Propane

Safety Data Sheet

According to Federal Register / Vol. 89, No. 98 / Monday, May 20, 2024 / Rules and Regulations
Date of Issue: 07/23/2025 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substance

Product Name: Propane

CAS-No.: 74-98-6

Synonyms: Petroleum Hydrocarbon

1.2 Recommended Use and Restrictions on Use

Use Of The Substance/Mixture : Fuel

Restrictions On Use : No additional information available

1.3. Name, Address, and Telephone of the Responsible Party

Company

Delek US
200 Refinery Road
Big Spring, TX 79720
Phone #: 432-263-7661

Delek US
365 S. Levee Road
Krotz Springs, LA 70750
Phone #: 337-566-0175

Delek US
425 N. McMurrey Drive
Tyler, TX 75702
Phone #: 903-579-3400

Delek US
1000 Mc Henry St.
El Dorado, AR 71730
Phone #: 615-771-6701

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

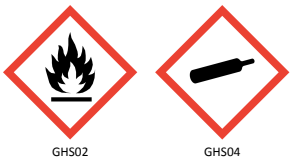
GHS-US Classification

Flammable gas, Category 1A	H220
Gas under pressure : Liquefied gas	H280
Simple asphyxiant, Category 1	SIAS

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



GHS02 GHS04

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary Statements (GHS-US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.
P403 - Store in a well-ventilated place.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3 Hazards associated with known or reasonably anticipated uses

If this product is used in unforeseeable chemical processes and not used as intended or reasonable, the hazards listed in Section 2.3 cannot cover all chemistries. Therefore, a Process Hazard Analysis (PHA) or other hazard assessment for additional specific end

uses should be performed to ensure that hazards are fully understood, and adequate safety measures are in place. See Section 10 for relevant reactivity and stability information

2.4. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with gas escaping the container can cause frostbite.

2.5. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name : Propane
CAS-No. : 74-98-6

Name	Synonyms	Product Identifier	%	GHS US classification
Propane	Normal propane / PROPANE / n-Propane / R290 / R-290	(CAS-No.) 74-98-6	95 – 100	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Simple Asphy. 1, SIAS
Propene	Propylene / 1-Propene / n-Propene / 1-Propylene / Prop-1-ene / R-1270	(CAS-No.) 115-07-1	≤ 5	Simple Asphy., SIAS Flam. Gas 1, H220 Press. Gas (Liq.), H280 STOT SE 3, H336 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
n-Butane	Butane / BUTANE	(CAS-No.) 106-97-8	≤ 2	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Simple Asphy. 1, SIAS

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. When symptoms occur: go into open air and ventilate suspected area. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: 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, incorrect first-aid practices will aggravate the injury. Protect affected area with a loose cover until proper medical treatment is received.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-aid Measures After Ingestion: Ingestion is an unlikely route of exposure for a gas. Though risk of ingestion is extremely unlikely, in case of frostbite or freeze burns due to oral exposure seek immediate medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: May cause frostbite on contact with the liquid. Asphyxia by lack of oxygen: risk of death.

Symptoms/Injuries After Inhalation: In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation. Contact with gas/liquid escaping the container can cause frostbite and freeze burns.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes. Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and permanent eye damage.

Symptoms/Injuries After Ingestion: Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Do not extinguish burning gas if flow cannot be shut off immediately. Extinguish secondary FIRES with appropriate materials. Water spray, fog, carbon dioxide (CO_2), alcohol-resistant foam, dry chemical, or sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable gas.

Explosion Hazard: May form flammable/explosive vapor-air mixture. Container may explode in heat of fire.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Eliminate every possible source of ignition. Do not get in eyes, on skin, or on clothing. Do not breathe gas.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: No open flames, no sparks, and no smoking. Evacuate unnecessary personnel. Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Ventilate area. Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. As an immediate precautionary measure, isolate spill or leak area in all directions. Stop leak, if possible without risk.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Do not pressurize, cut, or weld containers. Ruptured cylinders may rocket. Asphyxiating gas at high concentrations.

