MATERIAL SAFETY DATA SHEET

Printing date 04/24/2009 Revision date 04/24/2009

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1 Identification of Substance

Product Details

Trade Name: Argon, compressed gas

Product No: G-6

Manufacturer/Supplier:

Linde
575 Mountain Avenue
Murray Hill, NJ 07974 USA
ph: 908-464-8100

Linde Gas Puerto Rico, Inc.
Las Palmas Village
Road No. 869, Street No. 7
Catano, Puerto Rico 00962
ph: 787-754-7445

Linde Canada Limited
5860 Chedworth Way
Mississauga, Ontario L5R 0A2
ph: 905-501-1700
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Information Department:
Linde U.S. National Operations Center: 1-800-232-4726 (for US and Puerto Rico assistance)

Emergency Information:
For U.S & Puerto Rico, CHEMTREC 24-HOUR EMERGENCY TELEPHONE NUMBER: 800-424-9300
For Canada, 24-HOUR EMERGENCY TELEPHONE NUMBER: 905-501-0802

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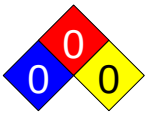
2 Hazards Identification

Hazard Description:
Odorless, colorless, nonflammable gas. Simple asphyxiant - this product does not contain oxygen and may cause asphyxia if released in a confined area. Maintain oxygen levels above 19.5%. Contents under pressure. Use and store below 125°F.

Emergency Overview:
Argon is a simple asphyxiant - it does not contain oxygen and may cause asphyxia if released in a confined area. Contact with rapidly venting argon gas near the point of release may cause frostbite.

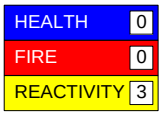
CLASSIFICATION SYSTEM:

NFPA Ratings (scale 0 - 4)



Health = 0
Fire = 0
Instability = 0
Special = SA

HMIS Ratings (scale 0 - 4)



Health = 0
Fire = 0
Physical Hazard = 3

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3 Composition/Data on Components

CAS No. Description
7440-37-1 Argon, compressed gas
IDENTIFICATION NUMBER(S):
EINECS Number: 231-147-0

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4 First aid measures

General Information:
Gas under pressure. May cause rapid suffocation. Contact with rapidly venting gas may cause frostbite or "cold" deep tissue burns.

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After 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 and, if breathing has stopped, administer artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

After skin contact:
None required for gas. For dermal contact or suspected frostbite, remove contaminated clothing and flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physican should see the patient promptly if contact with the product has resulted in blistering of the dermal surface or in deep tissue freezing.

After eye contact:
None required for gas. If frostbite is suspected, flush eyes with cool water for 15 minutes and obtain immediate medical attention.

After ingestion:
Unlikely, as the product is a gas at normal conditions of temperature and pressure. If cryogenic burns have resulted in blistering of the dermal surface or deep freezing tissues, seek medical attention promptly.

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5 Fire fighting measures

Flammable Properties:
Nonflammable. Cylinder may rupture violently from pressure or vent rapidly when involved in a fire situation.

Suitable extinguishing agents:
Use extinguishing media appropriate for the combustible material present. Use water spray to keep cylinders cool.

Protective equipment:
Firefighters should wear respiratory protection (SCBA) and full turnout or Bunker gear.

Fire Fighting Instructions:
Continue to cool fire-exposed containers until well after flames are extinguished.

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6 Accidental release measures

Person-related safety precautions:
Evacuate all personnel from the affected area. Use appropriate personal protective equipment (see Section 8). Stop the flow of gas or remove cylinder to outdoor location - ONLY if possible to do so without risk. Ventilate enclosed areas. If leak is in user's equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest Linde location.

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7 Handling and storage

HANDLING:
Information about protection against explosions and fires:
Keep ignition sources away. Do not smoke. Pressurized container - protect from sunlight and do not expose to temperatures exceeding 125°F. Do not pierce or burn container, even after use.

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STORAGE:
Requirements to be met by storerooms and receptacles:
Use only in well-ventilated areas. Use a suitable hand truck for cylinder movement. Valve protection caps must remain in place unless container is secured with valve outlet piped to the use point. Do not tip, drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Do not insert any object (i.e.: screwdriver) into valve cap openings as this can damage the valve, causing leakage. Protect containers from physical damage. Store in cool, dry, well-ventilated area 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. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time.

For additional recommendations, consult Compressed Gas Association Pamphlets P-1, P-9, P-18, SB-2 and G-11.1.

Specific applications:
Use a pressure-reducing regulator when connecting cylinder to lower pressure piping or systems. Do not heat cylinders 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 backflow into the system.

Security:
Store container in a secured area. Limit access to authorized personnel only. Report any incidents involving thefts, misuse, or inventory shortages to law enforcement and the supplier. Security shall be provided in accordance with all local, state and federal regulations.

