



Shandong Baiding Chemical Co., LTD

Room 102, 1st Floor, East Office Building, No. 45 Pengwan Road, Qianwan Bonded Port Area, Qingdao Area, China
(Shandong) Pilot Free Trade Zone 2024 2629 (A)

Material Safety Data Sheet

Product name: Propylene

Prepared in accordance : GB/T 16483, GB/T 17519

Revision date: August 19, 2017

Part 1 Chemicals and Company Identification

Chinese name of the chemical: 丙烯

English name of the chemical: Propylene-(24h)

Recommended product and restricted use: For industry use only.

Part 2 Hazards Overview

Emergency Overview: Extremely flammable gas.

GHS Hazard Class: Gas under Pressure Category Compressed Gas

Flammable Gas: Category 1

Signal Word: Danger

Hazard Statements: H220 Extremely flammable gas.

Precautionary Statements:

Precautions: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Incident Response:

P377 Leaking Fire: Do not extinguish unless leak can be stopped safely.

P381 Remove all ignition sources if it is safe to do so.

Safe Storage:

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P403 Store in a well-ventilated place.

Disposal: None

Physical and Chemical Hazards: Extremely flammable gas.

Health Hazards: No data

Environmental Hazards: No data

Part 3 Composition/Information on Ingredients

Component	Concentration or concentration range (mass fraction, %)	CAS No.
propylene	100%	115-07-1

Part 4 First Aid Measures

First Aid:

Inhalation: If inhaled, move the patient to fresh air.

Skin Contact: Remove contaminated clothing and rinse skin thoroughly with soap and water. Seek medical attention if you feel any discomfort.

Eye Contact: Open the eyelids and rinse with running water or saline. Seek medical attention immediately.



Ingestion: Rinse mouth, do not induce vomiting. Seek medical attention immediately.

Advice to protect rescuers:

Move the patient to a safe place. Consult a doctor. Show this chemical safety data sheet to the doctor who arrives at the scene.

Special tips for doctors:No information.

Section 5 Firefighting measures

Fire extinguishing agents:

Use water mist, dry powder, foam or carbon dioxide fire extinguishing agents to extinguish fire.

Avoid using direct water to extinguish fire, which may cause flammable liquids to splash and spread the fire.

Special Hazards:No information.

Precautions and protective measures for firefighting:

Firefighters must wear air-carrying breathing apparatus and full-body fire suits and extinguish fire in the upwind direction.

Move the container away from the fire scene to an open area as much as possible.

If the container in the fire scene has changed color or a sound is heard from the safety pressure relief device, it must be evacuated immediately.

Isolate the accident site and prohibit unauthorized personnel from entering. Collect and process firefighting water to prevent environmental pollution.

Part 6 Emergency treatment of leakage

Protective measures, protective equipment and emergency treatment procedures for operators:

It is recommended that emergency treatment personnel wear portable respirators, anti-static clothing, and rubber oil-resistant gloves.

It is prohibited to touch or cross the leaked material.

All equipment used during operation should be grounded.

Cut off the source of leakage as much as possible.

Eliminate all ignition sources.

Demarcate the warning area according to the affected area of liquid flow, steam or dust diffusion, and evacuate irrelevant personnel from the sidewind and upwind directions to the safe area.

Environmental protection measures:

Contain the leaked material to avoid environmental pollution. Prevent the leaked material from entering the sewer, surface water and groundwater.

Containment and removal methods of leaked chemicals and disposal materials used:

Small leak: Collect the leaked liquid in a sealable container as much as possible. Absorb with sand, activated carbon or other inert materials and transfer to a safe place. Do not flush it into the sewer.

Large leak: Build a dike or dig a pit to contain it. Close the drainage pipe. Cover with foam to inhibit evaporation. Use explosion-proof pump to transfer to tank truck or special c



ollector for recycling or transport to waste disposal site for disposal.

