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INTERNATIONAL INDUSTRIAL GASES LTD.

ARGON MSDS Dresser Welding

ProductName: Argon, compressed
ChemicalName: Argon
Formula: Ar
ChemicalFamily: Inert gas
Use: Various, inerting, medical, instrumentation
Synonyms: Argon

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SA

NFPA Fire:	0	**HMIS Fire:**	0	**Acute:**	No
NFPA Health:	0	**HMIS Health:**	0	**Chronic:**	No
NFPA Reactivity:	0	**HMIS Reactivity:**	0	**Fire:**	No
NFPA Special Hazard:	SA	**Mixture:**	No	**Reactive:**	No
				Sudden Release Pressure:	Yes

02. INGREDIENTS - COMPOSITION & INFORMATION

COMPONENT	CAS No.	PERCENT (BY WT.)		EXPOSURE GUIDELINES OSHA - TWA	ACGIH - STEL
Argon	7440-37-1	99.0%	100.0%	None.	Simple Asphyxiant

LD50: None. LC50: None.

03. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Warning: High pressure gas.
Can cause rapid suffocation.
Do not breathe gas.
Self contained breathing apparatus may be required by rescue workers.

Potential Health Effects Information:

Routes of Exposure:

Inhalation: Simple asphyxiant. Argon is nontoxic, but may cause suffocation by displacing the oxygen in air. Exposure to oxygen-deficient atmosphere (<19.5%) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

Eye: None.

Skin: None.

Chronic Effects: None established.

Medical Conditions Aggravated By Overexposure: None.

Other Effects Of Overexposure: None.

Carcinogenicity: Argon is not listed by NTP, OSHA, or IARC

04. FIRST AID MEASURES

Inhalation: Persons suffering from lack of oxygen should be removed to fresh air. If victim is not breathing, administer artificial respiration. If breathing is difficult, administer oxygen. Obtain prompt medical attention.

Skin: None.

Eye: None.

Ingestion: None.

Notes To Physician: None.

05. FIRE FIGHTING MEASURES

Flash Point: Not applicable; Gas.

Autoignition: Nonflammable.

Flammable Limits - Lower: Not applicable.

Flammable Limits - Upper: Not applicable.

Extinguishing Media: Argon is nonflammable and does not support combustion. Use extinguishing media appropriate for the surrounding fire.

Fire Fighting Instructions: Argon is a simple asphyxiant. If possible, remove argon cylinders from fire area or cool with water. Do not direct water spray at the container vent. Self-contained breathing apparatus may be required for rescue workers. Evacuate this area.

Fire And Explosion Hazards: Upon exposure to intense heat or flame cylinder may vent rapidly and/or rupture violently. Most cylinders are designed to vent contents when exposed to elevated temperatures. Pressure in a container can build up due to heat and it may rupture if pressure relief devices should fail to function.

Hazardous Combustion Products: None known.

Sensitivity To Static Discharge: None.

Sensitivity To Mechanical Impact: None.

06. ACCIDENTAL RELEASE MEASURES

Evacuate: Evacuate all personnel from the affected area. Shut off source of argon if possible without risk. Ventilate area or remove leaking containers to a well ventilated location. If leaking from cylinder or its valve, contact your supplier.

07. HANDLING AND STORAGE

Storage: Store and use with adequate ventilation. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 125°F (52°C). Full and empty cylinders should be segregated. Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time

Handling: Use a suitable hand truck for cylinder movement. Never attempt to lift a cylinder by its valve protection cap. Keep cylinders and their valves free from oil and grease. Open valve slowly. If user experiences difficulty operating cylinder valve, discontinue use and contact supplier. Never insert an object (e.g., wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. Use an adjustable strap wrench to remove over-tight or rusted caps. For additional precautions in using argon see Section

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Other Information.

08. EXPOSURE CONTROLS - PERSONAL PROTECTION

Engineering Controls:

Ventilation: Natural or mechanical to prevent oxygen-deficient atmospheres under 19.5% oxygen.

Personal Protective Equipment (PPE):

Skin Protection:

Glasses: Safety glasses are recommended when handling cylinders.

Shoes: Safety shoes are recommended when handling cylinders.

Gloves: Work gloves are recommended when handling cylinders.

Respirator: None required in general use.

Emergency Use: Self-contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmosphere. Respirators will not function.

09. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Gas

Color: Colorless

Odor: Odorless

Molecular Weight: 39.95

Boiling Point: -302.6°F (-185.9°C) @ 1 atm

Specific Gravity: 1.38 At 70°F (21.1°C) @ 1 atm, Air = 1

Freezing/Melting Point: -308.6°F (-189.2°C), @ 1 atm

Vapor Pressure: Not Applicable

Vapor Density: .103 lb./cu ft (1.650 kg/CuM), At 70°F (21.1°C) @ 1 atm

Water Solubility: .056 Vol./Vol. At 32° F (0°C)

Expansion Ratio: Not Applicable - Gas

pH: Not Applicable - Gas

Odor Threshold: Not Applicable - Gas

Evaporation Rate: Not Applicable - Gas

Coefficient Of Water/Oil Distribution: Information not available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions To Avoid: None.

Incompatibility With Other Materials: None

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Irritancy Of Material: None.

Reproductive Effects: None.

Teratogenicity: None.

Synergistic Materials: None.

Sensitization To Material: None.

Mutagenicity: None.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: No adverse ecological effects are expected. Argon does not contain any Class I or Class II Ozone depleting chemicals (40 CFR Part 82). Argon is not listed as a marine pollutant by DOT (49 CFR Part 171).

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.

Waste Disposal Method: For emergency disposal, discharge slowly to the atmosphere in a well ventilated area or outdoors.

14. TRANSPORT INFORMATION

DOT/IMO Shipping Name: Argon, compressed.
Hazard Class: 2.2 (NonFlammable gas.)
Identification Number: UN 1066
PIN: 1066
Product RQ: None.
Shipping Label: Nonflammable Gas
Placard (When Required): Nonflammable Gas.
Special Shipping Information: Cylinders should be transported in a secure position, in a well ventilated vehicle.
The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious hazards and should be discouraged.

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