Material Safety Data Sheet

ARGON

Airco, Division of The BOC Group, Inc.
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Murray Hill, NJ 07974

Emergency Contact: CHEMTREC
Emergency Phone Number: (800)424-9300

SECTION #1 - IDENTIFICATION

Product: ARGON

CAS Number: 7440-37-1
Product Code: MSDS CODE G-6
Chemical Family: Rare Gas
Chemical Formula: Ar

Synonyms: G-6

Hazard Rating - Health: 1 Slight
- Fire: 0 Negligible
- Reactivity: 0 Negligible

SECTION #2 - CHEMICAL COMPONENTS

Component: ARGON
CAS Number: Not Established
Simple Asphyxiant - maintain oxygen levels above 19.5%

SECTION #3 - PHYSICAL DATA

Boiling Point: -302.6°F -189.9°C
Melting Point: -308.9°F -189.4°C
Vapor Density (Air=1): 1.38 (GAS)
Solubility (H2O): Slight

Appearance

A colorless gas.
Odor
Odorless

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA

Flash Point: None
Lower Explosive Limit (%): N/A
Upper Explosive Limit (%): N/A

Fire and Explosion Hazards
None.

Extinguishing Media
Nonflammable, inert gas - Use any extinguishing media which is suitable for the surrounding fire.

Special Fire Fighting Instructions
None.

SECTION #5 - EXPOSURE and EFFECTS - INHALATION

Routes of Exposure - Inhalation

Argon is a simple asphyxiant. Maintain oxygen levels above 19.5% at sea level. Effects of overexposure to high concentrations so as to displace the oxygen in the air necessary for life may include any, all or none of the following:

- Tingling of the tongue, fingertips or toes;
- Weakened speech leading to the inability to utter sounds;
- Rapid reduction in the ability to perform movements;
- Loss of tactile sensations;
- Heightened mental activity;

The above symptoms may or may not be present since there are no definite symptoms of exposure. Argon is nontoxic but the liberation of a large amount in a confined area could displace the amount of oxygen in air necessary to support life.
SECTION #5 - EXPOSURE and EFFECTS - INHALATION Continued...

First Aid - Inhalation

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

SECTION #5 - EXPOSURE and EFFECTS - SKIN

Routes of Exposure - Skin

Frostbite effects appear as a change in the color of the skin to gray or white possibly followed by blistering and may occur upon contact with liquid.

First Aid - Skin

For dermal contact or frostbite: Remove contaminated clothing and flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

SECTION #5 - EXPOSURE and EFFECTS - EYES

Routes of Exposure - Eyes

Contact with liquid may cause tissue freezing.

First Aid - Eyes

IMMEDIATELY FLUSH with tepid water in large quantities, or with sterile saline solution. Seek medical attention. DO NOT USE HOT WATER.

SECTION #5 - EXPOSURE and EFFECTS - INGESTION

Routes of Exposure - Ingestion

Since product is a gas at room temperature, ingestion is unlikely. Contact with liquid product may cause freezing of tissue and should be treated as frostbite. Consult a physician for treatment.
SECTION #5 - MISCELLANEOUS TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No  IARC: No  OSHA: No

SECTION #6 - REACTIVITY & POLYMERIZATION

Stability: Stable

Conditions to Avoid (Stability)

Product is an inert gas.

Hazardous Polymerization: Will Not Occur

SECTION #7 - SPILL, LEAK, & DISPOSAL PROCEDURES

Steps to be Taken in The Event of Spills, Leaks, or Release

Evacuate all personnel from affected areas. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, contact CHENTREC for emergency assistance or call your closest Airco location.

Waste Disposal Methods

Do not attempt to dispose of waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Airco for proper disposal.

SARA Hazard Classes: Sudden Release of Pressure Hazard

SECTION #8 - SPECIAL PROTECTIVE MEASURES

Ventilation

Use local exhaust ventilation to reduce concentrations to within current exposure limits. A laboratory type hood is suitable for handling small or limited quantities. Maintain oxygen levels above 19.5% at normal pressure.

Eye Protection

Safety goggles or glasses.
SECTION #8 - SPECIAL PROTECTIVE MEASURES Continued...

Skin Protection

Protective gloves made of any suitable material. Use insulated gloves if contact with liquid product may occur.

Respiratory Protection

An airline respirator with full face piece equipped with an escape bottle or a Self Contained Breathing Apparatus should be available for emergency use. Operate this equipment in the positive pressure demand mode, PPD!

Other Protection

Safety shoes, eyewash, safety shower.

SECTION #9 - SPECIAL PRECAUTIONS - STORAGE & HANDLING

Storage & Handling Conditions

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve protection outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<3000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder. Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non-combustible, construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125°F. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

SECTION #10 - SHIPPING INFORMATION

Proper Shipping Name: Argon or Argon, Compressed

Hazard Class: Nonflammable Gas
DOT Identification Number: UN1006
DOT Shipping Label: Nonflammable Gas
SECTION #11 - MISC COMMENTS & REFERENCE DOCUMENTATION

Argon is non-corrosive and may be used with any common structural material. Compressed gas cylinders should not be refilled except by qualified producers of compressed gases.Shipments of a compressed gas cylinder, which has not been filled by the owner or with his (written) consent, is a violation of Federal Law (49CFR). For additional recommendations, consult Compressed Gas Association Pamphlets P-1, P-14, P-9, and Safety Bulletin SB-2.

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