

## Chemical Safety Data Sheet MSDS / SDS

## Pentachlorophenol

Revision Date:2026-03-21 Revision Number:1

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

## Product identifier

Product name : Pentachlorophenol  
CBnumber : CB8854526  
CAS : 87-86-5  
EINECS Number : 201-778-6  
Synonyms : dust ;Penta

## 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

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

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

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

Continuerinsing.

## Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H330 Fatal if inhaled

H335 May cause respiratory irritation

H351 Suspected of causing cancer

H410 Very toxic to aquatic life with long lasting effects

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## SECTION 3: Composition/information on ingredients

### Substance

Product name	: Pentachlorophenol
Synonyms	: dust ;Penta
CAS	: 87-86-5
EC number	: 201-778-6
MF	: C6HCl5O
MW	: 266.34

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## SECTION 4: First aid measures

### First Aid Measures

#### General advice

Immediate medical attention is required. If symptoms persist, call a physician.

#### Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. If symptoms persist, call a physician.

#### Skin Contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

#### Inhalation

Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Artificial respiration and/or oxygen may be necessary. Call a physician. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

#### Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.

#### Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

#### Symptoms

No information available.

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

## Note to physicians

Treat symptomatically.

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## SECTION 5: Firefighting measures

### Suitable Extinguishing Media

#### Suitable Extinguishing Media

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

#### Unsuitable Extinguishing Media

None.

### Specific hazards arising from the chemical

#### Specific hazards arising from the chemical

Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

#### Hazardous combustion products

Carbon oxides. Phosgene.

### Explosion data

#### Sensitivity to Mechanical Impact

No information available.

#### Sensitivity to Static Discharge

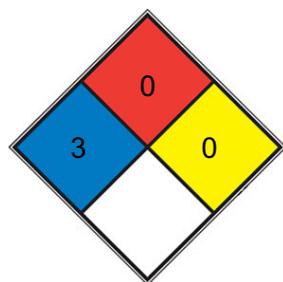
No information available.

### Protective equipment and precautions for firefighters

Protective equipment and precautions Wear self-contained breathing apparatus and protective suit.

for firefighters

### NFPA 704



■ HEALTH 3 Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)

■ FIRE 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)

■ REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,[N2](#))

□ SPEC.

□ HAZ.

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## SECTION 6: Accidental release measures

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

#### **Personal precautions**

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

#### **Environmental precautions**

##### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional

Ecological Information. Should not be released into the environment.

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

#### **Methods for containment**

Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

#### **Methods for cleaning up**

Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

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## SECTION 7: Handling and storage

### **Precautions for safe handling**

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

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray.

Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

### **Conditions for safe storage, including any incompatibilities**

#### **Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Store at room temperature.

#### **Incompatible materials**

None known based on information supplied.

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## SECTION 8: Exposure controls/personal protection

## Control parameters

## Exposure Guidelines

## Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Pentachlorophenol 87-86-5	STEL: 1 mg/m <sup>3</sup> inhalable fraction and vapor	TWA: 0.5 mg/m <sup>3</sup> (vacated) TWA: 0.5 mg/m <sup>3</sup> (vacated)	IDLH: 2.5 mg/m <sup>3</sup>
	TWA: 0.5 mg/m <sup>3</sup> inhalable fraction and vapor S*	S*	TWA: 0.5 mg/m <sup>3</sup>

NIOSH IDLH Immediately Dangerous to Life or Health

## Appropriate engineering controls

### Engineering Controls

Showers

Eyewash stations

Ventilation systems

## Individual protection measures, such as personal protective equipment

### Eye/face protection

Tight sealing safety goggles. Face protection shield.

### Skin and Body Protection

Wear protective gloves and protective clothing.

### Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

### General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Physical State	Solid
Appearance	powder or crystalline
Odor	No information available
pH	No information available
Melting point/freezing point	165 °C
Boiling point	310 °C
Flash point	11 °C

Density	1.98 g/cm <sup>3</sup>
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	40
Vapor density	9.2
Specific gravity	1.98
Water solubility	80 mg l <sup>-1</sup> (30 °C)
Solubility in other solvents	No information available
Partition coefficient	5.12
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Solubility	Chloroform (Slightly), Ethyl Acetate (Sparingly)
Henry's Law Constant	21 (quoted, Petrasek et al., 1983)

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## SECTION 10: Stability and reactivity

### Reactivity

Not applicable

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous polymerization

No information available.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong oxidizing agents.

### Hazardous Decomposition Products

Carbon oxides. Phosgene.

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## SECTION 11: Toxicological information



Chemical Name	Algae/aquatic plants	Fish	Microorganisms	Crustacea
Pentachlorophenol 87-86-5	0.183: 72 h Desmodesmus subspicatus mg/L EC50 static 0.005 - 0.3: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.1: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	0.170 - 0.3: 96 h Oryzias latipes mg/L LC50 static 0.103 - 0.129: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.102 - 0.128: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.031 - 0.038: 96 h Oncorhynchus mykiss mg/L LC50 static 0.36: 96 h Poecilia reticulata mg/L LC50 0.11 - 0.49: 96 h Pimephales promelas mg/L LC50 static 0.079 - 0.187: 96 h Pimephales promelas mg/L LC50 flow-through		0.138 - 0.307: 48 h Daphnia magna mg/L EC50 Static

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

### Pentachlorophenol 0.183: 72 h Desmodesmus 0.170

0.3: 96 h Oryzias - 0.138 - 0.307: 48 h Daphnia

### 87

86-5 subspicatus mg/L EC50 latipes mg/L LC50 static magna mg/L EC50 Static

### static 0.005

0.3: 96 h 0.103 - 0.129: 96 h Lepomis

### Pseudokirchneriella

macrochirus mg/L LC50

### Pseudokirchneriella

mg/L LC50 flow-through

### LC50 static 0.079

0.187: 96 h Pimephales promelas mg/L LC50 flow-through

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

**Persistence and degradability No information available. Bioaccumulation No information available. Mobility No information available.**

### Pentachlorophenol

5.01 87-86-5

## SECTION 13: Disposal considerations

### Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations. Should not be released into the environment.

## Contaminated packaging

Do not reuse container.

## Other Information

Waste codes should be assigned by the user based on the application for which the product was used.

## California Hazardous Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
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## SECTION 14: Transport information

### DOT

#### UN/ID no

UN3155

#### Hazard Class

6.1

#### Packing Group

II

#### Proper shipping name

Pentachlorophenol

#### Description

UN3155, Pentachlorophenol, 6.1, II, Marine pollutant, POISON Marine pollutant This product contains a chemical which is listed as a severe marine pollutant according to DOT

#### Emergency Response Guide Number

154

### IMDG

#### UN/ID no

UN3155

#### Hazard Class

6.1 Subsidiary hazard class P

#### Packing Group

II

#### Proper shipping name

Pentachlorophenol

#### Description

UN3155, Pentachlorophenol, 6.1 (P), II, Marine pollutant

#### Special Provisions

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#### EmS-No

F-A, S-A Marine pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

## IATA

### UN/ID no

UN3155

### Hazard Class

6.1

### Packing Group

II

### Proper shipping name

Pentachlorophenol

### Description

UN3155, Pentachlorophenol, 6.1, II

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## SECTION 15: Regulatory information

### International Inventories

All of the components in the product are on the following Inventory lists

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) South Korea (KECL): China (IECSC)

ENCS (Japan): Philippines (PICCS)

X - Listed

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Pentachlorophenol	X	X	-	X	-	X	X	X	X	X

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

##### Acute health hazard

Yes

##### Chronic Health Hazard

Yes

##### Fire hazard

No

**Sudden release of pressure hazard**

No

**Reactive hazard**

No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Pentachlorophenol 87-86-5	10 lb	X	X	X

**US State Regulations****U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Pentachlorophenol 87-86-5	X	X	X

**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.