



**MATHESON**

ask...The Gas Professionals™

**Safety Data Sheet**

**Material Name: Argon/Nitrogen Mix**

**SDS ID: 00244404**

**\*\*\* Section 1 - IDENTIFICATION\*\*\***

**Manufacturer Information**

MATHESON TRI-GAS, INC.  
150 Allen Road, Suite 302  
Basking Ridge, NJ 07920

General Information: 1-800-416-2505  
Emergency #: 1-800-424-9300 (CHEMTREC)  
Outside the US: 703-527-3887 (Call collect)

**Material Name: Argon/Nitrogen Mix**

**Product Use**

instrument calibration

**Restrictions on Use**

None known.

**\*\*\* Section 2 - HAZARDS IDENTIFICATION\*\*\***

**GHS Classification**

Gas under pressure, Compressed gas

**GHS LABEL ELEMENTS**

**Symbol(s)**



**Signal Word**

WARNING

**Hazard Statement(s)**

Contains gas under pressure; may explode if heated

**Precautionary Statement(s)**

**Storage**

Store in a well-ventilated place.

Protect from sunlight.

**Other Hazards which do not Result in Classification**

May cause asphyxia. May cause frostbite upon sudden release of compressed gas.

**\*\*\* Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\***

CAS#	Component	Percent
7727-37-9	Nitrogen	91.5-99.5
7440-37-1	Argon	0.5-8.5

**\*\*\* Section 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**

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.

**Eyes**

Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

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## Ingestion

If a large amount is swallowed, get medical attention.

## Note to Physicians

For inhalation, consider oxygen.

## Symptoms: Immediate

frostbite, suffocation.

## Symptoms: Delayed

No information on significant adverse effects.

### \*\*\* Section 5 - FIRE FIGHTING MEASURES\*\*\*

See Section 9 for Flammability Properties

## Specific Hazards Arising from the Chemical

Negligible fire hazard. Containers may rupture or explode if exposed to heat.

## Extinguishing Media

Use extinguishing agents appropriate for surrounding fire.

## Unsuitable Extinguishing Media

None known.

## Protective Equipment and Precautions for Firefighters

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

## Fire Fighting Measures

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. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Cool containers with water. Apply water from a protected location or from a safe distance.

## Hazardous Combustion Products

Combustion: oxides of nitrogen

### \*\*\* Section 6 - ACCIDENTAL RELEASE MEASURES\*\*\*

## Personal Precautions

Wear personal protective clothing and equipment, see Section 8.

## Environmental Precautions

Avoid release to the environment.

## Methods for Containment

Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

## Cleanup Methods

Stop leak if possible without personal risk. Avoid contact with combustible materials.

### \*\*\* Section 7 - HANDLING AND STORAGE\*\*\*

## Handling Procedures

Wash thoroughly after handling.

## Storage Procedures

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Protect from sunlight. Cylinders should be stored upright (with valve protection cap in place). Store in a dry place. Store below 52 C. Keep separated from incompatible substances.

### \*\*\* Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\*\*\*

## Component Exposure Limits

Nitrogen (7727-37-9)

ACGIH: Simple asphyxiant

Argon (7440-37-1)

ACGIH: Simple asphyxiant

## Component Biological Limit Values

There are no biological limit values for any of this product's components.

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## Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

## PERSONAL PROTECTIVE EQUIPMENT

### Eyes/Face

For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles with a faceshield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

### Protective Clothing

For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

### Glove Recommendations

For the gas: Protective gloves are not required, but recommended. For the liquid: Wear insulated gloves.

### Respiratory Protection

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 face piece 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 face piece and is operated in a pressure-demand or other positive-pressure mode.

## \*\*\* Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\*

<b>Physical State:</b> gas	<b>Appearance:</b> Colorless gas
<b>Color:</b> colorless	<b>Physical Form:</b> compressed gas
<b>Odor:</b> odorless	<b>Odor Threshold:</b> Not available
<b>pH:</b> Not available	<b>Melting/Freezing Point:</b> Not available
<b>Boiling Point:</b> Not available	<b>Flash Point:</b> non-flammable
<b>Decomposition:</b> Not available	<b>Evaporation Rate:</b> Not available
<b>LEL:</b> Not available	<b>UEL:</b> Not available
<b>Vapor Pressure:</b> Not available	<b>Vapor Density (air = 1):</b> Not available
<b>Specific Gravity (water=1):</b> Not available	<b>Water Solubility:</b> Not available
<b>Log KOW:</b> Not available	<b>Coeff. Water/Oil Dist:</b> Not available
<b>Auto Ignition:</b> Not available	<b>Viscosity:</b> Not available

## \*\*\* Section 10 - STABILITY AND REACTIVITY\*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

### Possibility of Hazardous Reactions

Will not polymerize.

### Incompatible Materials

metals

### Hazardous Decomposition

**Combustion:** oxides of nitrogen

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### \*\*\* Section 11 - TOXICOLOGICAL INFORMATION\*\*\*

#### Acute and Chronic Toxicity

##### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

##### RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

##### Immediate Effects

frostbite, suffocation

##### Delayed Effects

No information on significant adverse effects.

##### Irritation/Corrosivity Data

See component data.

##### RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

##### Respiratory Sensitizer

No data available.

##### Dermal Sensitizer

No data available.

##### Carcinogenicity

##### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

##### Mutagenic Data

No data available for the mixture.

##### Reproductive Effects Data

No data available for the mixture.

##### Tumorigenic Data

No data available for the mixture.

##### Specific Target Organ Toxicity - Single Exposure

No data available.

##### Specific Target Organ Toxicity - Repeated Exposure

No data available.

##### Aspiration Hazard

Not applicable.

##### Medical Conditions Aggravated by Exposure

None known.

### \*\*\* Section 12 - ECOLOGICAL INFORMATION\*\*\*

##### Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

##### Persistence and Degradability

No data available for the mixture.

##### Bioaccumulative Potential

No data available for the mixture.

##### Mobility in Environmental Media

No data available for the mixture.

### \*\*\* Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

##### Disposal Methods

Dispose in accordance with all applicable regulations.

##### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

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## \*\*\* Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

Shipping Name: Compressed gas, n.o.s. (Contains: Nitrogen, Argon)

UN/NA #: UN1956 Hazard Class: 2.2

Required Label(s): 2.2

### IMDG Information

Shipping Name: Compressed gas, n.o.s. (Contains: Nitrogen, Argon)

UN #: UN1956 Hazard Class: 2.2

Required Label(s): 2.2

## \*\*\* Section 15 - REGULATORY INFORMATION\*\*\*

### Component Analysis

#### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

#### SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: No Fire: No Pressure: Yes Reactive: No

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Nitrogen	7727-37-9	No	Yes	Yes	Yes	Yes	Yes
Argon	7440-37-1	No	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

#### Component Analysis - Inventory

All the components of this substance are listed on or are exempt from the TSCA inventory listing.

#### Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Nitrogen	7727-37-9	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Argon	7440-37-1	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

## \*\*\* Section 16 - OTHER INFORMATION\*\*\*

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

New SDS: 6/8/2011

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### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Other Information

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