

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

Perihalan Produk: **4-Chlorobenzyl chloride**  
 Product Description: **4-Chlorobenzyl chloride**  
 Cat No. : 150240000; 150240050; 150242500; 150240010  
 Synonyms PCBC  
 CAS No 104-83-6  
 Molecular Formula C7 H6 Cl2

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

Recommended Use Laboratory chemicals.  
 Uses advised against No Information available

**Company**

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 CHEMTREC Malaysia **1-800-815-308** (Malay)  
 CHEMTREC Malaysia (Kuala Lumpur) **+(60)-327884561** (Malay)

**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

Acute oral toxicity	Category 4 (H302)
Acute dermal toxicity	Category 4 (H312)
Acute Inhalation Toxicity - Dusts and Mists	Category 4 (H332)
Skin Sensitization	Category 1 (H317)
Chronic aquatic toxicity	Category 2 (H411)

**Label Elements**


Signal Word

Warning

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## Hazard Statements

H317 - May cause an allergic skin reaction  
H411 - Toxic to aquatic life with long lasting effects  
H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled

## Precautionary Statements

### Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

### Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P330 - Rinse mouth  
P362 + P364 - Take off contaminated clothing and wash it before reuse

### Storage

P403 - Store in a well-ventilated place

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Other Hazards

Lachrymator (substance which increases the flow of tears)  
This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
p-Chlorobenzyl chloride	104-83-6	> 99

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

<b>Eye Contact</b>	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician immediately.
<b>Inhalation</b>	Remove from exposure, lie down. Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Causes burns by all exposure routes. . May cause allergic skin reaction.

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## Indication of any immediate medical attention and special treatment needed

### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

#### Extinguishing media which must not be used for safety reasons

No information available.

### Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

### Hazardous Combustion Products

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

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation.

### Environmental precautions

Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation.

### Conditions for Safe Storage, Including any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area.

### Specific End Uses

Use in laboratories.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Exposure Controls

##### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

##### **Personal protective equipment**

###### **Eye Protection**

Goggles

###### **Hand Protection**

Protective gloves

###### **Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

###### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

###### **Recommended Filter type:**

Particulates filter conforming to EN 143

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

Prevent product from entering drains Do not allow material to contaminate ground water system

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### **Appearance**

White

#### **Physical State**

Solid

#### **Odor**

Odorless

#### **Odor Threshold**

No data available

#### **pH**

No information available

#### **Melting Point/Range**

27 - 28 °C / 80.6 - 82.4 °F

#### **Softening Point**

No data available

#### **Boiling Point/Range**

221 °C / 429.8 °F

@ 760 mmHg

#### **Flash Point**

107 °C / 224.6 °F

**Method** - No information available

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Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	<b>Lower</b> 2 Vol% <b>Upper</b> 8.6 Vol%	

Vapor Pressure	No data available	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	Insoluble	
Solubility in other solvents	No information available	

## Partition Coefficient (n-octanol/water)

Component	<b>log Pow</b>
p-Chlorobenzyl chloride	3.18

Autoignition Temperature	650 °C / 1202 °F	
Decomposition Temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Molecular Formula	C7 H6 Cl2
Molecular Weight	161.03

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Moisture sensitive.

### Possibility of Hazardous Reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	No information available.

### Conditions to Avoid

Excess heat. Incompatible products. Exposure to moist air or water.

### Incompatible Materials

Bases. Strong oxidizing agents. Alcohols. Amines. Finely powdered metals. Metals.

### Hazardous Decomposition Products

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

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## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Product Information

(a) acute toxicity;

Oral	Category 4
Dermal	Category 4
Inhalation	Category 4

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory	No data available
Skin	Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs	No information available.
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(j) aspiration hazard; Not applicable  
Solid

**Other Adverse Effects** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

**Symptoms / effects, both acute and delayed** No information available.

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity effects** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

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environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
p-Chlorobenzyl chloride				EC50 = 0.51 mg/L 5 min EC50 = 0.60 mg/L 15 min EC50 = 0.64 mg/L 30 min

## Persistence and degradability

**Persistence**  
**Degradation in sewage treatment plant**

Insoluble in water, May persist, based on information available.  
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

## Bioaccumulative potential

May have some potential to bioaccumulate

Component	log Pow	Bioconcentration factor (BCF)
p-Chlorobenzyl chloride	3.18	No data available

## Mobility in soil

Spillage unlikely to penetrate soil. The product evaporates slowly. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil.

## Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## Other adverse effects

No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from Residues/Unused Products**

Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

**Other Information**

Do not flush to sewer Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains Do not let this chemical enter the environment

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

UN-No UN3427  
Hazard Class 6.1  
Packing Group III  
Proper Shipping Name CHLOROBENZYL CHLORIDES, SOLID

### Road and Rail Transport

UN-No UN3427  
Hazard Class 6.1  
Packing Group III  
Proper Shipping Name CHLOROBENZYL CHLORIDES, SOLID

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## IATA

**UN-No** UN3427  
**Hazard Class** 6.1  
**Packing Group** III  
**Proper Shipping Name** CHLOROBENZYL CHLORIDES, SOLID

**Special Precautions for User** No special precautions required

## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**International Inventories** X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
p-Chlorobenzyl chloride	203-242-7	X	-	X	X	X	X	X	KE-05571

### National Regulations

**Persistent Organic Pollutant** This product does not contain any known or suspected substance  
**Ozone Depletion Potential** This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS



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Revision Date	21-Mar-2025
Revision Summary	Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**