



# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**Product ID:** Propane Odorized  
**Product Name:** Propane Odorized  
**Revision Date:** Oct 20, 2015  
**Version:** 1.0  
**Company Name:** Martin Operating Partnership,L.P.  
**Address:** P.O. Box 191, Kilgore, TX, US, 75663  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 800-256-5122  
**Fax:**  
**Product/Recommended Uses:** Fuel

**Date Printed:** Nov 24, 2015  
**Supersedes Date:** N.A.

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification:

Gases Under Pressure Liquefied Gas  
Flammables gases Category 1

### Pictograms:



### Signal Word:

Danger

### Hazardous Statements - Physical:

Extremely flammable gas  
Contains gas under pressure; may explode if heated

### Precautionary Statements - General:

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

### Precautionary Statements - Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### Precautionary Statements - Response:

Leaking gas fire - do not extinguish unless leak can be stopped safely.  
Eliminate all ignition sources if safe to do so.  
In case of leakage, eliminate all ignition sources.

### Precautionary Statements - Storage:

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

**Precautionary Statements - Disposal:**

No precautionary statement available.

**Hazard not otherwise classified (HNOC):**

Simple Asphyxiant  
May displace oxygen and cause rapid suffocation

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**SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS**

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CAS	Chemical Name	% By Weight
0000074-98-6	PROPANE	90% - 100%
0000115-07-1	PROPYLENE	2.00% - 5%
0000106-97-8	BUTANE	0.10% - 2.50%
0000075-08-1	ETHYL MERCAPTAN	0 - 0.0024 %

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**SECTION 4) FIRST-AID MEASURES**

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**Inhalation:**

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment, use the buddy system).

**Skin Contact:**

If contact with liquid occurs: Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

If freeze burns have occurred, DO NOT rub area or apply direct heat. Remove source of exposure. For brief contact with a small amount: Rewarm with body heat. Get immediate medical advice/attention. For extensive contact or a large amount: Immediately call a POISON CENTER/doctor and follow their advice. Specific treatment is urgent.

**Eye Contact:**

If contact with liquid occurs: If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

**Ingestion:**

Not applicable (gas). If exposure does occur: Get medical advice/attention.

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**SECTION 5) FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media:**

Dry chemical, alcohol foam or carbon dioxide is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Water may be ineffective except as a blanket.

**Unsuitable Extinguishing Media:**

Do not use water in a jet.

Water spray can be used to cool containers exposed to heat or flame.

**Specific Hazards in Case of Fire:**

FLAMMABLE GAS. Carbon oxides formed when material is burned. Highly flammable vapor heavier than air may accumulate in low areas. Gas or vapour may travel a considerable distance to a source of ignition and flash back to a leak or open container.

Can displace oxygen in the air, causing suffocation.

**Fire-fighting Procedures:**

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Stay away from ends of tanks.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Control fire until gas flow can be safely stopped. Water fog or spray may be used to cool exposed containers and equipment.

**Specific hazards arising from chemical:**

Heat from fire can cause a rapid build-up of pressure inside cylinders. Explosive rupture and a sudden release of large amounts of gas may result. Cylinder may rocket.

**Special Protective Actions:**

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## SECTION 6) ACCIDENTAL RELEASE MEASURES

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**Emergency Procedure:**

Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Allow gas to dissipate into atmosphere. Ventilate area thoroughly. Monitor area for flammable or explosive atmosphere. Use explosion-proof equipment.

**Recommended equipment:**

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**

Avoid breathing vapours, mist or gas.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch damaged containers or spilled materials unless wearing appropriate clothing.

Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental Precautions:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains/surface waters/ groundwater or confined areas.

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## SECTION 7) HANDLING AND STORAGE

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**Precautions for Safe Handling:**

WARNING: The intensity of ethyl mercaptan odor may fade because of chemical oxidation, adsorption, or absorption. Because of human odor perception variability, some people may not be able to detect the odor at all. Other odors may mask or hide the ethyl mercaptan odor. While ethyl mercaptan may not impart the warning of the presence of propane in every instance, it is generally effective in a majority of situations. Familiarize yourself and your customers with this warning and other facts concerning odor-fade phenomenon. If you do not know all the facts, write to Martin Gas Sales, Inc. and ask for more information about odor and the other safety considerations associated with the handling, storage, and use of propane.

**General:**

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.

Cylinder temperature should never exceed 51°C (125°F). Do not lift cylinders by their caps and do not handle them with oily hands. Do not drop cylinders or permit them to strike each other. Bond and ground containers during transfer and storage. Store empty cylinders separately from full ones. Note : Store in containers that have been properly purged and pacified. (Oxidation of ethyl mercaptan odorant may occur in presence of rust, air, or water.)

Do not cut, drill, grind, weld or perform similar operations on or near containers.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

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## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Eye protection:**

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

**Skin protection:**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Insulated gloves suitable for low temperatures should be used when handling liquid.

Any clothing that becomes wet with liquid should be removed immediately and not worn again until liquid has evaporated.

**Respiratory protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

When entering areas containing unknown concentrations, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA).