Precautions for Safe Handling: Do not breathe gas. Avoid prolonged contact with eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.

Storage Conditions: Keep in fireproof place. Keep/Store away from Ignition sources, direct sunlight, extremely high or low temperatures and incompatible materials. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Keep container closed when not in use. Store in a dry, cool place.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Fuel

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

n-Butane (106-97-8)		
USA ACGIH	ACGIH® TLV® STEL	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL TWA	1900 mg/m³
USA NIOSH	NIOSH REL TWA	800 ppm
USA IDLH	IDLH	1600 ppm (>10% LEL)

Propene (115-07-1)		
USA ACGIH	ACGIH® TLV® TWA	500 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen

Propane (74-98-6)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
USA NIOSH	NIOSH REL TWA	1800 mg/m³
USA NIOSH	NIOSH REL TWA	1000 ppm
USA IDLH	IDLH	2100 ppm (10% LEL)
USA OSHA	OSHA PEL TWA	1800 mg/m³
USA OSHA	OSHA PEL TWA	1000 ppm

8.2. Exposure Controls

Appropriate Engineering Controls : Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when flammable gases or vapors may be released. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Oxygen detectors should be used when asphixiating gases may be released.

Personal Protective Equipment : Protective goggles or glasses. Face shield. Insufficient ventilation: wear respiratory protection. Gloves. Protective clothing. Protective goggles. Respiratory protection of the dependent type.



Materials for Protective Clothing : Wear fire/flame resistant/retardant clothing. Chemically resistant materials and fabrics.

Hand Protection : Wear protective gloves. If material is cold, wear thermally resistant protective gloves.

Eye and Face Protection : Chemical safety goggles or safety glasses with side shields. Faceshield as determined by task.

Skin and Body Protection : Wear suitable protective clothing.

Respiratory Protection : Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Thermal Hazard Protection : Wear thermally resistant protective clothing.

Other Information : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Gas

Color : Clear

Odor : Natural gas

pH : No data available

Melting Point : No data available

Freezing Point	:	No data available
Boiling Point	:	-42 °C (-43.6 °F)
Flash Point	:	-104.4 °C (-155.92 °F) [TCC]
Auto-ignition Temperature	:	232.2 °C (449.96 °F)
Decomposition Temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor Pressure	:	14 bar (@ 38 °C / 100.4 °F)> 1 (Butyl Acetate = 1)
Relative Vapor Density at 20°C	:	No data available
Relative Density	:	No data available
Specific Gravity	:	0.506 –0.509 (H_2O=1, at 4 °C / 39.2 °F)
Solubility	:	Negligible.
Partition Coefficient: N-Octanol/Water	:	No data available
Viscosity, Kinematic	:	No data available
Particle Aspect Ratio	:	Not applicable
Particle Aggregation State	:	Not applicable
Particle Agglomeration State	:	Not applicable
Particle Specific Surface Area	:	Not applicable
Particle Dustiness	:	Not applicable
Explosive Properties	:	Contains gas under pressure; may explode if heated.
Lower Flammable Limit	:	2.1 %
Upper Flammable Limit	:	9.5 %

9.2. Other Information

VOC Content	:	100 %
Gas Group	:	Press. Gas (Liq.)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Contains gas under pressure; may explode if heated.

10.3. Possibility of Hazardous Reactions, Including those Associated with Foreseeable Emergencies

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Likely Routes of Exposure: Dermal, Ingestion, Inhalation, Eye contact

Acute Toxicity (Oral): Not classified.

Acute Toxicity (Dermal): Not classified.

Acute Toxicity (Inhalation): Asphyxiating gas at high concentrations

n-Butane (106-97-8)	
LC50 Inhalation Rat	30957 mg/m³ (Exposure time: 4 h)
LC50 Inhalation Rat	276798.8 ppm

Propene (115-07-1)	
LC50 Inhalation Rat	> 65000 ppm/4h

Propane (74-98-6)	
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min Source: ECHA_API)

Skin Corrosion/Irritation: Not classified.

