

SAFETY DATA SHEET

Revision Date Jan 01, 2026

SDS Number: 2026-006

Product Name: Propane

Version: 2nd Edition 2026_

Section 1. Identification

GHS product identifier: Propane

CAS No: 74 - 98 - 6

Molecular formula: C₃ H₈

Relative molecular weight: 44.11

Technical Specification Number: 2024 - 006

Supplier Name: PUYANG FENGDA FINE CHEMICAL CO.,LTD

Supplier Address: Room 1707, Huayang International, Southwest Corner of the
Intersection of Renqiu Road and Lidu Road, Puyang City,Henan,China,Henan

Province,China

Supplier phone number: 0393-8205508

Postcode: 457500

Supplier Fax: 0393-8205508

E-mail address: hnlbjxhg@163.com

Chemical accident emergency consultation line: 0532-83889090

Recommended and restricted use: Used as fuel and refrigerant, raw material for the
production of ethylene and propylene, and also used in organic synthesis.

Section 2. Hazards identification

EMERGENCY OVERVIEW: Highly flammable gas. Contains pressurized gas: may
explode on exposure to heat.

GHS Hazard Category: Flammable gas, category 1; Pressurized gas - Compressed gas.

Labeling elements:

Pictograms:



WARNING WORD: Danger,

Hazard Statement: Highly flammable gas. Contains pressurized gas: may explode on
exposure to heat.



Henan Lvbang Fine Chemical Co., Ltd

No.z004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

Precautionary statement:

Prevention: Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Response in Case of Accident: In case of a gas leak and fire, do not extinguish the fire unless the gas leak can be safely stopped. If there is no danger, remove all sources of ignition.

Safe Storage: Protect from sunlight. Store in a well - ventilated place.

Disposal: Return the container to the manufacturer or dispose of it in accordance with national and local regulations.

Physical And Chemical Hazards: Highly flammable and can form explosive mixtures with air.

Health Hazards: Has weak irritating and anesthetic effects.

Acute Poisoning: After inhaling propane, only dizziness to different degrees may occur. In industrial production, what is often exposed to are mixed gases such as propane, ethane or butane, which can cause symptoms such as dizziness, headache, excitement or drowsiness, nausea, vomiting, slow pulse, and in severe cases, anesthesia and loss of consciousness. Contact with liquid propane can cause frostbite.

Chronic Effects: Those who inhale propane and butane at low concentrations for a long time may show neurasthenic syndrome, hyperhidrosis, unstable pulse, enhanced pilomotor reflex, dermatographism and other autonomic nerve dysfunction phenomena, and some may have decreased sensation in the distal extremities.

Environmental hazard: May be harmful to the environment.

Section 3. Composition/information on ingredients

√ Substances

Mixtures

Hazardous components	Concentration or concentration range	CAS No.
Propane	≥99.9%	74-98-6

Section 4. First aid measures

dermal contact	In case of frostbite, rewarm with warm water (38-42°C). Do not use hot water or radiant heat and do not rub. Seek medical attention.
eye contact	No relevant information.
Inhalation	Quickly leave the scene to a place with fresh air. Keep the respiratory tract unobstructed. If breathing is difficult, provide oxygen. If breathing and heart beat stop, immediately perform

	cardiopulmonary resuscitation. Seek medical attention.
Ingestion	This will not occur upon contact.
Advice on protecting the rescuer	Use personal protective equipment as needed.
Special tips for doctors	Provide symptomatic treatment.

Section 5. Fire-fighting measures

Hazardous Characteristics	Flammable Gas. It can form an explosive mixture when mixed with air. In the presence of heat sources and open flames, there is a risk of combustion and explosion. It reacts violently when in contact with oxidizing agents. The gas is heavier than air, spreads along the ground and is likely to accumulate in low - lying areas. In case of encountering a fire source, it will reignite.
Hazardous combustion products	Carbon Monoxide
Extinguishing agent	Use atomized water, foam, carbon dioxide, and dry powder to extinguish the fire.
Fire extinguishing precautions and protective measures	Cut off the gas source. If the gas source cannot be cut off, it is not allowed to extinguish the flame at the leakage point. Fire - fighters must wear self - contained breathing apparatuses and full - body fire - proof and gas - proof suits, and extinguish the fire in the upwind direction. Move the container from the fire scene to an open area as far as possible. Spray water to keep the container in the fire scene cool until the end of fire - fighting.

Section 6. Accidental release measures

Operator Protective Measures, Equipment and Emergency Response Procedures	Eliminate all sources of ignition. Demarcate a warning area according to the affected area of the gas, and evacuate non - relevant personnel to the safe area from the cross - wind and up - wind directions. It is recommended that emergency response personnel wear positive - pressure self - contained breathing apparatuses and anti - static clothing. When liquefied gas leaks, wear
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	anti - static and cold - proof clothing. All equipment used during the operation should be grounded. Cut off the leakage source as far as possible. If possible, turn the container over to let the gas, rather than the liquid, escape. Spray atomized water to suppress the vapor or change the flow direction of the vapor cloud, and avoid water flow contacting the leakage. It is prohibited to directly impact the leakage or the leakage source with water.
Environmental protection measures	Prevent the gas from spreading through sewers, ventilation systems and confined spaces.
Color containment of spilled chemicals, removal methods and disposal materials used	Isolate the leakage area until the gas has dissipated completely.

