

## Chemical Safety Data Sheet MSDS / SDS

## Propyl chloroformate

Revision Date:2026-03-20 Revision Number:1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## Product identifier

Product name : Propyl chloroformate  
CBnumber : CB9852781  
CAS : 109-61-5  
EINECS Number : 203-687-7  
Synonyms : NPCF;propyl carbonochloridate

## Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

## SECTION 2: Hazards identification

## GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

## Precautionary statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

## Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

## SECTION 3: Composition/information on ingredients

### Substance

Product name	: Propyl chloroformate
Synonyms	: NPCF;propyl carbonochloridate
CAS	: 109-61-5
EC number	: 203-687-7
MF	: C4H7ClO2
MW	: 122.55

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## SECTION 4: First aid measures

### If inhaled

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

### In case of skin contact

Take off all contaminated clothing immediately. If on skin, rinse well with water. Call a POISON CENTER or doctor/ physician.

### In case of eye contact

Rinse with plenty of water. If easy to do, remove contact lens, if worn. Immediately call a POISON CENTER or doctor/ physician.

### If swallowed

Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. Do NOT induce vomiting.

### Most important symptoms and effects, both acute and delayed

None known.

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## SECTION 5: Firefighting measures

### Suitable extinguishing media

Dry powder, Dry sand, Carbon dioxide (CO<sub>2</sub>)

### Unsuitable extinguishing media

Water

### Specific hazards during fire fighting

No information available.

### Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to

safe areas. Remove undamaged containers from fire area if it is safe to do so.

### **Special protective equipment for fire-fighters**

Use personal protective equipment.

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## **SECTION 6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

### **Environmental precautions**

Prevent product from entering drains.

### **Methods and materials for containment and cleaning up**

Collect as much of the spill as possible with a suitable absorbent material.

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## **SECTION 7: Handling and storage**

### **Handling**

#### **Technical measures**

Prevent generation of vapor or mist. Take precautionary measures against static discharge. Use explosion-proof equipment.

#### **Local/Total ventilation**

Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.

#### **Advice on safe handling**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not subject to grinding, shock or friction. Wash hands and face thoroughly after handling. Open drum carefully as content may be under pressure.

#### **Avoidance of contact**

Oxidizing agents, Acids, Strong bases, water, Amines

### **Storage**

#### **Conditions for safe storage**

Keep container tightly closed. Store in a refrigerator. Keep in a well-ventilated place. Use explosion-proof equipment. Protect from moisture. Keep under inert gas. Store locked up.

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## **SECTION 8: Exposure controls/personal protection**

### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

## Engineering measures

Install a closed system or local exhaust.

Also install safety shower and eye bath.

## Personal protective equipment

### Respiratory protection

Gas mask

Self-contained breathing apparatus

### Eye/face protection

Safety glasses

Safety goggles

Face-shield

### Skin and body protection

Impervious protective clothing

### Hand protection

Impervious gloves \*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

liquid

### Color

colorless - yellow

### Odor

No data available

### Odor Threshold

No data available

### pH

No data available

### Melting point/freezing point

No data available

### Boiling point/boiling range

115 °C

### Flash point

28 °C

**Evaporation rate**

No data available

**Flammability**

No data available

**Upper explosion limit / Upper flammability limit**

No data available

**Lower explosion limit / Lower flammability limit**

No data available

**Vapor pressure**

2.7 kPa (25 °C)

**Relative vapor density**

4.2

**Relative density**

1.09

**Solubility(ies)**

benzene: miscible(lit.)

**Water solubility**

insoluble

**Solubility in other solvents**

completely miscible Solvent: Ether completely miscible Solvent: Benzene completely miscible Solvent: Chloroform

**Partition coefficient: n-octanol/water**

No data available

**Autoignition temperature**

No data available

**Decomposition temperature**

No data available

**Viscosity****Viscosity, dynamic**

No data available

**Viscosity, kinematic**

No data available

**Molecular weight**

122.55 g/mol

**Physical state**

Oil

**Dielectric constant**

11.2 (20°C)

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**SECTION 10: Stability and reactivity****Reactivity**

No data available

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

Decomposes in contact with water and liberates toxic gases.