Part 7 Handling and Storage

Operation Precautions:

Operators should be specially trained and strictly abide by the operating procedures.

Operation and handling should be carried out in places with local ventilation or comprehensive ventilation facilities.

Avoid contact with eyes and skin, and avoid inhalation of steam.

Personal protection measures refer to Part 8.

Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace.

Use explosion-proof ventilation systems and equipment.

If canning is required, the flow rate should be controlled and grounding devices should be provided to prevent static electricity accumulation.

Avoid contact with prohibited substances such as oxidants (see Part 10 for prohibited substances).

When transporting, load and unload gently to prevent damage to packaging and containers.

Empty containers may contain harmful substances.

Wash hands after use, and eating and drinking is prohibited in the workplace.

Equip with appropriate types and quantities of fire-fighting equipment and leakage emergency treatment equipment.

Storage Precautions:

Store in a cool and ventilated warehouse.

The warehouse temperature should not exceed 37°C.

It should be stored separately from oxidants and edible chemicals, and must not be mixed (see Part 10 for prohibited substances). Keep containers sealed.

Keep away from fire and heat sources.

Lightning protection equipment must be installed in the warehouse.

The exhaust system should be equipped with a grounding device to remove static electricity.

Use explosion-proof lighting and ventilation settings.

It is prohibited to use equipment and tools that are prone to sparks.

The storage area should be equipped with leakage emergency treatment equipment and appropriate containment materials.

Part 8 Exposure controls/personal protection

Occupational exposure limits:

Component Name	CAS	Standard Source	Type Standard	Value	Remarks
Propylene	115-07-1	GBZ 2.1—2007	MAC	-	NO



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			PC-TWA	-	
			PC-STEL	-	

Biological restrictions:No data

Monitoring methods:GBZ/T 160.1 ~ GBZ/T 160.81-2004 Determination of toxic substances in workplace air (series of standards), EN 14042 Workplace air Procedure guide for evaluating exposure to chemical or biological agents

Engineering control:

It is recommended that the workplace be separated from other workplaces.

Enclosed operation to prevent leakage.

Enhance ventilation.

Set up automatic alarm devices and accident ventilation facilities.

Set up emergency evacuation passages and necessary evacuation areas.

Set up red zone warning lines, warning signs and Chinese warning instructions, and set up a communication alarm system.

Provide safe showers and eyewash equipment.

Personal protective equipment:

Respiratory system protection: When the concentration in the air exceeds the standard, wear a filter gas mask (half mask). When rescuing or evacuating in an emergency, wear a portable respirator.

Hand protection: Wear rubber oil-resistant gloves.

Eye protection: Wear chemical safety goggles.

Skin and body protection: Wear work clothes that can prevent penetration by toxic substances.

Part 9 Physical and Chemical Properties

Appearance and properties: colorless gas **Odor:** no data

pH value: no data **Melting point/freezing point (°C):**?185?°C (lit.)

Boiling point, initial boiling point and boiling range (°C):?47.7?°C (lit.)

Autoignition temperature (°C): no data

Flash point (°C): -108?°C **Decomposition temperature (°C):** no data

Explosion limit [% (volume fraction)]: no data

Evaporation rate [(n-)butyl acetate as 1]: no data

Saturated vapor pressure (kPa): 15.4 atm (37.7 °C)

Flammability (solid, gas): no data

Relative density (water as 1): 1.49

Vapor density (air as 1): 1.48 (vs air)

Odor threshold (mg/m³): no data

n-octanol/water partition coefficient (lg P): no data

Solubility: no data **Viscosity:** no data

Part 10 Stability and Reactivity

Stability:

This product is stable when stored and used at normal ambient temperature.



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Hazardous reactions: No data.

Conditions to avoid: Static discharge, heat, moisture, etc.

Incompatible materials: Strong oxidizing agents, strong acids, strong bases.

Hazardous decomposition products: No data.

