

m-Cresol

This document provides a brief description of m-cresol, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS safety data sheet.

Identification

Product Name:	M-Cresol Pure
Chemical Name:	3-Methylphenol
Synonym(s):	1-Hydroxy-3-methyl-benzene 3-Cresol 3-Hydroxytoluene m-Hydroxytoluene m-Methylphenol m-Oxytoluene m-Toluol
CAS Number:	108-39-4

Description

Overview: m-Cresol is a clear to yellowish or red liquid at ambient temperatures. The chemical has a characteristic tar-like odor.

Uses: m-Cresol is sold by LANXESS for use as an intermediate in the production of photoresists and resins used in thermal printers and carbon paper. The chemical is also used as an intermediate in the production of fumigants, disinfectants, herbicides, photographic developers, explosives, synthetic Vitamin E and other products.

Properties:	Boiling Point:	Approx. 396°F (202.22°C)
	Flash Point:	Approx. 187°F (86.11°C)
	Melting Point:	Approx. 54°F (12°C)
	Solubility in Water:	Soluble

Potential Human Health Effects

Occupational Exposure

Potential for occupational exposure exists during manufacture, at transloading facilities, during transfers to storage or staging areas and in sampling operations where the chemical is used as an intermediate in the manufacture of other products. Workers handling commercial or industrial products manufactured using m-cresol as an ingredient may also be exposed to low concentrations of the chemical. A much lower potential for exposure exists in facilities using the chemical in closed manufacturing processes by trained personnel.

Employee Training

Workers handling m-cresol are trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved air-purifying organic vapor respirator is recommended. An emergency, self-contained breathing apparatus or full-face airline respirator should be available. In addition, LANXESS recommends that goggles, permeation resistant clothing, gloves and foot protection be worn when handling m-cresol.

Engineering or process controls may be necessary in operations where vapor or mist concentrations are expected.

Consumer Exposure

LANXESS does not sell m-cresol to the general public. The organic compound occurs naturally in many plants and trees. Consumers may be also be exposed to m-cresol through inhalation of tobacco smoke, car exhaust or smoke emitted from fireplaces and wood stoves.

Short-Term Health Effects

m-Cresol is corrosive. Skin contact may be irritating with symptoms of redness, itching, swelling and severe burning. Eye contact may cause symptoms of redness, tearing, swelling, burning, and serious eye damage. Inhaling m- cresol may cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. m-Cresol is toxic by ingestion. Toxic through ingestion with symptoms that may include abdominal pain, burning or ulceration of the digestive tract, nausea, vomiting and diarrhea. Permanent tissue damage is possible from all routes of exposure.

Prolonged exposure to m-cresol may cause nervous system effects with symptoms of headache, numbness, lack of coordination and/or confusion. Additional symptoms may include nausea, sweating, tinnitus (a ringing in the ears), blurred vision, weakness, circulatory effects, irregular heartbeat or labored breathing. Severe cases may result in seizures, shock, unconsciousness, coma or respiratory failure.

Long-Term Health Effects

Chronic exposure may cause allergic dermatitis, digestive disturbances and damage to blood, lungs, liver, kidneys, pancreas, spleen or heart. m-Cresol has been classified by the U.S. Environmental Protection Agency (EPA) as a possible human carcinogen.

Physical Hazards

m-Cresol is corrosive and combustible. Vapors may form explosive mixtures with air. Avoid contact with strong acids, oxidizing agents, active metals, nitric acid, and oleum. Heating the chemical to decomposition may produce carbon oxides and other toxic fumes. Exposure to heat, open flames and other potential sources of ignition should be avoided. Do not pressurize.

Potential Environmental Impact

m-Cresol is readily biodegradable in soils. Vapor emissions degrade rapidly in the presence of sunlight. Releases to water may pose a danger to fish (high toxicity), invertebrates (moderate toxicity) and aquatic plants (moderate toxicity) prior to degradation. Accumulation in the environment is not expected.

Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, m-cresol is not expected to pose a significant risk to human health or the environment.

References

Integrated Risk Information System (IRIS), U.S. Environmental Protection Agency (EPA)

International Chemical Safety Card, International Programme on Chemical Safety (IPCS)

Safety Data Sheet (SDS), M-CRESOL PURE, LANXESS Corporation

M/P-Cresol Category Screening Information Data Set (SIDS) Initial Assessment Profile, Organization for Economic Cooperation and Development

MedlinePlus Medical Encyclopedia, U.S. National Library of Medicine and the National Institutes of Health

ToxNet Hazardous Substances Data Bank, U.S. National Library of Medicine, National Institutes of Health and the U.S. Department of Health and Human Services

Contact Information

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Notices

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