

In Case of Emergency: Chemtrec 800-424-9300

### Section 1: Product and Company Identification

**Gas and Supply**  
125 Thruway Park  
Broussard, LA 70518  
877-441-7311  
Fax: 337-839-8235  
www.gasandsupply.com

Part Number: GSPCEYP30RLP5GC

**Synonyms:**

**Recommended Use:** Synthetic/Analytical Chemistry

**Usage Restrictions:**

### Section 2: Hazards Identification



## Danger

**Hazard Classification:**

Flammable (Category 1)  
Gases Under Pressure  
Specific target organ toxicity (Single Exposure) (Category 3)

**Hazard Statements:**

Contains gas under pressure; may explode if heated  
Extremely flammable gas  
May cause respiratory irritation;

**Precautionary Statements**

**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Use only outdoors or in a well-ventilated area.  
Avoid breathing dust/fume/gas/mist/ vapors/spray.  
[In case of inadequate ventilation] wear respiratory protection.

**Response:**

If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Eliminate all ignition sources if safe to do so.  
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
Call a poison center or doctor if you feel unwell.

**Storage:**

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

**Disposal:**

Dispose of contents and/or container in accordance with applicable regulations.

**Section 3: Composition/Information on Ingredients**

	CAS #	Concentration
Propylene	115-07-1	30%
Ethylene	74-85-1	70%

	Chemical Substance	Chemical Family	Trade Names
Propylene	PROPYLENE	Hydrocarbons, Aliphatic, Unsaturated	PROPENE; METHYLETHENE; METHYLETHYLENE; 1-PROPYLENE; 1-PROPENE; UN 1077; C3H6
Ethylene	Ethylene	Hydrocarbons, Aliphatic, Unsaturated	ACETENE; ETHENE; ETHYLENE, COMPRESSED GAS; OLEFIANT GAS; BICARBURETTED HYDROGEN; UN 1962; C2H4

**Section 4: First Aid Measures**

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Propylene	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.	Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	If a large amount is swallowed, get medical attention.	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.	For inhalation, consider oxygen.
Ethylene	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.	Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Do not induce vomiting. Seek immediate medical attention. Check for frostbite. Thaw frostbite slowly with lukewarm water. Avoid mouth-to-mouth contact by using a mouth shield or guard to perform artificial respiration.	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.	For inhalation, consider oxygen.

## Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
<b>Propylene</b>	Carbon dioxide, regular dry chemical Large fires: Flood with fine water spray.	Toxic, irritating gases	<ul style="list-style-type: none"> <li>Any self-contained breathing apparatus with a full facepiece.</li> <li>Any self-contained breathing apparatus with a full facepiece.</li> </ul>
<b>Ethylene</b>	Carbon dioxide, regular dry chemical Large fires: Flood with fine water spray.	Carbon monoxide, carbon dioxide and toxic and irritating fumes	<ul style="list-style-type: none"> <li>Any self-contained breathing apparatus with a full facepiece.</li> <li>Any self-contained breathing apparatus with a full facepiece.</li> </ul>

## Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
<b>Propylene</b>	Keep unnecessary people away, isolate hazard area and deny entry. Do not touch spilled material. Ventilate closed spaces before entering.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
<b>Ethylene</b>	Keep unnecessary people away, isolate hazard area and deny entry. Do not touch spilled material. Ventilate closed spaces before entering.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.

	Methods for Cleanup	Other Information
<b>Propylene</b>	Evacuate area. Contact emergency personnel	None
<b>Ethylene</b>	Avoid ignition sources. Evacuate area, contact emergency personnel. Use fine water spray.	None

## Section 7: Handling and Storage

	Handling	Storage
<b>Propylene</b>	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.110. Protect from physical damage. Store in a cool, dry place. Store in a well-ventilated area. Store outside or in a detached building. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances. Avoid heat, flames, sparks and other sources of ignition.
<b>Ethylene</b>	Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store in a cool, dry place. Store in a well-ventilated area. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.	Avoid heat, flames, sparks and other sources of ignition. Grounding and bonding required.

## Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
<b>Propylene</b>	PROPYLENE: 500 ppm ACGIH TWA

	Exposure Guidelines
Ethylene	TLV-TWA: 200ppm Carcinogenicity Designation A4 (ACGIH)

### Engineering Controls

Handle only in fully enclosed systems or with adequate ventilation.

	Eye Protection	Skin Protection	Respiratory Protection
Propylene	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.	For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.	Any self-contained breathing apparatus with a full facepiece.
Ethylene	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.	For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.	Any self-contained breathing apparatus with a full facepiece.

