



Material Safety Data Sheet
p-Chlorbenzoic acid, 99%

Section 1 - Chemical Product and Company Identification

MSDS Name: 4-Chlorobenzoic acid, 99%

Synonyms: PCBA; Benzoic acid, 4-chloro-; p-Carboxychlorobenzene; 4-Chlorbenzoic acid; p-Chlorobenzoic acid; Chlorodracrylic acid

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
74-11-3	4-Chlorobenzoic acid	99	200-805-9

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to yellow crystalline powder.

Caution! Causes skin irritation. May be harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated. Vapor or mist is irritating to the eyes, mucous membranes and upper respiratory system.

Target Organs: No data found.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation: The toxicological properties of this substance have not been fully investigated. Causes irritation of the mucous membrane and upper respiratory tract.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: > 110 deg C (> 230.00 deg F)

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
4-Chlorobenzoic acid	none listed	none listed	none listed

OSHA Vacated PELs: 4-Chlorobenzoic acid: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Appearance: white to yellow
Odor: odorless
pH: Not available.
Vapor Pressure: 1.85103 mm Hg @25 deg (est)
Vapor Density: Not available.
Evaporation Rate:Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point:240.00 - 242.00 deg C
Decomposition Temperature:> 545 deg C
Solubility: soluble in hot water
Specific Gravity/Density:Not available.
Molecular Formula:C7H5ClO2
Molecular Weight:156.57

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, excess heat, strong oxidants.
Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.
Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, carbon dioxide, chloride fumes.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 74-11-3: DG4976010
LD50/LC50:
CAS# 74-11-3:
Oral, mouse: LD50 = 1170 mg/kg;
Oral, rat: LD50 = 1170 mg/kg; .
Carcinogenicity:
CAS# 74-11-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
Epidemiology: No information found
Teratogenicity: No information found

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: If released to soil or water, will exist mainly in the dissociated form under most environmental pHs. Hydrolysis and volatilization in soil and water not expected to be important. May slowly leach to groundwater, may be subject to biodegradation. Bioconcentration in aquatic organisms not expected to occur. Will exist mainly in the vapor phase in the ambient atmosphere. May be subject to reaction with photochemically produced hydroxyl radicals. Direct photolysis not a major environmental pathway.
Physical: No data available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

Hazard Symbols:

XN

Risk Phrases:

R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water .

WGK (Water Danger/Protection)

CAS# 74-11-3: 2

Section 16 - Additional Information

MSDS Creation Date: 9/02/1999

Revision #6 Date: 10/03/2006

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