

# Safety Data Sheet

Material Name: CYCLOPROPANE

SDS ID: 00233328

---

## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

---

**Material Name**  
CYCLOPROPANE

**Synonyms**  
Trimethylene; Trimethylene (cyclic); Cyclic trimethylene; Stcc 4905713; UN 1027; C<sub>3</sub>H<sub>6</sub>;

**Chemical Family**  
Hydrocarbons, alicyclic

**Product Use**  
Industrial and Specialty Gas Applications.

**Restrictions on Use**  
None known.

**Details of the supplier of the safety data sheet**

ADVANCED GAS TECHNOLOGIES  
1401 Stauffer Road  
Palm, PA 18070-0035  
Phone: 1-800-416-2505  
Emergency Phone #: Outside the US: 703-527-3887 (Call collect)  
Fax: 1-800-424-9300 (CHEMTREC)

---

## Section 2 - HAZARDS IDENTIFICATION

---

**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Flammable Gases - Category 1  
Gases Under Pressure - Liquefied gas  
Specific Target Organ Toxicity - Single Exposure - Category 3

**GHS Label Elements**

**Symbol(s)**



**Signal Word**  
Danger

**Hazard Statement(s)**  
Extremely flammable gas.  
Contains gas under pressure; may explode if heated.  
May cause drowsiness or dizziness.

**Precautionary Statement(s)**

# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

## Prevention

Keep away from heat/sparks/open flame/hot surfaces - No smoking.  
Use only outdoors or in a well-ventilated area.  
Avoid breathing dust/fume/gas/mist/vapours/spray.

## Response

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
Eliminate all ignition sources if safe to do so.  
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor if you feel unwell.

## Storage

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Protect from sunlight.

## Disposal

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

---

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

---

CAS	Component Name	Percent
75-19-4	Cyclopropane	100.0

The chemical identity and/or percentage of composition is being withheld as a trade secret.

---

## 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

Flush eyes with plenty of water.

### Ingestion

If swallowed, get medical attention.

### Most Important Symptoms/Effects

#### Acute

Frostbite, central nervous system depression, May cause drowsiness or dizziness

# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

## **Delayed**

No information on significant adverse effects.

## **Note to Physicians**

For inhalation, consider oxygen.

---

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

---

### **Extinguishing Media**

#### **Suitable Extinguishing Media**

carbon dioxide, regular dry chemical, Large fires: Flood with fine water spray.

#### **Unsuitable Extinguishing Media**

Do not direct water at source of leak or safety devices; icing may occur.

#### **Special Hazards Arising from the Chemical**

Severe fire hazard. Severe explosion hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Dust/air mixtures may ignite or explode. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

#### **Hazardous Combustion Products**

Oxides of carbon.

#### **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. 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: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Stop flow of gas.

#### **Special Protective Equipment and Precautions for Firefighters**

Wear personal protective clothing and equipment such as self-contained breathing apparatus (SCBA) for protection against possible exposure.

---

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

---

### **Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment, see Section 8.

#### **Methods and Materials for Containment and Cleaning Up**

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed spaces before entering. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304).

#### **Environmental Precautions**

# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

Avoid release to the environment.

---

## Section 7 - HANDLING AND STORAGE

---

### **Precautions for Safe Handling**

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray.

### **Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight.

Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.

### **Incompatible Materials**

oxidizing materials

---

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

---

### **Component Exposure Limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

### **EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures**

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

### **ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**

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

### **Engineering Controls**

Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.

### **Individual Protection Measures, such as Personal Protective Equipment**

#### **Eye/face 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.

#### **Skin Protection**

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

#### **Respiratory Protection**

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

#### **Glove Recommendations**

Wear insulated gloves.