**Appropriate Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Have a safety shower and eyewash fountain readily available in work area for emergency use when handling liquid.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
BUTANE								800	1900			
ETHYL MERCAPTAN	10 ceiling	25 Ceiling			1							
PROPANE	1000	1800			1			1000	1800			
PROPYLENE												

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis
BUTANE	1000						CNS impair
ETHYL MERCAPTAN	0.5	1.3					UIRT irr; CNS impair
PROPANE	See Appendix F: Minimal Oxygen Content						Card sens; CNS impair
PROPYLENE	500				A4	A4	Asphyxia; URT irr

A4 - Not Classifiable as a Human Carcinogen, card - cardiac, CNS - Central nervous system, impair - Impairment, irr - Irritation, sens - sensitization, URT - Upper respiratory tract

**SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

Density	4.256 lb/gal
Density VOC	4.256 lb/gal
% VOC	100.000%
VOC Actual	4.256 lb/gal
VOC Actual	510.019 g/l
Specific Gravity	0.510
VOC Regulatory	4.256 lb/gal
VOC Regulatory	510.019 g/l
Appearance	Colorless gas
Odor Threshold	1000 ppm when pure, much lower when odorant is added

Odor Description	Faint
pH	N.A.
Water Solubility	Slightly soluble (6.5 ml of gas in 100 ml water at 0°C)
Flammability	Flashpoint below 73 °F
Flash Point Symbol	N.A.
Flash Point	-156 °F (Estimate)
Viscosity	N.A.
Lower Explosion Level (% by Volume in Air)	2.1
Upper Explosion Level (% by Volume in Air)	9.5
Vapor Pressure (@ 21 °C)	108 - 124 psia
Vapor Density (Air = 1)	1.5
Freezing Point	N.A.
Melting Point	-306 °F
Low Boiling Point (@ 1 atm)	-44 °F
High Boiling Point	N.A.
Auto Ignition Temp	450 °F
Decomposition Pt	N.A.
Evaporation Rate	>1
Coefficient Water/Oil	N.A.

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability:

Stable

### Conditions to Avoid:

Avoid heat, sparks, flame, build up of static electricity, contact with incompatible materials.

### Hazardous Polymerization:

Will not occur.

### Incompatible Materials:

Oxygen, Strong oxidizing agents (such as acids, peroxides, and perchlorates)

### Hazardous Decomposition Products:

Carbon Monoxide and Carbon Dioxide.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Skin Corrosion/Irritation:

Contact with liquid may cause frostbite.

### Serious Eye Damage/Irritation:

Slight irritation is possible. Contact with liquid can cause freeze burns.

### Respiratory/Skin Sensitization:

No Data Available

### Germ Cell Mutagenicity:

No Data Available

### Carcinogenicity:

No Data Available

### Reproductive Toxicity:

No Data Available

### Specific Target Organ Toxicity - Single Exposure:

No Data Available

### Specific Target Organ Toxicity - Repeated Exposure:

No Data Available

**Aspiration Hazard:**

No Data Available

**Acute Toxicity:**

In humans, narcotic effects (drowsiness, coma, etc.) are seen at high doses.

0000115-07-1 PROPYLENE

LC50 (male rat): greater than 50000 ppm (86000 mg/m<sup>3</sup>) (4-hour exposure) (8)

0000075-08-1 ETHYL MERCAPTAN

LC50 (rat): 4420 ppm; 4-hour exposure (6)

LC50 (mouse): 2770 ppm; 4-hour exposure (6)

LD50 (oral, rat): 682 mg/kg (6); 1034 mg/kg (6)

LD50 (oral, mouse): 1500 mg/kg (3)

LD50 (dermal, rat): Greater than 2,000 mg/kg (1)

0000106-97-8 BUTANE

LC50 (mouse): 202000 ppm (481000 mg/m<sup>3</sup>) (4-hour exposure); cited as 680 mg/L (2-hour exposure) (9)

LC50 (rat): 276000 ppm (658000 mg/m<sup>3</sup>) (4-hour exposure); cited as 658 mg/L (4- hour exposure) (9)

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity:**

No Data Available

**Persistence and Degradability:**

No Data Available.

**Bio-accumulative Potential:**

No Data Available.

**Mobility in Soil:**

No Data Available.

**Other Adverse Effects:**

No Data Available.

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal:**

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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**SECTION 14) TRANSPORT INFORMATION**

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**U.S. DOT Information:**

Proper shipping name: Liquefied Petroleum Gas

Shipping Description: UN 1075, Liquefied Petroleum Gas, 2.1

Packaging References:

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**SECTION 15) REGULATORY INFORMATION**

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CAS	Chemical Name	% By Weight	Regulation List
0000074-98-6	PROPANE	90% - 100%	DSL,SARA312,TSCA,TX_ESL
0000115-07-1	PROPYLENE	2.00% - 5%	DSL,SARA312,SARA313,IARCCarcinogen,TSCA,TX_ESL
0000106-97-8	BUTANE	0.10% - 2.50%	DSL,SARA312,TSCA,TX_ESL
0000075-08-1	ETHYL MERCAPTAN	0 - 0.0024 %	DSL,SARA312,TSCA,TX_ESL

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**SECTION 16) OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS**

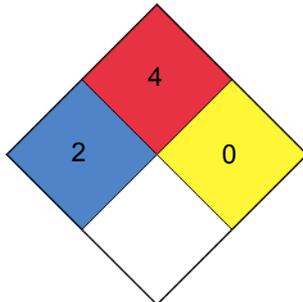
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**Glossary:**

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ - Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA - Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

**Other Information:**

Product contains no less than 1 lb of ethyl mercaptan per 10,000 gal. of propane as an olfactory indicator.



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**DISCLAIMER**

Information provided in this Safety Data Sheet is considered accurate and reliable based on information issued from internal and outside sources to the best of Martin Operating Partnership L.P.'s knowledge; however, Martin Operating Partnership L.P. makes no representations, guarantees or warranties, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such information or the result to be obtained from the use thereof or as to the sufficiency of information herein presented. Martin Operating Partnership L.P. assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.

This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Martin Gas Sales, a division of Martin Operating Partnership L.P., must rely upon information provided by the material manufacturers or distributors.