161927 Part# 842605
TANK,PROPANE,20-LB, ACME VALVE
1624 DO IT BEST 10
Buyer: Bernard W. Aubuchon Jr.

Material Safety Data Sheet

PROPANE (PURE GRADE)

24-Hour Emergency Telephone Numbers
HEALTH :ChevronTexaco Emergency Information Center (800) 231-0623 or (510) 231-0623
TRANSPORTATION : USA: CHEMTREC (800) 424-9300 or (703) 527-3887
ASIA: (800) ALERTSGS or (800) 25378747 or +65+542+9595
EUROPE: +32+14+584545 (phone) or +32+14+583516 (telefax)
SOUTH AMERICA SOS-Cotec Inside Brazil: 0800+111+767
Outside Brazil: 55+19+3467+1600

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PROPANE (PURE GRADE)

Product Number(s): 0001021811, 0001021812, 0001021813, 0001021814, 0001029658
Synonyms: DIMETHYLMETHANE; LIQUEFIED PETROLEUM GAS

Company Identification:
Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Product Information:
MSDS Requests: (800) 852-5530
Technical Information: (800) 852-5531

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	AMOUNT
PROPANE	74-98-6	99.40 % weight
ISOBUTANE	75-28-5	0.40 % weight

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
PROPANE	ACGIH_TLV	2500 ppm	NA	NA	NA
PROPANE	OSHA_PEL	1800 mg/m3	NA	NA	NA
ISOBUTANE	ACGIH_TLV	Not Established	NA	NA	NA

This material is classified as a simple asphyxiant. When working with this material, the minimal oxygen content should be 19.5 percent by volume under normal atmospheric pressure.

SECTION 3 HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW

Colorless liquefied gas, odorless (Repulsive if odorant has been added).

- FLAMMABLE GAS. MAY CAUSE FLASH FIRE
- CONTENTS UNDER PRESSURE
- NO ODORANT ADDED; DETECTION OF LEAK VIA SENSE OF SMELL MAY NOT BE POSSIBLE
- CONTACT WITH LIQUEFIED GAS CAN CAUSE FROSTBITE
- HEAVIER THAN AIR - MAY ACCUMULATE IN LOW LYING AREAS
- REDUCES OXYGEN AVAILABLE FOR BREATHING

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IMMEDIATE HEALTH EFFECTS:

Eye: Because the liquid product evaporates quickly, it can have a severe chilling effect on eyes and can cause local freezing of tissues (frostbite). Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin: Because the liquid product evaporates quickly, it can have a severe chilling effect on skin and can cause local freezing of tissues (frostbite). Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Material is a gas and cannot usually be swallowed.

Inhalation: This material can act as a simple asphyxiant by displacement of air. Symptoms of asphyxiation may include rapid breathing, in coordination, rapid fatigue, excessive salivation, disorientation, headache, nausea, and vomiting. Convulsions, loss of consciousness, coma, and/or death may occur if exposure to high concentrations continues.

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

Skin: To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. Skin contact with the liquid may result in frostbite and burns. Soak contact area in tepid water to alleviate the immediate effects and get medical attention.

Ingestion: No specific first aid measures are required because this material is a gas and cannot usually be swallowed.

Inhalation: For emergencies, wear a NIOSH approved air-supplying respirator. Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

SECTION 5 FIRE FIGHTING MEASURES

See Section 7 for proper handling and storage.

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Flammable gas.

NFPA RATINGS: Health: 1 Flammability: 4 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: -104°C (-155.2°F) Estimated

Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: 2.1 Upper: 9.5

EXTINGUISHING MEDIA: Allow gas to burn if flow cannot be shut off safely. Apply water from a safe distance to cool container, surrounding equipment and structures. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure. Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: DO NOT EXTINGUISH. STOP FLOW OF FUEL AND ALLOW FIRE TO BURN OUT. If flames are accidentally extinguished, explosive reignition may occur. Eliminate ignition sources. Keep people away. Isolate fire area and deny unnecessary entry. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. For unignited vapor cloud, use water spray to knock down and control dispersion of vapors. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out and danger of reignition has passed. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of released gas. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator. For large releases, warn public of downwind explosion hazard.
Spill Management: Stop the source of the release if you can do it without risk. Observe precautions in Exposure Controls/Personal Protection section. All equipment used when handling the product must be grounded. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Do not direct water at spill or source of leak. Prevent spreading of vapors through sewers, ventilation systems and confined areas. Isolate area until gas has dispersed.
Reporting: U.S.A. regulations require reporting spills of this material that could reach any surface waters. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL . REFER TO PRODUCT LABEL OR MANUFACTURERS TECHNICAL BULLETINS FOR THE PROPER USE AND HANDLING OF THIS MATERIAL .

