

4-Chlorobenzotrifluoride

sc-210011

Material Safety Data Sheet



The Power is Question

Hazard Alert Code Key: **EXTREME** **HIGH** **MODERATE** **LOW**

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

4-Chlorobenzotrifluoride

STATEMENT OF HAZARDOUS NATURE

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

NFPA



SUPPLIER

Company: Santa Cruz Biotechnology, Inc.

Address:

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Santa Cruz, CA 95060

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877-715-9305

Emergency Tel: From outside the US and Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

PRODUCT USE

Intermediate in the manufacture of dyes and herbicides, such as trifluralin, (dinitroanilines), pharmaceuticals, dielectrics and insecticides. One of 3 main pollutants identified in an environmental contamination near Vicenza in northeastern Italy in 1977. Ground water concentrations ranged from 0.05 to 90 ug/l. 4-chlorobenzotrifluoride (PCBTF) is phytotoxic towards corn-root and potato disk cultures and inhibits root growth by disrupting the uptake of sulfate (trifluralin, on the other hand, inhibits plant growth by disrupting both nuclear and cell division and the uptake of essential nutrients. NTP Technical Report No. 14, NIH Publication 92-3133, July 1992 Study Scientists: C.W. Jameson and Jinhua Yuan

SYNONYMS

C7-H4-Cl-F3, ClC6H4CF3, "toluene, p-chloro-alpha, alpha, alpha-trifluoro-", "toluene, p-chloro-alpha, alpha, alpha-trifluoro-", "benzene, 1-chloro-4-(trifluoromethyl)-", "benzene, 1-chloro-4-(trifluoromethyl)-", "p-chlorobenzotrifluoride, p-chlorobenzotrifluoride, (p-chlorophenyl)trifluoromethane, p-chlorotrifluoromethylbenzene, p-chlorotrifluoromethylbenzene, 1-chloro-4-(trifluoromethyl)benzene, 1-chloro-4-(trifluoromethyl)benzene, p-(trifluoromethyl)chlorobenzene, p-(trifluoromethyl)chlorobenzene, "alpha, alpha, alpha, trifluoro-4-chlorotoluene", "alpha, alpha, alpha, trifluoro-4-chlorotoluene", "p-trifluoromethylphenyl chloride", "p-trifluoromethylphenyl chloride", "Oxsol 100", PCBTF, CTFT

Section 2 - HAZARDS IDENTIFICATION

CANADIAN WHMIS SYMBOLS

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EMERGENCY OVERVIEW

RISK

Limited evidence of a carcinogenic effect.

Irritating to eyes, respiratory system and skin.

Flammable.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

■ Rats treated daily by gavage for 28 days with up to 1000 mg 4-chlorobenzotrifluoride (PCBTF)/kg showed no clinical signs other than salivation. There were dose-dependent increases in blood cholesterol and triglycerides in males, suggestive of alterations in lipid metabolism. Female rats showed a small dose-dependent increase in serum lactate dehydrogenase. Hyaline droplet necrosis, a marked increase in relative kidney weight and lipid vacuoles in the adrenal cortex, were found in the male group receiving 1000 mg/kg. Both female and male rats showed an increase in relative liver weights.

EYE

■ This material can cause eye irritation and damage in some persons.

SKIN

■ This material can cause inflammation of the skin on contact in some persons.

■ The material may accentuate any pre-existing dermatitis condition.

■ Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

■ Open cuts, abraded or irritated skin should not be exposed to this material.

■ Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

■ The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

■ Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

■ Inhalation hazard is increased at higher temperatures.

■ Inhalation of quantities of liquid mist may be extremely hazardous, even lethal due to spasm, extreme irritation of larynx and bronchi, chemical pneumonitis and pulmonary edema.

■ Inhalation of high concentrations of gas/vapor causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

CHRONIC HEALTH EFFECTS

■ Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

4-Chlorobenzotrifluoride (PCBTF) has structural similarities with 4-chlorotrichlorotoluene, a carcinogen in mice, and to trifluralin (N,N-dipropyl-2,6-dinitro-4-trifluoromethylaniline), a rodent carcinogen.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARD RATINGS

4-Chlorobenzotrifluoride

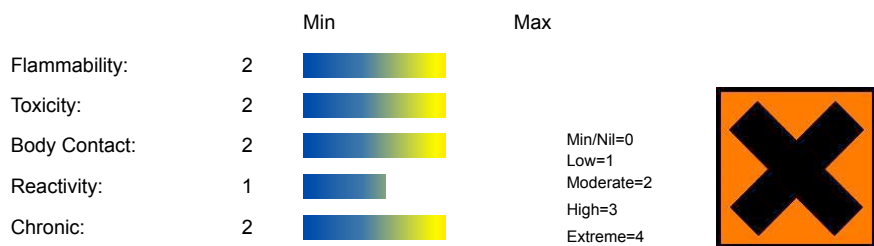
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