

Safety Data Sheet

Material Name: <=7.7% Methane in Argon

SDS ID: 00244977

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Material Name

<=7.7% Methane in Argon

Product Description

This SDS is created according to the Israeli Standard 2302. Classification determined in accordance with Compressed Gas Association standards.

Details of the supplier of the safety data sheet

MATHESON TRI-GAS, INC.

909 Lake Carolyn Parkway

Suite 1300

Irving, TX 75039

USA

Phone: General Information: 1-800-416-2505

Emergency Phone #: 1-800-424-9300 (CHEMTREC).

Outside the US: 703-527-3887 (Call collect)

Importer: Semel

31 Lehi Bnei-Brak 51200

Israel

Postal address

P.O.Box 7355 Ramat Gan

Israel

Phone: +972-(0)3-6764586

Fax: +972-(0)3-677-1280

SECTION 2: Ingredients

CAS	Component Name	Percent
7440-37-1	Argon	92.3-100
74-82-8	Methane	0-7.7

Impurities and stabilizing additives contributing to the GHS Classification

None

SECTION 3: Hazard Identification

GHS Classification

Gases Under Pressure - Compressed gas

Label elements

Hazard symbols



Signal word

Warning

Hazard statements

H280 Contains gas under pressure; may explode if heated.

Precautionary statements

Prevention

None needed according to classification criteria.

Response

None needed according to classification criteria.

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Storage

P410+P403 Protect from sunlight. Store in a well-ventilated place.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards Which Do Not Result in Classification

Simple Asphyxiant: May displace oxygen and cause rapid suffocation. Rapid release of compressed gas may cause frostbite.

SECTION 4: First aid measures

Description of Necessary 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

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.

Eye contact

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

Ingestion

If swallowed, get medical attention.

Most Important Symptoms/Effects

Symptoms: Immediate

frostbite, suffocation

Symptoms: Delayed

No information on significant adverse effects.

Note to Physicians

For inhalation, consider oxygen.

Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

Suitable extinguishing media

carbon dioxide, regular dry chemical

Unsuitable Extinguishing Media

None known.

Specific hazards arising from the chemical

Negligible fire hazard. Pressurized containers may rupture or explode if exposed to sufficient heat.

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. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Do not direct water at source of leak or safety devices; icing may occur. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Use extinguishing agents appropriate for surrounding fire. Apply water from a protected location or from a safe distance. Reduce vapors with water spray.

Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Consider downwind evacuation if material is leaking.

Hazardous Combustion Products

Oxides of carbon

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protective clothing and equipment, see Section 8.

Environmental precautions

Avoid release to the environment.

Methods for Containment

Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Do not direct water at source of leak or safety devices; icing may occur. Stay upwind and keep out of low areas. This gas will be dissipated rapidly in well ventilated areas. Ventilate closed spaces before entering.

SECTION 7: Handling and storage

Precautions for safe handling

Damaged cylinders should be handled only by specialists. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Protect from sunlight. Store in a well-ventilated place.

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

Incompatible Materials

halogens, oxidizing materials, combustible materials

SECTION 8: Exposure controls/personal protection

Exposure Guidelines

Component Exposure Limits

Argon	7440-37-1
ACGIH:	(See Appendix F: Minimal Oxygen Content)
Methane	74-82-8
ACGIH:	(See Appendix F: Minimal Oxygen Content, explosion hazard)

Biological limit value

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

Appropriate engineering controls

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

PERSONAL PROTECTIVE EQUIPMENT

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. 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.

Hand protection

Wear chemical resistant, insulated gloves.

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Eye/face protection

For the gas: Eye protection not required, but recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

SECTION 9: Physical and chemical properties			
Appearance	colorless gas	Physical State	gas
Odor	odorless	Color	colorless
Odor Threshold	Not available	pH	Not available
Melting Point	-189 °C (-308 °F Argon)	Boiling Point	-186 °C (-303 °F Argon)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	(Not flammable)
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	500 mmHg @ -190 °C
Vapor Density (air=1)	1.38 (Argon)	Specific Gravity (water=1)	Not available
Water Solubility	3.36 % (@ 20 °C)	Partition coefficient: n-octanol/water	Not available
Viscosity	0.0225 cp	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	1.784 g/L at 0 °C
Physical Form	gas	Molecular Weight	Not available

SECTION 10: Stability and reactivity			
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Reactivity

No reactivity hazard is expected.

Chemical stability

Stable at normal temperatures and pressure.

Possibility of hazardous reactions

Will not polymerize.

Conditions to avoid

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

Materials to Avoid (Incompatibilities)

halogens, oxidizing materials, combustible materials

Hazardous decomposition products

Oxides of carbon

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SECTION 11: Toxicological information

Information on Likely Routes of Exposure

Inhalation

nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, Disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

Skin

frostbite

Eye

frostbite

Ingestion

Ingestion of gas is unlikely.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Methane (74-82-8)

Dermal LD50 Rat >2000 mg/kg

Inhalation LC50 Rat 539600 ppm 2 h

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Gas	> 20000 ppm

Immediate Effects

frostbite, suffocation

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No information on significant adverse effects.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

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

Mutagenic Data

No data available.

Reproductive Effects Data

No data available.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

Not applicable

Medical Conditions Aggravated by Exposure

None known.

SECTION 12: Ecological information

Component Analysis - Aquatic Toxicity

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

Other Ecotoxicity Information

No additional information is available.

Mobility in soil

No data available for the mixture.

Persistence and Degradability

No data available for the mixture.

Bioaccumulative potential

No data available for the mixture.

Other adverse effects

None

SECTION 13: Disposal considerations

Disposal Methods

Dispose in accordance with all applicable regulations.

Contaminated packaging disposal

Dispose in accordance with all applicable local regulations.

SECTION 14: Transport information

IATA Information:

Shipping Name: COMPRESSED GAS, N.O.S. , (Contains: Argon , Methane)

Hazard Class: 2.2

UN#: UN1956

Required Label(s): 2.2

ICAO Information:

Shipping Name: COMPRESSED GAS, N.O.S. , (Contains: Argon , Methane)

Hazard Class: 2.2

UN#: UN1956

Required Label(s): 2.2

IMDG Information:

Shipping Name: COMPRESSED GAS, N.O.S. , (Contains: Argon , Methane)

Hazard Class: 2.2

UN#: UN1956

Required Label(s): 2.2

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Special precautions

None

SECTION 15: Regulatory information

Environmental Protection Law - Pollutant Release and Transfer Register (PRTR) - Threshold Quantities

Methane	74-82-8
	10000 kg TQ (air)

Risk Management for Hazardous Materials - Separation Distances in Stationary Hazardous Sources - Toxic Substances

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None of this product's components are on the list

Risk Management for Hazardous Materials - Policy of Accidental Release Prevention - Flammable Substances

Methane	74-82-8
	5000 kg TQ

Risk Management for Hazardous Materials - Policy of Accidental Release Prevention - Propellant Substances

None of this product's components are on the list

Hazardous Substances Law

None of this product's components are on the list

Component Analysis - Inventory

Argon (7440-37-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Methane (74-82-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

SECTION 16: Other information

NFPA Ratings

Health: 2 Fire: 0 Instability: 0 Other: SA

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

Preparation Date

New SDS: 6 June 2018

Product Use

Industrial and Specialty Gas Applications.

Restrictions on Use

None known.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations

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(US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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