

Print MSDS Sheet

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION  
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MG INDUSTRIES  
3 GREAT VALLEY PARKWAY  
MALVERN, PENNSYLVANIA 19355  
PHONE: 610-695-7400  
FAX: 610-695-7596  
SUBSTANCE: ARGON, COMPRESSED  
TRADE NAMES/SYNONYMS:  
ARGON; STCC 4904502; UN 1006; AR; MGI01860; RTECS CF2300000  
CHEMICAL FAMILY: non-metallic  
CREATION DATE: May 04 1990  
REVISION DATE: Mar 22 2001

EMERGENCY CONTACT:  
CHEMTREC:  
1-800-424-9300

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SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS  
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COMPONENT: ARGON, COMPRESSED  
CAS NUMBER: 7440-37-1  
EC NUMBER (EINECS): 231-147-0  
PERCENTAGE: 100.0

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SECTION 3 HAZARDS IDENTIFICATION  
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NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0  
EMERGENCY OVERVIEW:  
PHYSICAL DESCRIPTION: Odorless, tasteless, colorless inert gas.  
MAJOR HEALTH HAZARDS: difficulty breathing  
PHYSICAL HAZARDS: Containers may rupture or explode if exposed to heat.  
POTENTIAL HEALTH EFFECTS:  
INHALATION:  
SHORT TERM EXPOSURE: nausea, vomiting, dizziness, tingling sensation,  
suffocation, convulsions, coma  
LONG TERM EXPOSURE: no information on significant adverse effects  
SKIN CONTACT:  
SHORT TERM EXPOSURE: blisters, frostbite  
LONG TERM EXPOSURE: no information is available  
EYE CONTACT:  
SHORT TERM EXPOSURE: frostbite, blurred vision  
LONG TERM EXPOSURE: no information is available  
INGESTION:  
SHORT TERM EXPOSURE: frostbite  
LONG TERM EXPOSURE: no information is available

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## CARCINOGEN STATUS:

OSHA: No  
NTP: No  
IARC: No

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SECTION 4 FIRST AID MEASURES  
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INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

EYE CONTACT: Flush eyes with plenty of water.  
INGESTION: If a large amount is swallowed, get medical attention.  
NOTE TO PHYSICIAN: For inhalation, consider oxygen.

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SECTION 5 FIRE FIGHTING MEASURES

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FIRE AND EXPLOSION HAZARDS: Negligible fire hazard. Containers may rupture or explode if exposed to heat.  
EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical  
Large fires: Use regular foam or flood with fine water spray.  
FIRE FIGHTING: Move container from fire area if it can be done without risk.  
Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

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SECTION 6 ACCIDENTAL RELEASE MEASURES

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OCCUPATIONAL RELEASE:  
Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

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SECTION 7 HANDLING AND STORAGE

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STORAGE: Cylinder temperature should not exceed 125 F (52 C).  
29 CFR Subpart "H"-Hazardous Materials.

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National Fire Protection Association publication #55, "Standard for the Storage, Use and Handling of Compressed and Liquified Gases in Portable Cylinders".  
Compressed Gas Association publication P-1, "Safe Handling of Compressed Gases in Containers".  
Store and handle in accordance with current regulations and standards:  
OSHA 29 CFR 1910.101

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SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

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EXPOSURE LIMITS:  
ARGON, COMPRESSED:  
ARGON:  
ACGIH (simple asphyxiant)  
VENTILATION: Based on available information, additional ventilation is not required. Ensure compliance with applicable exposure limits.  
EYE PROTECTION: For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.  
CLOTHING: For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.  
GLOVES: Wear insulated gloves.  
RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.  
For Unknown Concentrations or Immediately Dangerous to Life or Health -  
Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.  
Any self-contained breathing apparatus with a full facepiece.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL DESCRIPTION: Odorless, tasteless, colorless inert gas.  
MOLECULAR WEIGHT: 39.948  
MOLECULAR FORMULA: AR  
BOILING POINT: -303 F (-186 C)  
FREEZING POINT: -308 F (-189 C)  
VAPOR PRESSURE: 500 mmHg @ -190 C  
VAPOR DENSITY (air=1): 1.380  
SPECIFIC GRAVITY: Not applicable  
DENSITY: 1.784 g/L @ 0 C  
WATER SOLUBILITY: 3.36% @ 20 C  
PH: Not applicable  
VOLATILITY: Not applicable

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ODOR THRESHOLD: Not available  
EVAPORATION RATE: Not applicable  
VISCOSITY: 0.0225 cP @ 25 C  
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable  
SOLVENT SOLUBILITY:  
Soluble: organic solvents

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#### SECTION 10 STABILITY AND REACTIVITY

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REACTIVITY: Stable at normal temperatures and pressure.  
CONDITIONS TO AVOID: Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.  
INCOMPATIBILITIES:  
ARGON:  
No data available.  
POLYMERIZATION: Will not polymerize.