Section 7. Handling and storage

Handling Precautions	Operate in a closed manner with overall ventilation. Operators must receive special training and strictly abide by the operating procedures. Keep away from kindling and heat sources. Smoking is strictly prohibited in the workplace. Use explosion - proof ventilation systems and equipment. Prevent gas from leaking into the workplace air. Avoid contact with oxidizing agents and halogens. During the transfer process, cylinders and containers must be grounded and bonded to prevent the generation of static electricity. Handle with care during transportation to prevent damage to cylinders and accessories. Equip with corresponding types and quantities of fire - fighting equipment and leakage emergency treatment devices.
Storage Precautions	Store in a special flammable - gas warehouse that is cool and well - ventilated. Keep away from kindling and heat sources. The warehouse temperature should not exceed 30°C. Store separately from oxidizing agents and halogens, and avoid mixed storage. Use explosion - proof lighting and ventilation facilities. Prohibit the use of mechan.

Section 8. Exposure controls/personal protection

Occupational Exposure Limits	China, no standards established. United States (ACGIH), no standards established.
Biological exposure limit value	No standards have been established.
Monitoring methods	Determination method for toxic substances in air: No standards have been established. Biological monitoring and inspection method: No standards have been

	established.
Engineering Controls	For production process, keep it closed and have comprehensive ventilation.
Individual protective equipment	Respiratory protection: Generally, no special protection is required. However, it is recommended to wear a filtering respirator (half mask) under special circumstances. Eye protection: Generally, no special protection is required. Chemical safety goggles can be worn when in high-concentration contact. Skin and body protection: Wear anti-static work clothes. Hand protection: Wear general operation protective gloves.

Section 9. Physical and chemical properties

Appearance and properties	Colorless liquefied gas. The pure product is odorless.		
pH (indicated concentration)	Not significant	Melting/freezing point (°C)	-189.7
Boiling point, initial boiling point and boiling range (°C)	-42.1	Relative vapor density (air=1)	1.6
Heat of combustion (kJ/mol)	-2217.8	Relative density (water = 1)	0.58
Critical pressure (MPa)	4.25	Saturated vapor pressure (kPa)	840 (20°C)
Flash Point (°C)	-104	Critical temperature (°C)	96.8
Decomposition temperature (°C)	No information available	n-octanol/water partition coefficient	2.36
Lower explosion limit [% (V/V)]	2.1	Explosive Limit [% (V/V)]	9.5
Flammability (solid, gas)	flammable	Self-ignition temperature (°C)	450
solubility	Slightly soluble in water, soluble in ethanol and ether.	Viscosity(mPa-s)	No information available

Section 10. Stability and reactivity

Chemical stability	The product is stable
prohibition material	Strong oxidizing agents, strong acids, metal oxides, halogens
Conditions for avoiding exposure	No information available
hazardous reaction	Contact with strong oxidizers, halogens and other prohibited compounds may result in fire and explosion.
hazardous product	No information available

Section 11. Toxicology information

acute toxicity	No information available
Skin irritation or corrosion	No information available
Eye irritation or corrosion	No information available
Breathing or skin allergies	No information available
germ cell mutagenicity	No information available
carcinogenicity	No information available
reproductive toxicity	No information available
Specific target organ system toxicity - single exposure	No information available
Specific target organ system toxicity - repeated exposure	Animals were exposed to a propane - based mixed gas at a concentration of 8.53 - 12.16 g/m ³ for 2 hours per day for a total of 6 months. Their neural activities were initially inhibited and later excited. There was a slight decrease in hemoglobin and a mild change in thermoregulation. There was a small amount of bleeding in the lungs, and mild protein denaturation in the liver and kidneys.
inhalation hazard	No information available

Section 12. Ecological information

Ecotoxicity	No information available.
Persistence and degradability	No information available.
Potential bioaccumulation	No information available.
Mobility in soil	According to the Kow value prediction, the bio - accumulativity of this substance may be relatively weak.
Other harmful effects:	According to the predicted Koc value, this substance may be prone to migration.

Section 13. Disposal considerations

Waste chemicals	It is recommended to dispose of it by incineration.
Contaminated packaging	Return the container to the manufacturer or dispose of it in accordance with national and local regulations.
Disposal Precautions	Before disposal, relevant national and local regulations should be referred to.

