Date** May 2009 **Status** ISSUED by AIRLIQUI BS: 1.9.21

Not classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name ARGON, Compressed (Ar)

Product Use Inert atmospheres, electric lamp filler gas, shielding for welding, gas chromatography and metal refining.

Company Name Air Liquide Australia Limited (ABN 57 004 385 782)

Address Level 9, 380 St. Kilda Road Melbourne
Victoria 3004

Emergency Tel. 1800 812588 (24hr)

Telephone Number/Fax Tel: (03) 9697 9888
Fax: (03) 9690 7107

Other Names	Name	Product Code
	ARCAL, BLUESHIELD	
	ARGON	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Argon	7440-37-1	100 %

3. HAZARDS IDENTIFICATION

Chronic Effects Long-term exposure to argon has no known health effects. Chronic oxygen deficiency (below 18% oxygen in air) may affect the heart and nervous system.

Inhalation Simple asphixiant. Primary health concern is the displacement of oxygen in air.
Argon is non-toxic at normal temperature and pressure. Can displace oxygen which may lead to oxygen deficiency. Oxygen content of the atmosphere must not be allowed to fall below 18%. Effects of oxygen deficiency are: 12-16%: breathing and pulse rate increased, muscular coordination slightly disturbed; 10-14%: emotional upset, abnormal fatigue, disturbed respiration; 6-10%: nausea and vomiting, collapse or loss of consciousness; below 6%: convulsive movements, possible respiratory collapse and death.

Ingestion Not applicable to gases.

Skin No adverse health effects are expected from mixture as supplied, however sudden or uncontrolled gas release may cause physical injury.

Eye Not irritating to the eye.

4. FIRST AID MEASURES

Inhalation Prompt medical attention is mandatory in all cases of underexposure and overexposure to oxygen. Seek medical attention. If inhaled, remove affected person from contaminated area. Keep at rest until recovered.

Ingestion Not applicable to gases.

Skin Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and persist seek medical attention.

First Aid Facilities Eyewash and normal washroom facilities. A safety shower is strongly recommended.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use appropriate media to extinguish source of surrounding fire.

Specific Hazards	This gas is non-flammable, but container may rupture when heated.
Hazardous Combustion Products	Not applicable
Precautions in connection with Fire	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.
Flash Point	Not applicable
Ignition Temperature	Not available
Flammable Limits UEL	Not applicable
Flammable Limits LEL	Not applicable
Flammability	Non combustible.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. Use self-contained breathing apparatus (S.C.B.A) and full protective clothing to minimise exposure. Allow gas to vent safely to atmosphere, preferably in well ventilated, remote location. Monitor oxygen concentration in confined spaces. Wear air-supplied mask. Check for leaks using pressure drop test or soapy water on joints and outlets. Shut cylinder valve to stop leak if possible and safe to do so.

7. HANDLING AND STORAGE

Handling	Use away from all sources or heat and ignition. Avoid skin and eye contact and breathing of gas. Post 'NO SMOKING' signs in area of use. Avoid release of gas into workplace air. Use smallest possible amounts in designated areas with adequate ventilation. Simple asphixiant. Primary health concern is the displacement of oxygen in air. Maintain oxygen concentration above 18% by volume. Have emergency equipment (for fires, leaks, etc.) readily available. Only experienced and properly instructed personnel should handle compressed gases. Cylinder contents and identification labels provided by the supplier must not be removed or defaced. Colour coding should not be the only criterion used for content identification.
Storage	Protect containers against physical damage. Store in a cool, dry, well-ventilated place, low fire risk area. Protect from extremes of temperature and weather. Do not allow any part of a cylinder to be exposed above 55°C. Storage areas should be kept clean and free from flammable and combustible materials. Ensure that containers are properly vented to prevent build up of

	pressure. Refer to commonwealth, state and territory legislation for requirements, which affect compressed gas storage and transport.
Packaging	High pressure cylinders. Colour: Peacock Blue

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Not applicable for air.
Respiratory Protection	Not required for compressed air.
Eye Protection	Chemical goggles or safety glasses should be worn to protect against sudden uncontrolled gas release.
Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Footwear	Personnel engaged in the movement of gas cylinders shall be provided with safety footwear.
Body Protection	Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.
Eng. Controls	Ensure ventilation is adequate to maintain oxygen concentrations above 18%.
Biological Limit Values	Not applicable for air.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless, tasteless, odourless gas.
Boiling Point	-189.4°C
Solubility in Water	0.054m^3/kg
pH Value	Not applicable
Vapour Pressure	Not available
Density	Relative Density = 1.4 Density of gas: 1.691kg/m^3
Flash Point	Not applicable
Flammability	Non combustible.