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#### SECTION 11 TOXICOLOGICAL INFORMATION

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##### HEALTH EFFECTS:

##### INHALATION:

ARGON: See information on simple asphyxiants.

##### ACUTE EXPOSURE:

SIMPLE ASPHYXIANTS: The symptoms of asphyxia depend on the rapidity with which the oxygen deficiency develops and how long it continues. In sudden acute asphyxia, unconsciousness may be immediate. With slow development there may be rapid respiration and pulse, air hunger, dizziness, reduced awareness, tightness in the head, tingling sensations, incoordination, faulty judgement, emotional instability, and rapid fatigue. As the asphyxia progresses, nausea, vomiting, collapse, unconsciousness, convulsions, deep coma and death are possible.

##### CHRONIC EXPOSURE:

SIMPLE ASPHYXIANTS: No data available.

##### SKIN CONTACT:

##### ACUTE EXPOSURE:

ARGON: No adverse effects have been reported from the gas. Due to rapid evaporation, the cryogenic liquid may cause frostbite with redness, tingling and pain or numbness. In more severe cases, the skin may become hard and white and develop blisters.

##### CHRONIC EXPOSURE:

ARGON: No data available.

##### EYE CONTACT:

##### ACUTE EXPOSURE:

ARGON: No adverse effects have been reported from the gas. Due to evaporation, the cryogenic liquid may cause frostbite with redness, pain, and blurred vision.

##### CHRONIC EXPOSURE:

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ARGON: No data available.

INGESTION:

ACUTE EXPOSURE:

ARGON: Ingestion of a gas is unlikely. If the cryogenic liquid is swallowed, frostbite damage to the lips, mouth and mucous membranes may occur.

CHRONIC EXPOSURE:

ARGON: No data available.

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SECTION 12 ECOLOGICAL INFORMATION  
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Not available  
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SECTION 13 DISPOSAL CONSIDERATIONS  
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Dispose in accordance with all applicable regulations.  
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SECTION 14 TRANSPORT INFORMATION  
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U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Argon, compressed

ID NUMBER: UN1006

HAZARD CLASS OR DIVISION: 2.2

LABELING REQUIREMENTS: Nonflammable gas

PACKAGING AUTHORIZATIONS:

EXCEPTIONS: 49 CFR 173.306

NON-BULK PACKAGING: 49 CFR 173.302

BULK PACKAGING: 49 CFR 173.314, 315

QUANTITY LIMITATIONS:

PASSENGER AIRCRAFT OR RAILCAR: 75 kg

CARGO AIRCRAFT ONLY: 150 kg

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

LAND TRANSPORT ADR/RID:

SUBSTANCE NAME: Argon, compressed

UN NUMBER: UN1006

ADR/RID CLASS: 2

ITEM NUMBER: 1(a)/1A

WARNING SIGN/LABEL: 2/2; 13

HAZARD ID NUMBER: 20

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AIR TRANSPORT IATA/ICAO:

PROPER SHIPPING NAME: Argon, compressed

UN/ID NUMBER: UN1006

IATA/ICAO CLASS: 2.2

LABEL: Nonflammable gas

MARITIME TRANSPORT IMDG:

CORRECT TECHNICAL NAME: Argon, compressed

UN/ID NUMBER: UN1006

IMDG CLASS: 2(2.2)

EmS No.: 2-04

MFAG Table No.: 620

IMDG CODE PAGE: 2105  
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SECTION 15 REGULATORY INFORMATION  
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U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):

Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):

Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

ACUTE: Yes

CHRONIC: No

FIRE: No

REACTIVE: No

SUDDEN RELEASE: Yes

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

GERMAN REGULATIONS:

WATER HAZARD CLASS (WGK):

STATE OF CLASSIFICATION: VwVwS

CLASSIFICATION UNDER HAZARD TO WATER: 0

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

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TSCA 12(b) EXPORT NOTIFICATION: Not listed.

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SECTION 16 OTHER INFORMATION  
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