



# MATERIAL SAFETY DATA SHEET

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC. Emergency Contact:

150 Allen Road Suite 302 CHEMTREC 1-800-424-9300

Basking Ridge, New Jersey 07920 Calls Originating Outside the US:

Information: 1-800-416-2505 703-527-3887 (Collect Calls Accepted)

**SUBSTANCE: ARGON, COMPRESSED** 

TRADE NAMES/SYNONYMS:

MTG MSDS 5; ARGON; UN 1006; AR; MAT01860; RTECS CF2300000

**CHEMICAL FAMILY:** non-metallic

**PRODUCT USE:** industrial

**CREATION DATE:** Mar 07 1990 **REVISION DATE:** Dec 11 2008

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

**COMPONENT:** ARGON, COMPRESSED

CAS NUMBER: 7440-37-1 PERCENTAGE: 100.0

### 3. HAZARDS IDENTIFICATION

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

**EMERGENCY OVERVIEW:** 

**COLOR:** colorless

PHYSICAL FORM: gas

**ODOR:** odorless

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, difficulty breathing, irregular heartbeat, headache,





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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

#### 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.

**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.

**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.





FLASH POINT: Not available

LOWER FLAMMABLE LIMIT: Not available UPPER FLAMMABLE LIMIT: Not available

**AUTOIGNITION:** Not available

### 6. ACCIDENTAL RELEASE MEASURES

#### **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.

#### 7. HANDLING AND STORAGE

**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.

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

### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

#### **EXPOSURE LIMITS:**

**ARGON, COMPRESSED:** 

**ARGON:** 

ACGIH (simple asphyxiant)

**VENTILATION:** 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.



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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: -303 F (-186 C) FREEZING POINT: -308 F (-189 C)

**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

**SOLVENT SOLUBILITY: Soluble:** organic solvents

#### 10. STABILITY AND REACTIVITY

**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:** No data available.

### **HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: No data available.

**POLYMERIZATION:** Will not polymerize.



### 11. TOXICOLOGICAL INFORMATION

**ARGON, COMPRESSED:** 

**TARGET ORGANS:** simple asphyxiant

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

#### 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.

### 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

## CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Argon, compressed

**UN NUMBER: UN1006** 

**CLASS: 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 Subpart B):** Not regulated.

**SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C):** Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B

**and C**):

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 (29 CFR 1910.119): 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

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