

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

MATHESON TRI-GAS, INC.
150 Allen Road Suite 302
Basking Ridge, New Jersey 07920
Information: 1-800-416-2505

Emergency Contact:
CHEMTREC 1-800-424-9300
Calls Originating Outside the US:
703-527-3887 (Collect Calls Accepted)

PRODUCT NAME: ARGON, COMPRESSED

TRADE NAMES/SYNONYMS:
MTG MSDS 5; ARGON; UN 1006; AR; MAT01860

CHEMICAL FAMILY: non-metallic

PRODUCT USE: industrial

RESTRICTIONS ON USE: none known

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:
Gas under pressure, Compressed gas

GHS SYMBOL:



GHS SIGNAL WORD: WARNING

GHS HAZARD STATEMENT:
Contains gas under pressure; may explode if heated

GHS PRECAUTIONARY STATEMENTS: Protect from sunlight. Store in a well-ventilated place.

EMERGENCY OVERVIEW:

PHYSICAL HAZARDS: Containers may rupture or explode if exposed to heat.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: nausea, vomiting, difficulty breathing, irregular heartbeat, headache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

LONG TERM EXPOSURE: no information is available

SKIN CONTACT:

SHORT TERM EXPOSURE: 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: ingestion of a gas is unlikely

LONG TERM EXPOSURE: ingestion of a gas is unlikely

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT: ARGON, COMPRESSED

CAS NUMBER: 7440-37-1

EC NUMBER (EINECS): 231-147-0

PERCENTAGE: 100.0

4. FIRST AID MEASURES

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: Wash exposed skin with soap and water.

EYE CONTACT: Flush eyes with plenty of water.

INGESTION: If a large amount is swallowed, get medical attention.

SYMPTOMS/EFFECTS:

ACUTE: suffocation

DELAYED: no data available

NOTE TO PHYSICIAN: For inhalation, consider oxygen.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard. Pressurized containers may rupture or explode if exposed to sufficient heat.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

Large fires: Use water spray to keep containers cool.

UNSUITABLE EXTINGUISHING MEDIA: None known.

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).

FIRE FIGHTING PROTECTIVE EQUIPMENT: Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Wear personal protective clothing and equipment, see Section 8.

EMERGENCY PROCEDURES:

Do not extinguish, unless leak can be stopped safely. Reduce vapors with water spray. Eliminate all ignition sources if safe to do so. Keep unnecessary people away, isolate hazard area and deny entry.

ENVIRONMENTAL PRECAUTIONS:

Avoid release to the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP:

Avoid heat, flames, sparks and other sources of ignition. Ventilate closed spaces before entering. Damaged cylinders should be handled only by specialists.

7. HANDLING AND STORAGE

HANDLING: Avoid breathing gas. Use only with adequate ventilation.

STORAGE: Store and handle in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated area. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

ARGON, COMPRESSED:

ARGON:

ACGIH (simple asphyxiant)

BIOLOGICAL LIMIT VALUES:

ARGON, COMPRESSED:

No biological limit value(s) available.

ENGINEERING CONTROLS: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Eye protection not required, but recommended.

CLOTHING: Protective clothing is not required.

GLOVES: Wear appropriate chemical resistant 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 a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas

COLOR: colorless

ODOR: odorless

TASTE: tasteless

MOLECULAR WEIGHT: 39.948

MOLECULAR FORMULA: Ar

BOILING POINT: -186 C

FREEZING POINT: -189 C

FLASH POINT: Not available

LOWER FLAMMABLE LIMIT: Not available

UPPER FLAMMABLE LIMIT: Not available

AUTOIGNITION: Not available

DECOMPOSITION POINT: Not available

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
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
VISCOSITY: 0.0225 cP @ 25 C
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable
OCTANOL/WATER PARTITION COEFFICIENT (LOG K_{ow}): Not available.
SOLVENT SOLUBILITY:
Soluble: organic solvents

10. STABILITY AND REACTIVITY

STABILITY: 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: No data available.

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: No data available.

POSSIBILITY OF HAZARDOUS REACTIONS: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

ARGON, COMPRESSED:
LIKELY ROUTES OF EXPOSURE: inhalation, skin, eyes
ASPIRATION HAZARD: Not applicable.
SENSITIZER:
DERMAL: No data available.
RESPIRATORY: No data available.
EFFECTS FROM EXPOSURE:
IMMEDIATE: suffocation, frostbite
DELAYED: no data available
IRRITATION DATA: No animal testing data available for skin or eyes.
CARCINOGEN STATUS: No data available.
LOCAL EFFECTS:
No data available.
TARGET ORGANS: simple asphyxiant
CHRONIC EFFECTS:
No data available.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

TUMORIGENIC DATA: No data available.

MUTAGENIC DATA: No data available.

REPRODUCTIVE EFFECTS DATA: No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

FISH TOXICITY: No data available.

INVERTEBRATE TOXICITY: No data available.

ALGAL TOXICITY: No data available.

FATE AND TRANSPORT:

BIODEGRADATION: No data available.

MOBILITY: No data available.

PERSISTENCE: No data available.

BIOACCUMULATION: No data available.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Argon, compressed

ID NUMBER: UN1006

HAZARD CLASS OR DIVISION: 2.2

LABELING REQUIREMENTS: 2.2

MARITIME TRANSPORT IMDG:

PROPER SHIPPING NAME: Argon, compressed

UN NUMBER: UN1006

CLASS OR DIVISION: 2.2

15. REGULATORY INFORMATION

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: A.

NATIONAL INVENTORY STATUS:

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

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Listed on inventory.

16. OTHER INFORMATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

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