Ignition Temperature	Not available
Flammable Limits LEL	Not applicable
Flammable Limits UEL	Not applicable
Molecular Weight	39.948
Other Information	Critical temperature: -122.29°C

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and handling.
Hazardous Polymerization	Will not occur
Hazardous Decomposition Products	Not applicable
Conditions to Avoid	Extremes of temperature and direct sunlight.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Not available
Inhalation	Simple asphixiant. Primary health concern is the displacement of oxygen in air. Argon is non-toxic at normal temperature and pressure. Can displace oxygen which may lead to oxygen deficiency. Oxygen content of the atmosphere must not be allowed to fall below 18%. Effects of oxygen deficiency are: 12-16%: breathing and pulse rate increased, muscular coordination slightly disturbed; 10-14%: emotional upset, abnormal fatigue, disturbed respiration; 6-10%: nausea and vomiting, collapse or loss of consciousness; below 6%: convulsive movements, possible respiratory collapse and death.
Ingestion	Not applicable to gases.
Skin	No adverse health effects are expected from mixture as supplied, however sudden or uncontrolled gas release may cause physical injury.
Eye	Not irritating to the eye.
Chronic Effects	Long-term exposure to argon has no known health effects. Chronic oxygen deficiency (below 18% oxygen in air) may affect the heart and nervous system.

12. ECOLOGICAL INFORMATION

Environment Protection	Not applicable
Mobility	Not applicable
Persistence / Degradability	Not applicable
Ecotoxicity	Not applicable

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to applicable local and national regulations.

14. TRANSPORT INFORMATION

This material is classified as a Class 2.2 (Non-flammable Non-toxic Gases) Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Class 2.2 Dangerous Goods are incompatible in a placard load with any of the following:
- Class 1, Explosives
- Class 4.2, Spontaneously Combustible Substances
- Class 5.2, Organic Peroxides

U.N. Number	1006
Proper Shipping Name	ARGON, COMPRESSED
DG Class	2.2
Hazchem Code	2T
Packaging Method	P200
Packing Group	
EPG Number	2C1
IERG Number	08

15. REGULATORY INFORMATION

Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Risk Phrase

Poisons Schedule Not Scheduled

Packaging & Labelling High pressure cylinders. Colour: Peacock Blue

16. OTHER INFORMATION

Contact Person/Point

24 HOUR EMERGENCY CONTACT: The Operator: 1800 812 588

Regional Offices:
Victoria
40 Bunnett Street, North Sunshine 3020. Tel. (03) 9290 1100 Fax (03) 9290 1199
New South Wales
43-47 Pine Road, Fairfield 2165. Tel. (02) 9892 9777 Fax (02) 9892 1454
4 Kullara Close, Beresfield. 2322. Tel (02) 4949 1700 Fax (02) 4949 1750
Lot 5, Shellharbour Road, Port Kembla 2505. Tel. (02) 4274 4044 Fax (02) 4276 3879
South Australia
164 Philip Highway, Elizabeth 5112. Tel. (08) 8209 3600 Fax (08) 8255 9885
Queensland
759 Progress Road, Wacol 4076. Tel. (07) 3246 6363 Fax (07) 3271 2589
Ingham Road, Cnr. Dundee Street,
Bohle, Townsville, 4818
Tel. (07) 4774 8276 Fax (07) 4774 8313
Featherstone Street, Parkhurst
Rockhampton, 4702. Tel. (07) 4936 1066 Fax (07) 4936 1024
68 Bunda Street, Cairns 4870. Tel. (07) 4031 1566 Fax (07) 4051 4293
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Supersedes: July 2004

Poisons Schedule Not Scheduled

Molecular Weight 39.948

End of MSDS

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