Serious Eye Damage/Irritation: Not classified.

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.
Carcinogenicity: Not classified.

Propene (115-07-1)	
IARC group	3

Reproductive Toxicity: Not classified.
Specific Target Organ Toxicity (Single Exposure): Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Aspiration Hazard: Not applicable
Symptoms/Injuries After Inhalation: In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation. Contact with gas/liquid escaping the container can cause frostbite and freeze burns.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes. Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and permanent eye damage.
Symptoms/Injuries After Ingestion: Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.
Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

Propene (115-07-1)	
ErC50 (Algae)	33.39 mg/l

12.2. Persistence and Degradability

Propane (74-98-6)	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Propane (74-98-6)	
Bioaccumulative Potential	Not established.

n-Butane (106-97-8)	
Partition coefficient n-octanol/water (Log Pow)	2.31 (at 20 °C / 68 °F) (at pH 7)

Propene (115-07-1)	
Partition coefficient n-octanol/water (Log Pow)	1.77 (at 20 °C / 68 °F) (at pH 7)

Propane (74-98-6)	
Partition coefficient n-octanol/water (Log Pow)	1.09 (at 20 °C / 68 °F) (at pH 7)

12.4. Mobility in Soil

Propane (74-98-6)	
Ecology - Soil	Leaches if exposed to water.

12.5. Other Adverse Effects

Other Adverse Effects : None known.
Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Treatment Methods: Material should be recycled if possible. Incineration is also an acceptable method for disposal.
Sewage Disposal Recommendations: Do not dispose of waste into sewer.
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable. Empty gas cylinders should be returned to the vendor for recycling or refilling. Container may remain hazardous when empty. Continue to observe all precautions. Do not puncture or incinerate container.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : LIQUEFIED PETROLEUM GAS
Hazard Class : 2.1
Identification Number : UN1075
Label Codes : 2.1



ERG Number : 115

14.2. In Accordance with IMDG

Proper Shipping Name : PETROLEUM GASES, LIQUEFIED
Hazard Class : 2
Division : 2.1
Identification Number : UN1075
Label Codes : 2.1
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U



14.3. In Accordance with IATA

Proper Shipping Name : PETROLEUM GASES, LIQUEFIED
Identification Number : UN1075
Hazard Class : 2
Label Codes : 2.1



Division : 2.1
ERG Code (IATA) : 10L

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Propane (74-98-6)	
SARA Section 311/312 Hazard Classes	Physical hazard - Gas under pressure Health hazard - Simple asphyxiant

n-Butane (106-97-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Propene (115-07-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %

Propane (74-98-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.2. US State Regulations

n-Butane (106-97-8)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List

Propene (115-07-1)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Propane (74-98-6)
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 07/23/2025

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H336	May cause drowsiness or dizziness
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects
SIAS	May displace oxygen and cause rapid suffocation

Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)
AU_WES: Australia WES
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)
EC_RAR: European Commission Renewal Assessment Report
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports
ECHA_API: European Chemicals Agency API
ECHA_RAC: ECHA Committee for Risk Assessment
EFSA: European Food Safety Authority
EPA: U.S. Environmental Protection Agency
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)
EPA_HPV: High Production Volume Chemicals (U.S. Environmental Protection Agency)
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)
EU_CLH: European Union Harmonised Classification and Labelling Proposal
EU_RAR: European Union Risk Assessment Report
FOOD_JOURN: Food Research Journal (1956)
IARC: The International Agency for Research on Cancer
IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
IUCLID: International Uniform Chemical Information Database
JAPAN_GHS: Japan GHS Basis for Classification Data
JP_J-CHECK: Japan J-Check
KR_NIER: South Korea National Institute of Environmental Research Evaluations
NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
NLM_CIP: National Library of Medicine ChemID plus database
NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
NLM_PUBMED: National Library of Medicine PubMed database
NTP: National Toxicology Program
NZ_CCID: New Zealand Chemical Classification and Information Database
OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
WHO: World Health Organization

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)