

2-Chloro-4-toluidine

This document provides a brief description of 2-chloro-4-toluidine, 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:	2-Chloro-4-toluidine pure distilled
Chemical Name:	2-Chloro-4-toluidine
Synonym(s):	1-Amino-3-chloro-4-methylbenzene 2-Chloro-4-aminotoluene 3-Chloro-4-methylaniline 3-Chloro-p-toluidine
CAS Number:	95-74-9

Description

Overview:	2-Chloro-4-toluidine is a light brown solid at ambient temperatures. The chemical has a mild, characteristic odor.		
Uses:	2-Chloro-4-toluidine is sold by LANXESS for use as an intermediate in the production of dyes, organic pigments, optical brighteners, printing inks, pesticides and other products.		
Properties:	Boiling Point:	243°C (469.4°F)	
	Melting Point:	24°C (75.2°F)	
	Flash Point:	100°C (212°F)	
	Solubility in Water:	Soluble	

Potential Human Health Effects

Occupational Exposure

Potential for exposure to 2-chloro-4-toluidine exists during manufacture, at unloading, storage and staging areas, in connection/disconnection operations and during the charging of reactor vessels. A much lower potential for exposure exists in facilities using the chemical in closed manufacturing processes by trained personnel.

Employee Training

Workers handling 2-chloro-4-toluidine should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved air-purifying respirator with organic vapor cartridges and particulate prefilter is recommended in situations where airborne concentrations of the chemical exceed recommended or statutory limits or are unknown. In addition, LANXESS recommends that safety glasses with side shields, permeation resistant gloves, a chemical-resistant protective suit and suitable foot protection be worn when handling 2-chloro-4-toluidine.

Consumer Exposure

LANXESS Corporation does not sell 2-chloro-4-toluidine to the general public.

Short-Term Health Effects

2-chloro-4-toluidine may be harmful if inhaled, absorbed through skin or swallowed.

Skin contact may be irritating and may cause sensitization. Pre-existing skin disorders may be aggravated by over-exposure to this product. Skin contact, inhalation or ingestion of 2-chloro-4-toluidine in sufficient quantities may cause methemoglobinemia, a temporary condition that reduces the ability of blood to carry oxygen. Symptoms may include cyanosis, a purplish-blue coloring of the skin, fingernails and lips. Symptoms may be delayed. Eye contact with 2-chloro-4-toluidine dust may cause mechanical irritation.

Long-Term Health Effects

Sensitized individuals may experience a severe allergic reaction when subsequently exposed to very low levels of the chemical compound, with symptoms of redness, swelling and rash.

Physical Hazards

2-chloro-4-toluidine is stable under normal conditions of use. Avoid contact with oxidizing agents. Heating to decomposition may release carbon monoxide, carbon dioxide, nitrogen oxides, halogenated compounds and other potentially toxic fumes or gases. Avoid heat, open flames and other potential sources of ignition.

Potential Environmental Impact

2-chloro-4-toluidine is biodegradable. Vapors degrade rapidly with exposure to air. A release to water may pose a danger to fish (high toxicity), invertebrates (high toxicity) and aquatic plants (high toxicity) prior to degradation. The chemical may adsorb to suspended soils and sediments. Bioaccumulation 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, 2-chloro-4-toluidine is not expected to pose a significant risk to human health or the environment.

References

IUCLID Dataset, 3-Chloro-p-toluidine (95-74-9), European Chemicals Bureau, European Commission

Safety Data Sheet (SDS), 2-Chloro-4-toluidine pure distilled, LANXESS Corporation

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

ToxNet Hazardous Substance 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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