**Conditions to avoid**

Heat. Electrical spark Open flame Electrostatic discharge Exposure to moisture.

**Incompatible materials**

Oxidizing agents, Acids, Strong bases, water, Amines

**Hazardous decomposition products**

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride gas

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**SECTION 11: Toxicological information****Acute toxicity****Product****Acute oral toxicity**

Assessment: The component/mixture is moderately toxic after single ingestion.

**Acute inhalation toxicity**

Assessment: The component/mixture is highly toxic after short term inhalation.

**Components****Propyl Chloroformate**

### **Acute oral toxicity**

LD50 (Mouse): 650 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.

### **Acute inhalation toxicity**

LC50 (Mouse): 319 ppm Exposure time: 1 h Test atmosphere: gas Assessment: The component/mixture is highly toxic after short term inhalation.

### **Acute dermal toxicity**

LD50 (Mouse): > 10 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

### **Skin corrosion/irritation**

#### **Product**

#### **Result**

Causes burns.

#### **Components**

#### **Propyl Chloroformate**

#### **Result**

Causes burns.

### **Serious eye damage/eye irritation**

#### **Product**

#### **Result**

Irreversible effects on the eye

#### **Components**

#### **Propyl Chloroformate**

#### **Result**

Irreversible effects on the eye

### **Respiratory or skin sensitization**

Classified based on available data. For more details, see section 2.

### **Germ cell mutagenicity**

Classified based on available data. For more details, see section 2.

### **Carcinogenicity**

Classified based on available data. For more details, see section 2.

### **Reproductive toxicity**

Classified based on available data. For more details, see section 2.

### **STOT-single exposure**

#### **Product**

#### **Target Organs**

Respiratory system

#### **Assessment**

May cause damage to organs.

#### **Components**

### **Propyl Chloroformate**

#### **Target Organs**

Respiratory system

#### **Assessment**

May cause damage to organs.

### **STOT-repeated exposure**

Classified based on available data. For more details, see section 2.

### **Repeated dose toxicity**

Classified based on available data. For more details, see section 2.

### **Aspiration toxicity**

Classified based on available data. For more details, see section 2.

### **RTECS No.**

LQ6830000 (Propyl Chloroformate)

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## SECTION 12: Ecological information

### **Ecotoxicity**

No data available

### **Persistence and degradability**

No data available

### **Bioaccumulative potential**

No data available

### **Mobility in soil**

No data available

### **Other adverse effects**

No data available

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## SECTION 13: Disposal considerations

### **Disposal methods**

#### **Waste from residues**

Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.

#### **Contaminated packaging**

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

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## SECTION 14: Transport information

### **International Regulations**

#### **IATA-DGR**

Not permitted for transport

#### **IMDG-Code**

#### **UN number**

UN 2740

#### **Proper shipping name**

n-PROPYL CHLOROFORMATE

#### **Class**

6.1

#### **Subsidiary risk**

3, 8

#### **Packing group**

I

#### **EmS Code**

F-E, S-C

### **Domestic regulation**

#### **GB 6944/12268**

#### **UN number**

UN 2740

#### **Proper shipping name**

N-PROPYL CHLOROFORMATE

**Class**

6.1

**Subsidiary risk**

3, 8

**Packing group**

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## SECTION 15: Regulatory information

### Regulations on Safety Management of Hazardous Chemicals

#### Catalogue of Hazardous Chemicals

Listed

#### The ingredients of this product are reported in the following inventories

##### CH BAGREG

On the inventory, or in compliance with the inventory

##### TSCA

All substances listed as active on the TSCA inventory

##### AICS

Not in compliance with the inventory

##### DSL

None of the components of this product are on the Canadian DSL, but all are on the NDSL

Propyl Chloroformate

##### ENCS

On the inventory, or in compliance with the inventory

##### ISHL

On the inventory, or in compliance with the inventory

##### KECI

On the inventory, or in compliance with the inventory

##### PICCS

On the inventory, or in compliance with the inventory

##### IECSC

On the inventory, or in compliance with the inventory

##### NZIoC

Not in compliance with the inventory

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## SECTION 16: Other information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.