



Material Safety Data Sheet

p-Cresol

MSDS# 17610

Section 1 - Chemical Product and Company Identification

MSDS Name: p-Cresol

Catalog Numbers: AC110590000, AC110590050, AC110591000, AC110595000, AC405740000, AC405740040
AC405740040, AC405740050, AC405741000, AC405745000

Synonyms: 4-Cresol; p-Cresylic Acid; 1-Hydroxy-4-Methylbenzene; p-Hydroxytoluene; 4-Hydroxytoluene; p-Methylphenol.

Company Identification:

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:

201-796-7100

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 106-44-5
Chemical Name: p-Cresol
%: >98
EINECS#: 203-398-6

Hazard Symbols:



Risk Phrases:

T C



24/25 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! May cause allergic skin reaction. Toxic. Hygroscopic (absorbs moisture from the air). Light sensitive. Causes eye and skin burns. Causes digestive and respiratory tract burns. May cause liver and kidney damage. May be fatal if inhaled.

Harmful if swallowed or absorbed through the skin. Material is a solid at room temperature that melts upon moderate heating into a combustible liquid with a flash point below 200°F(93.3°C). Target Organs: Kidneys, central nervous system, liver, respiratory system.

Potential Health Effects

Eye: Causes eye burns. May result in corneal injury. Contact with liquid is corrosive to the eyes and causes severe burns. May cause conjunctivitis and keratitis.

Skin: May be absorbed through the skin in harmful amounts. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Causes severe skin irritation and burns.

Ingestion: May cause severe and permanent damage to the digestive tract. May cause vascular collapse and damage. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause kidney, liver and spleen damage. Rapidly absorbed from the gastrointestinal tract. Cresols may cause abnormalities of the central nervous system, respiratory system, spleen and pancreas.

Inhalation: May be fatal if inhaled. Irritation may lead to chemical pneumonitis and pulmonary edema. May cause liver and kidney damage. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract. May cause headache. May cause nausea and possible vomiting.

Chronic: May cause liver and kidney damage. Repeated exposure may cause sensitization dermatitis. May cause appetite loss, diarrhea, skin abnormalities, and digestive tract disturbances.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure. Destroy contaminated shoes.

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

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to
Physician:

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. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May polymerize explosively when involved in a fire. Material is a solid at room temperature that melts upon moderate heating into a combustible liquid with a flash point below 200°F(93.3°C).

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.

Autoignition Temperature: 558.9 deg C (1,038.02 deg F)

Flash Point: 86.1 deg C (186.98 deg F)

Explosion Limits: Lower: 1.1% @ 150C

Explosion Limits: Upper: Not available

NFPA Rating: health: 3; flammability: 2; instability: 0;

Section 6 - Accidental Release Measures

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

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Provide ventilation. Evacuate unnecessary personnel.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Ground and bond containers when transferring material. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. If the water content is below approximately 0.3% and the temperature exceeds 268°F (120°C), violent corrosion of aluminum and its alloys may occur.

Section 8 - Exposure Controls, Personal Protection

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Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
p-Cresol	5 ppm; Skin - potential significant contribution to overall exposure by the cutaneous route	2.3 ppm TWA; 10 mg/m3 TWA 250 ppm IDLH	5 ppm TWA; 22 mg/m3 TWA (listed under Cresol).

OSHA Vacated PELs: p-Cresol: 5 ppm TWA; 22 mg/m3 TWA (listed under Cresol)

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

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.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: colorless to light yellow

Odor: phenol-like

pH: Not available

Vapor Pressure: 1 mm Hg @ 53 deg C

Vapor Density: 3.72 (air=1)

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 202.2 deg C (395.96°F)

Freezing/Melting Point: 35 deg C (95.00°F)

Decomposition Temperature: Not available

Solubility in water: 22.6g/L @ 40C.

Specific Gravity/Density: 1.03 (water=1)

Molecular Formula: C7H8O

Molecular Weight: 108.0554

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. Low melting point solid.

Conditions to Avoid: Incompatible materials, light, ignition sources, excess heat.

Incompatibilities with Other Materials: Oxidizing agents, strong acids, bases, active metals, coatings, nitric acid, plastics, rubber, aliphatic amines, amides, chlorosulfonic acid, oleum, alkalies.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, cresol.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 106-44-5: GO6475000

RTECS:

CAS# 106-44-5: Draize test, rabbit, eye: 103 mg Severe;

Draize test, rabbit, skin: 517 mg/24H Severe;
Inhalation, rat: LC50 = >710 mg/m³/1H;
Inhalation, rat: LC50 = 29 mg/m³;
Oral, mouse: LD50 = 344 mg/kg;
Oral, mouse: LD50 = 160 mg/kg;
LD50/LC50: Oral, rabbit: LD50 = 620 mg/kg;
Oral, rat: LD50 = 207 mg/kg;
Oral, rat: LD50 = 270 mg/kg;
Skin, rabbit: LD50 = 301 mg/kg;
Skin, rabbit: LD50 = 301 mg/kg;
Skin, rat: LD50 = 750 mg/kg;
Skin, rat: LD50 = 750 mg/kg;
.
Carcinogenicity: p-Cresol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50 = 19-28.6 mg/L; 96 Hr.; Unspecified
Fish: LC50 = 19-28.6 mg/L; 96 Hr.; Unspecified
Bacteria: Phytobacterium phosphoreum: EC50 = 1.6 mg/L; 15 Minutes; Microtox test

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: CRESOLS, SOLID

Hazard Class: 6.1

UN Number: UN3455

Packing Group: II

Canada TDG

Shipping Name: O CRESOL

Hazard Class: 6.1

UN Number: UN2076

Packing Group: II

USA RQ: CAS# 106-44-5: 100 lb final RQ; 45.4 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T C

Risk Phrases:

R 24/25 Toxic in contact with skin and if swallowed.

R 34 Causes burns.

Safety Phrases:

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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

WGK (Water Danger/Protection)

CAS# 106-44-5: 2

Canada

CAS# 106-44-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: B3, D1A, E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations

and the MSDS contains all of the information required by those regulations.

CAS# 106-44-5 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 106-44-5 is listed on the TSCA

Inventory.

Section 16 - Other Information

MSDS Creation Date: 5/05/1999

Revision #9 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