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Propylene	Gas	Clear	Colorless	N/A	Gas	Faint gasoline-like odour	N/A
Ethylene	Gas	Colorless	Colorless	N/A	Compressed gas	Sweet odor	Sweet taste

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Propylene	-162 F (-108 C)	Not available	223.87 (log = 2.35) (estimated from water solubility)	851 F (455 C)	0.111	0.02
Ethylene	Approximately -212.8 F (-136 C) (CC); extremely flammable gas	Not available	281.84 (log = 2.45) (estimated from water solubility)	842 F (450 C)	0.36	0.027

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
Propylene	-53 F (-47 C)	-301 F (-185 C)	7828 mmHg @ 21.1 C	1.5 (Air=1)	Not applicable	0.45	Not applicable	Not available	Not applicable	0.140 cP @ -40 C

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
Ethylene	-155 F (-104 C)	-272 F (-169 C)	760 mmHg @ -104 C	0.978 @ 0 C; 0.969 @ 21.1 C (air = 1)	Not applicable	0.226	Not applicable	Wide range of reported values: 17 to 959 ppm. Acceptable values are: 270 ppm (310 mg/m3) (detection); 418 ppm (480 mg/m3) (recognition)	Not applicable	LIQUEFIED GAS: 0.16 mPa.s (0.16 centipoise) @ -100 C (18); 0.07 mPa.s (0.07 centipoise) @ 0 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Propylene	42.08	C-H3-C-H-C-H2	1.7855 g/L	Not available	100%	Not applicable	Soluble: Alcohol, ether, acetic acid
Ethylene	28.05	C-H2-C-H2	1.261 g/L @ 0 C	Not available	100%	1	Soluble: Alcohol, ether, acetone, benzene

## Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Propylene	May polymerize. May react on contact with air, heat, light or water.	May polymerize. May react on contact with air, heat, light or water.	Oxidizing materials, halo carbons, halogens, acids, water, nitrogen oxides
Ethylene	May polymerize. Avoid storage and use above room temperature.	May polymerize. Avoid storage and use above room temperature.	Acids, metal salts, halogens, halo carbons, oxidizing materials, metals, peroxides, chlorine, aluminum chloride, nitrogen dioxide or ozone, copper, 5A molecular sieves

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Propylene	Miscellaneous decomposition products	May polymerize. Avoid contact with heat, light, air, water or incompatible materials. Polymerizes with evolution of heat.
Ethylene	Carbon monoxide, carbon dioxide, hydrocarbons	Polymerizes with evolution of heat. Store in a cool, dry place.

## Section 11: Toxicology Information

### Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Propylene	Not available	Not available	Tearing, nausea, vomiting, symptoms of drunkenness, suffocation, convulsions, coma
Ethylene	LC50 (inhalation, mouse) = 96 pph	Not available	Nausea, vomiting, symptoms of drunkenness, bluish skin color, suffocation, convulsions, coma

	Eye Irritation	Skin Irritation	Sensitization
Propylene	Liquid: frostbite, blurred vision	Liquid: blisters, frostbite	No health hazards classified.
Ethylene	Frostbite, blurred vision	Blisters, frostbite	Specific Target Organ Toxicity (single exposure), Category 3; H336: May cause drowsiness or dizziness.

## Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Propylene	IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3; ACGIH: A4 -Not Classifiable as a Human Carcinogen	Available.	Available.	No data
Ethylene	IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3; ACGIH: A4 -Not Classifiable as a Human Carcinogen	Not available	Not available	No data

## Section 12: Ecological Information

### Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Propylene	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Moderately volatile from water.	0.40 (estimated from water solubility)	Leaches through the soil or the sediment at a slow rate.
Ethylene	Fish toxicity: 22000-25000 ug/L 1 day(s) LC100 (Mortality) Orangespotted sunfish ( <i>Lepomis humilis</i> ) Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Lemon = 0.025-0.05; epinasty Other toxicity: Tomato = 0.04-0.1 ppm/3-48 hours; leaf epinasty.	Relatively non-persistent in the environment. Moderately volatile from water.	Accumulates very little in the bodies of living organisms.	Leaches through the soil or the sediment at a slow rate.

## Section 13: Disposal Considerations

Propylene	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Ethylene	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

#### DOT Information For This Mixture

Shipping Name	Hydrocarbon Gas Mixture, Compressed, N.O.S.
UN Number	UN1964
Hazard Class	2.1
Hazard Information	FLAMMABLE GAS

### Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Propylene	Propylene	UN1077	2.1	Not applicable	2.1	Forbidden	150 kg	N/A
Ethylene	Ethylene	UN1962	2.1	Not applicable	2.1	Forbidden	150 kg	N/A

### Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Propylene	Propylene	UN1077	2.1	Not applicable
Ethylene	Ethylene, compressed	UN1962	2.1	Not applicable

## Section 15: Regulatory Information

### U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Propylene	Not regulated.	Not regulated.	Not regulated.
Ethylene	Not regulated.	Not regulated.	Not regulated.

### SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Propylene	Yes	No	Yes	No	Yes
Ethylene	Yes	No	Yes	Yes	Yes

### SARA 372.65

Propylene	PROPYLENE
Ethylene	ETHYLENE

### OSHA Process Safety

Propylene	Not regulated.
Ethylene	Not regulated.

### State Regulations

	CA Proposition 65
Propylene	Not regulated.
Ethylene	Not regulated.

### Canadian Regulations

	WHMIS Classification
Propylene	A, B1.
Ethylene	A, B1, D2B

### National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Propylene	Listed on inventory.	Not listed.	Listed on inventory.
Ethylene	Listed on inventory.	Not listed.	Listed on inventory.

## Section 16: Other Information

	NFPA Rating
Propylene	HEALTH=2 FIRE=4 REACTIVITY=1
Ethylene	HEALTH=3 FIRE=4 REACTIVITY=2

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

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