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8 Exposure controls and personal protection

Engineering Controls:
Use local exhaust ventilation in combination with general ventilation as necessary to maintain atmospheric oxygen concentrations above 19.5%.

Components with limit values that require monitoring at the workplace:	
7440-37-1 Argon, compressed gas	
TLV	simple asphyxiant

PERSONAL PROTECTIVE EQUIPMENT:

Breathing equipment:
Positive pressure NIOSH-approved air-supplying respirator system (SCBA or airline/escape bottle) with a full-face mask and at a minimum of Grade D air should be available for emergency use.

Eye/face protection: Safety glasses or chemical goggles.

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9 Physical and chemical properties

GENERAL INFORMATION:

Form:	Compressed gas
Color:	Colorless
Odor:	Odorless

CHANGE IN CONDITION:
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 189.9°C (374°F)

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Flash point:	Not applicable
Danger of explosion:	Cylinder may rupture violently or or vent rapidly when involved in a fire situation.
Explosion limits:	
Lower:	none Vol %
Upper:	none Vol %
Density at 20°C (68°F):	0.00178 g/cm³
Solubility in / Miscibility with Water at 0°C (32°F):	0.56 g/l

10 Stability and reactivity

Thermal decomposition / Conditions to be avoided: Stable

Materials to be avoided: None. Product is an inert gas.

Dangerous reactions: None

Dangerous products of decomposition: None

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11 Toxicological information

ACUTE TOXICITY
PRIMARY IRRITANT EFFECT:

On the skin/eye:
Contact with rapidly expanding gas near the point of release may cause frostbite with redness, skin color change to gray or white, and blistering.

On inhalation:
Product is a simple asphyxiant. Maintain atmospheric oxygen concentration above 19.5%.

Other information (about experimental toxicology):
Oxyegn deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

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12 Ecological information

Environmental impact:
Not classified as a Class I or Class II ozone depleting substance. Not toxic. Will not bioaccumulate.

13 Disposal considerations

PRODUCT:
Recommendation:
Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ALL VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Linde or authorized distributor for proper disposal.

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UNCLEANED PACKAGING:
Recommendation: Same as above.

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14 Transport information

DOT regulations:

Hazard class:	2.2
Identification number:	UN1006
Packing group:	-
Proper shipping name (technical name):	ARGON, COMPRESSED
Label	2

Land transport ADR/RID (cross-border):

ADR/RID class:	2.2 1A
Danger code (Kemler):	22
UN-Number:	1006
Packaging group:	-
Label:	2.2
Description of goods:	1006 ARGON, COMPRESSED

Maritime transport IMDG:

IMDG Class:	2.2
UN Number:	1006
Label	2
Packaging group:	-
EMS Number:	F-C,S-V
Propper shipping name:	ARGON, COMPRESSED

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:	2.2
UN/ID Number:	1006
Label	2
Packaging group:	-

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Trade Name: Argon, compressed gas

Proper shipping name:	ARGON, COMPRESSED

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15 Regulations

SARA
Section 355 (extremely hazardous substances): Substance is not listed.
Section 313 (Specific toxic chemical listings): Substance is not listed.
TSCA (Toxic Substance Control Act):
The substance is listed.

7440-37-1	Argon, compressed gas

PROPOSITION 65:
Chemicals known to cause cancer: Substance is not listed.
Chemicals known to cause reproductive toxicity for females: Substance is not listed.
Chemicals known to cause reproductive toxicity for males: Substance is not listed.
Chemicals known to cause developmental toxicity: Substance is not listed.

CARCINOGENICITY CATEGORIES:

EPA (Environmental Protection Agency)		
7440-37-1	Argon, compressed gas	SARA Title III Sudden Release of Pressur

IARC (International Agency for Research on Cancer) Substance is not listed.
NTP (National Toxicology Program) Substance is not listed.
TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
NIOSH (National Institute for Occupational Safety and Health) Substance is not listed.
OSHA (Occupational Safety & Health Administration) Substance is not listed.

Product related hazard informations:
Observe the general safety regulations when handling chemicals.
The substance is not subject to classification according to the sources of literature known to us.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department Issuing MSDS: Linde Safety, Health, Environment and Quality
Contact: Refer to Linde web site for contact and product information at www.lindeus.com

Sources:

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ABBREVIATIONS AND ACRONYMS:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR/RID: Agreement on Dangerous Goods by Road/Regulation concerning the International Transport of Goods by Rail
CAS: Chemical Abstracts Service
DOT: US Department of Transportation
EINECS: European Inventory of Existing Chemical Substances
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
HMIS: Health Management Information System
IATA: International Air Transport Organization
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Organization
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the International Civil Aviation Organization
IMDG: International Marine Code for Dangerous Goods
NFPA: National Fire Protection Association

GENERAL DISCLAIMER
For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between Linde LLC, Linde Merchant Products or Linde Gas North America LLC (or any of their affiliates and subsidiaries) and the purchaser.

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