Precautionary Measures: This material presents a fire hazard. Gas can catch fire and burn with explosive force. Invisible gas spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Petroleum gases are heavier than air and may travel along the ground or into drains to possible distant ignition sources that may cause an explosive flashback.
Unusual Handling Hazards: Auto-refrigeration: Drains can become plugged and valves may become inoperable because of the formation of ice due to expanding vapors or vaporizing liquids. Drains and valves may be thawed by applying an environmentally acceptable low freezing liquid to the outside surfaces. Liquid should be recovered for reuse or proper disposal.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77), 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003,

'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
General Storage Information: DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use. When working with this material, the minimal oxygen content should be 19.5% by volume under normal atmospheric pressure.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:
Eye/Face Protection: Wear eye protection such as safety glasses, chemical goggles, or faceshields if engineering controls or work practices are not adequate to prevent eye contact.
Skin Protection: Wear protective clothing if engineering controls or work practices are not adequate to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile Rubber
Respiratory Protection: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain a minimal oxygen content of 19.5% by volume under normal atmospheric pressure. If exposure is anticipated to be greater than applicable exposure limits, wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material, such as: Supplied-Air Respirator, or Air-Purifying Respirator for Organic Vapors
Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
PROPANE	ACGIH_TLV	2500 ppm	NA	NA	NA
PROPANE	OSHA_PEL	1800 mg/m3	NA	NA	NA
ISOBUTANE	ACGIH_TLV	Not Established	NA	NA	NA

This material is classified as a simple asphyxiant. When working with this material, the minimal oxygen content should be 19.5 percent by volume under normal atmospheric pressure.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Colorless liquefied gas, odorless (Repulsive if odorant has been added).
pH: NA
VAPOR PRESSURE: 123 psia @ 21 °C
VAPOR DENSITY (AIR=1): 1.5
BOILING POINT: -42°C (-43.6°F)

SOLUBILITY: Negligible
PERCENT VOLITILE: 100 % volume
SPECIFIC GRAVITY: 0.508 @ 16 ºC
EVAPORATION RATE: >1

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid: No Data Available
Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: Carbon Oxides formed when burned.
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS:

Acute Oral Toxicity: The oral LD50 is is not known. The acute oral toxicity is based on test results for PROPANE.
Acute Dermal Toxicity: The dermal LD50 is not known.
The acute dermal toxicity is based on test results for PROPANE.
Acute Inhalation Toxicity: The inhalation LC50 in the rat is >800,000 ppm after 15 minute(s) exposure. The acute inhalation toxicity is based on test results for PROPANE.

Eye Irritation: Contact with liquefied gas can cause severe damage (frostbite) due to rapid evaporative cooling. This material is not expected to be irritating to the eyes. The eye irritation hazard is based on test results for PROPANE.
Skin Irritation: Contact with liquefied gas can cause severe damage (frostbite) due to rapid evaporative cooling. This material is not expected to be irritating to the skin.
The dermal irritation hazard is based on test results for PROPANE.

ADDITIONAL TOXICOLOGY INFORMATION:
Genotoxicity: Propane was not mutagenic in the AMES assay.