Part 11 Toxicological information

Acute toxicity:

Oral: No data

Inhalation: LC50 Rat inhalation 570,000 ppm/15 min /Conditions of bioassay not specified in source examined/

Dermal: No data

Skin irritation or corrosion: No data.

Eye irritation or corrosion: No data.

Respiratory or skin sensitization: No data.

Germ cell mutagenicity: No data.

Carcinogenicity: No data.

Reproductive toxicity: No data.

Specific target organ toxicity - single exposure: No data.

Specific target organ toxicity - repeated exposure: No data.

Aspiration hazard: No data.

Part 12 Ecological Information

Ecotoxicity:

Acute toxicity test for fish: No data.

Acute activity inhibition test for daphnia: No data.

Algae growth inhibition test: No data.

Toxicity to microorganisms: No data.

Persistence and degradability: No data.

Biological accumulation or bioaccumulation: No data.

Mobility in soil: No data.

Section 13 Disposal

Waste chemicals:

Recycle as much as possible.

If recycling is not possible, dispose of by incineration.

Do not dispose of this product by discharge into the sewer.

Contaminated packaging:

Return the container to the manufacturer or dispose in accordance with national and local regulations.

Disposal precautions:

Consult relevant national and local regulations before disposal.



For safety precautions for disposal personnel, refer to Section 8.

Part 14 Transport Information

United Nations Dangerous Goods Number (UN Number):UN1077

United Nations Shipping Name:PROPYLENE

United Nations Hazard Classification:

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Packing Category: No data

Packing Method:

Packaging in accordance with the method recommended by the manufacturer, for example: open steel drum. Ordinary wooden box outside ampoule bottle. Ordinary wooden box outside threaded glass bottle, iron cap pressed glass bottle, plastic bottle or metal barrel (can), etc.

Marine Pollutants (Yes/No): No

Transportation Precautions:

The transport vehicle should be equipped with fire-fighting equipment and leakage emergency treatment equipment of corresponding types and quantities.

It is strictly forbidden to mix and transport with oxidants, edible chemicals, etc.

The exhaust pipe of the vehicle carrying this item must be equipped with a fire-blocking device.

When using a tank truck for transportation, there should be a grounding chain, and a perforated partition can be set in the tank to reduce static electricity generated by vibration.

It is forbidden to use mechanical equipment and tools that are prone to sparks for loading and unloading.

It is best to transport in the morning and evening in summer.

It should be protected from exposure to the sun, rain and high temperature during transportation.

When stopping over, keep away from fire, heat sources, and high-temperature areas.

When transporting by road, follow the prescribed route and do not stop in residential areas or densely populated areas.

When transporting by rail, it is forbidden to let go.

It is strictly forbidden to transport in bulk by wooden boats or cement boats.

Danger signs and notices should be posted on the means of transport in accordance with relevant transportation requirements.

Part 15 Regulatory Information

The following laws, regulations, rules and standards make corresponding provisions for the management of this chemical:

Component propene CAS: 115-07-1

Law of the People's Republic of China on the Prevention of Occupational Diseases:

Classification Catalogue of Occupational Hazard Factors (2015): Not included

Regulations on the Safety Management of Hazardous Chemicals:



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Catalogue of Hazardous Chemicals (2015): Included

List of Explosive and Explosive Hazardous Chemicals (2017): Not included

List of Hazardous Chemicals under Key Supervision:

List of the First and Second Batch of Hazardous Chemicals under Key Supervision: Included

Measures for the Registration of Hazardous Chemicals for Environmental Management (Trial):

List of Hazardous Chemicals under Key Environmental Management: Not included

Regulations on the Management of Narcotic Drugs and Psychotropic Drugs:

Catalogue of Narcotic Drugs: Not included

Catalogue of Psychotropic Drugs: Not included

Measures for the Environmental Management of New Chemical Substances:

List of Existing Chemical Substances in China (2013): Included