Section 14. Transport information

United Nations Dangerous Goods No. (UN No.)	1978
United Nations risk category	2.1
United Nations shipping name	Propane
Packaging category	II
Package Marking	
Packaging method	Steel Cylinders
Marine pollutants (Yes/No)	No
Transportation Precautions	For railway transportation of this product, self - provided tank cars of pressure - resistant liquefied gas enterprises shall be used for shipment within the time limit, and relevant departments shall be reported for approval before shipment. When transporting by cylinders, the safety caps on the cylinders must be properly worn. Generally, cylinders should be placed flat, and the bottle mouths should face the same direction without crossing; the height shall not exceed the vehicle's protective railings, and they should be firmly wedged with triangular wooden blocks to prevent rolling. During transportation, the transport vehicles should be equipped with corresponding types and quantities of fire - fighting equipment. The exhaust pipes of vehicles loading this product must be equipped with flame - arrester devices. The use of mechanical equipment and tools prone to sparking for loading and unloading is prohibited. It is strictly prohibited to mix - load and co - transport with oxidizing agents, halogens, etc. In summer, transportation should be carried out in the morning and evening to prevent sun exposure. During the stopover, keep away from kindling and heat sources. When transporting by road, follow the

	prescribed routes and do not stop in residential areas and densely populated areas. When transporting by railway, coasting is prohibited.
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Section 15. Regulatory information

Regulatory Information	The following laws, regulations and standards provide for the safe use, storage, transportation, loading and unloading, classification and marking of chemicals: Law of the People's Republic of China on Prevention and Control of Occupational Diseases: Classification catalog of occupational diseases : Not included Possible occupational diseases: None Regulations on the Safe Management of Dangerous Chemicals : Catalog of Hazardous Chemicals: Included Explosive hazardous chemicals: Not included Key regulatory hazardous chemicals: Included GB18218-2018 Hazardous source identification: Critical amount (t): 50 Regulations on Labor Protection in Workplaces with Drugs: Catalog of highly toxic substances: not included Regulations on the management of easy-to-control toxic chemicals: Catalog of easy-to-control toxic chemicals: not included International Conventions Stockholm Convention: Not included Rotterdam Convention: Not included Montreal Protocol: Not included
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Section 16. Other information

Preparation and development of information:	
Date of formulation	October 12, 2023
Formulation of instructions	This SDS is compiled in accordance with the standards such as the Content and Sequence of Items in the Technical Instructions for Chemical Safety (GB/T16483-2008) and the Content and Sequence of Items in the Technical Instructions for Chemical Safety (GB/T16483-2008). Among them, the results of GHS classification of chemicals are based on the classification carried out by itself in accordance with the Guidelines for the Implementation of the Catalog of Hazardous Chemicals (2015

	Edition) (for trial implementation) and the Specification for the Classification and Labeling of Chemicals (GB30000.2-2013 to GB30000.29-2013 series of standards).
bibliography	1、 Regulations on Safety Management of Dangerous Chemicals 2、 Guidelines for the Preparation of Technical Instructions on Chemical Safety (GB/T17519-2013) 3、 Contents and Item Order of Chemical Safety Technical Instructions (GB/T16483-2008) 4 、 《 Chemical Classification and Labeling Specifications 》 (GB30000.2-2013～GB30000.29-2013 series of standards) 5. The Third Edition of the Complete Book of Safety Technology for Hazardous Chemicals

Abbreviation Description:

MAC: The concentration of a toxic chemical that should not be exceeded at a workplace at any time during a workday.

PC-TWA: means the average permissible exposure concentration for an 8-h working day and a 40-h working week, using time as a weight.

PC-STEL: The concentration at which short-term (15min) exposure is permitted in compliance with the PC-TWA.

TLV-C: The limit value that must not be exceeded instantaneously. It is specified for certain substances such as irritant gases or substances with predominantly acute effects.

TLV-TWA: is the time-weighted average concentration of 8 hours of work per day or 40 hours of work per week, at which repeated exposure over a lifetime of work does not cause adverse effects in almost all workers.

TLV-STEL: is the maximum concentration at which continuous worker exposure for 15 min is permitted while ensuring compliance with the TLV-TWA. This concentration should not be exceeded more than four times per workday with a minimum of 60 min between exposures. it is a supplement to the TLV-TWA.

IARC: means International Agency for Research on Cancer.

RTECS: refers to the National Institute for Occupational Safety and Health's Chemical Toxicity Database.

HSDB: refers to the Hazardous Substances Database of the U.S. National Library of Medicine.

ACGIH: refers to the American Conference of Governmental Industrial Hygienists.

Disclaimer:

The information in this SDS applies only to the product specified and does not apply to mixtures of this product with other substances, etc., unless otherwise specified. This SDS provides information on the safety of use of the product only to those who have been properly trained in the use of the product. Users of this SDS must make independent judgment on the applicability of this SDS under special conditions of use. The authors of this SDS are not responsible for injuries resulting from the use of this SDS under special conditions of use.