This product contains ISOBUTANE.
Isobutane has been shown to increase airway resistance by bronchioconstriction and decrease pulmonary compliance and tidal volume (difficulty in breathing). Air containing 27% isobutane was found to decrease respiratory rate and proved to be fatal to rats. Inhalation exposure to a concentration of 350,000 ppm (35%) isobutane caused death in 60% of exposed mice and concentrations of 52,000 ppm (52%) were lethal to 100% of exposed mice in a 28 minute period. Isobutane's anesthetic activity was tested in dogs and produced anesthetic effects after a 10 minute exposure with 45% (450,000 ppm) isobutane and lethality with 55% (550,000 ppm) isobutane. No significant system abnormalities occurred in human subjects during acute inhalation studies of isobutene at exposures of 1000 ppm for 8 hours/day, and at 500 ppm for 8 hours/day, 5 days/week for 2 weeks. Isobutane was not mutagenic in the Ames assay with or without activation.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY:

This material is not expected to be harmful to aquatic organisms.
The 96 hour(s) LC50 for fish (Unidentified species) is >1,000 mg/l. This information is based on test data from the component:PROPANE.

ENVIRONMENTAL FATE:
This material is expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: PROPANE
DOT Hazard Class: 2.1 (Flammable Gas)
DOT Identification Number: UN1978
DOT Packing Group: NOT APPLICABLE

DOT Additional Information: For domestic shipments of this material, the alternate shipping description "Liquefied petroleum gas, 2.1, UN1075" is authorized. When using this alternate description for cargo tanks, the wording "NONCORROSIVE", "NONCOR", or "NOT FOR Q and T TANKS" must follow the basic description as appropriate.

SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:

1.	Immediate (Acute) Health Effects:	YES
2.	Delayed (Chronic) Health Effects:	YES
3.	Fire Hazard:	YES
4.	Sudden Release of Pressure Hazard:	NO
5.	Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

04A = IARC Group 1	12 = TSCA Section 8(a) PAIR	21 = TSCA Section 5(a)
04B = IARC Group 2A	13 = TSCA Section 8(d)	25 = CAA Section 112 HAPs
04C = IARC Group 2B	15 = SARA Section 313	26 = CWA Section 311
05 = NTP Carcinogen	16 = CA Proposition 65	28 = CWA Section 307
06 = OSHA Carcinogen	17 = MA RTK	30 = RCRA Waste P-List
09 = TSCA 12(b)	18 = NJ RTK	31 = RCRA Waste U-List
10 = TSCA Section 4	19 = DOT Marine Pollutant	32 = RCRA Appendix VIII
11 = TSCA Section 8(a) CAIR	20 = PA RTK	33 = MN Hazardous Substance

The following components of this material are found on the regulatory lists indicated.

ISOBUTANE	18, 25
PROPANE	17, 18, 20, 25, 33

CERCLA REPORTABLE QUANTITIES(RQ)/SARA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

Component	Component RQ	Component TPQ	Product RQ
ISOBUTANE	100 lbs	None	16666.666667 lbs

WHMIS CLASSIFICATION:
Class A: Compressed Gas
Class B, Division 1: Flammable Gases

CHEMICAL INVENTORY LISTINGS:
AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).
CANADA: All the components of this material are on the Canadian Domestic Substances List (DSL).
PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.
EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.
JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.
KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.
PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).
UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 4 Reactivity: 0
HMIS RATINGS: Health: 1 Flammability: 4 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: This is an original Chevron Phillips Chemical Company LP MSDS. It has been created out of a new authoring system under direction of Chevron Phillips Chemical Company LP Product Stewardship Group.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	- Threshold Limit Value	TWA	- Time Weighted Average
STEL	- Short-term Exposure Limit	PEL	- Permissible Exposure Limit
ACGIH	- American Conference of Government Industrial Hygienists	OSHA	- Occupational Safety & Health
NIOSH	- National Institute of Safety & Health	NFPA	- National Fire Protection Agency
WHMIS	- Workplace Hazardous Materials Information System	IRAC	- Intl. Agency for Research on Cancer

EINECS	-	European Inventory of existing Commercial Chemical Sales	RCRA	-	Resource Conservation Recovery Act
SARA	-	Superfund Amendments and Reauthorization Act.	TSCA	-	Toxic Substance Control Act
EC50	-	Effective Dose	LC50	-	Lethal Concentration
LD50	-	Lethal Dose	CAS	-	Chemical Abstract Service Number
NDA	-	No Data Available	NA	-	Not Applicable
<=	-	Less Than or Equal To	>=	-	Greater Than or Equal To
CNS	-	Central Nervous System			

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by EHS Product Stewardship Group, Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, TX 77380

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.