# Safety Data Sheet

Material Name: CYCLOPROPANE

SDS ID: 00233328

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Not available	<b>Physical State</b>	gas
<b>Odor</b>	faint odor,sweet odor	<b>Color</b>	colorless
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	-128 °C (-198 °F)	<b>Boiling Point</b>	-33 °C (-27 °F)
<b>Freezing point</b>	Not available	<b>Evaporation Rate</b>	Not available
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	498 °C (928 °F)	<b>Flash Point</b>	Not available
<b>Lower Explosive Limit</b>	2.4 %	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	10.4 %	<b>Vapor Pressure</b>	3878.25 mmHg at 21 °C
<b>Vapor Density (air=1)</b>	1.45	<b>Specific Gravity (water=1)</b>	0.72 at -79 °C
<b>Water Solubility</b>	37 % (@ 15 °C)	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	0.00874 cp	<b>Solubility (Other)</b>	Not available
<b>Density</b>	Not available	<b>Physical Form</b>	liquefied gas
<b>Taste</b>	pungent taste	<b>Molecular Formula</b>	C3-H6
<b>Molecular Weight</b>	42.08		

### Solvent Solubility

#### Soluble

alcohol, ether, Benzene, petroleum ether, fixed oils

## Section 10 - STABILITY AND REACTIVITY

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Possibility of Hazardous Reactions

# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

Will not polymerize.

## **Conditions to Avoid**

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

## **Incompatible Materials**

oxidizing materials

## **Hazardous decomposition products**

Oxides of carbon

---

## Section 11 - TOXICOLOGICAL INFORMATION

---

### **Information on Likely Routes of Exposure**

#### **Inhalation**

mild irritation, nausea, vomiting, irregular heartbeat, headache, drowsiness, symptoms of drunkenness, convulsions, coma May cause drowsiness or dizziness.

#### **Skin Contact**

frostbite

#### **Eye Contact**

frostbite, blurred vision

#### **Ingestion**

no information on significant adverse effects

### **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

#### **Immediate Effects**

Frostbite, central nervous system depression, May cause drowsiness or dizziness

#### **Delayed Effects**

No information on significant adverse effects.

#### **Irritation/Corrosivity Data**

No data available.

#### **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

#### **Germ Cell Mutagenicity**

No data available.

#### **Tumorigenic Data**

# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

No data available

**Reproductive Toxicity**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

Category 3. central nervous system

**Specific Target Organ Toxicity - Repeated Exposure**

**Aspiration hazard**

No data available.

**Medical Conditions Aggravated by Exposure**

No data available.

**Additional Data**

Interactions with drugs may occur. Stimulants such as epinephrine may induce ventricular fibrillation.

---

## Section 12 - ECOLOGICAL INFORMATION

---

**Component Analysis - Aquatic Toxicity**

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

**Persistence and Degradability**

Not expected to undergo hydrolysis in the environment.

**Bioaccumulative Potential**

Bioconcentration potential in aquatic organisms is low.

**Mobility**

Expected to have moderate mobility in soil.

---

## 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

---

## Section 14 - TRANSPORT INFORMATION

---

**US DOT Information:**

**Shipping Name:** Cyclopropane

**Hazard Class:** 2.1

**UN/NA #:** UN1027

**Required Label(s):** 2.1

# Safety Data Sheet

Material Name: CYCLOPROPANE

SDS ID: 00233328

**IMDG Information:**

**Shipping Name:** Cyclopropane

**Hazard Class:** 2.1

**UN#:** UN1027

**Required Label(s):** 2.1

---

## Section 15 - REGULATORY INFORMATION

---

### 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 Section 311/312 (40 CFR 370 Subparts B and C)

**Acute Health:** Yes **Chronic Health:** No **Fire:** Yes **Pressure:** Yes **Reactivity:** 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
Cyclopropane	75-19-4	No	Yes	No	Yes	Yes

### Not listed under California Proposition 65

### Canadian WHMIS Ingredient Disclosure List (IDL)

The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

### WHMIS Classification

AB

### Component Analysis - Inventory

Cyclopropane (75-19-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	No

---

## Section 16 - OTHER INFORMATION

---

### NFPA Ratings

Health: 1 Fire: 4 Reactivity: 0

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

### Summary of Changes

Updated: 05/01/2015

### Key / Legend



# Safety Data Sheet

**Material Name: CYCLOPROPANE**

**SDS ID: 00233328**

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; 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; 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; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; 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; 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; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; 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**

### **Disclaimer:**

Matheson Tri-Gas, Inc. makes no express or implied warranties, guarantees or representations regarding the product or the information herein, including but not limited to any implied warranty or merchantability or fitness for use. Matheson Tri-Gas, Inc. shall not be liable for any personal injury, property or other damages of any nature, whether compensatory, consequential, exemplary, or otherwise, resulting from any publication, use or reliance upon the information herein.