

化 学 品 安 全 技 术 说 明 书

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MSDS标题

P-(P-CHLOROPHENOXY)ANILINE MSDS报告

产品标题

4-(4-氯苯氧基)苯胺

CAS号

101-79-1

化学品及企业标识

PRODUCT NAME

P-(P-CHLOROPHENOXY)ANILINE

NFPA

Flammability	1
Toxicity	2
Body Contact	2
Reactivity	1
Chronic	2

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PRODUCT USE

Intermediate. Medicine

SYNOMYMS

C12-H10-Cl-N-O, C12-H10-Cl-N-O, "benzenamine, 4-(4-chlorophenoxy)-", "benzenamine, 4-(4-chlorophenoxy)-", "aniline, p-(p-chlorophenoxy)-", "aniline, p-(p-chlorophenoxy)-", 4-(4-chlorophenoxy)aniline, 4-(4-chlorophenoxy)aniline, 4-(4-chlorophenoxy)benzenamine, 4-(4-chlorophenoxy)benzenamine, "4-amino-4'-chlorodiphenyl ether", "4-amino-4'-chlorodiphenyl ether", "4-chloro-4'-aminodiphenyl ether", "4-chloro-4'-aminodiphenyl ether"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

May cause SENSITIZATION by skin contact.

Limited evidence of a carcinogenic effect.

Harmful by inhalation, in contact with skin and if swallowed.

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

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. The substance and/or its metabolites may bind to hemoglobin inhibiting normal uptake of oxygen. This condition, known as "methemoglobinemia", is a form of oxygen starvation (anoxia). Symptoms include cyanosis (a bluish discoloration skin and mucous membranes) and breathing difficulties. Symptoms may not be evident until several hours after exposure. At about 15% concentration of blood methemoglobin there is observable cyanosis of the lips, nose and earlobes. Symptoms may be absent although euphoria, flushed face and headache are commonly experienced. At 25-40%, cyanosis is marked but little disability occurs other than that produced on physical exertion. At 40-60%, symptoms include weakness, dizziness, lightheadedness, increasingly severe headache, ataxia, rapid shallow respiration, drowsiness, nausea, vomiting, confusion, lethargy and stupor. Above 60% symptoms include dyspnea, respiratory depression, tachycardia or bradycardia, and convulsions. Levels exceeding 70% may be fatal. Chlorphenoxy compounds irritate the digestive system and cause nausea and vomiting, chest pain, and diarrhea. Taking large doses can result in mineral imbalance, temperature changes, hyperventilation, low blood pressure, dilated blood vessels, damage to the heart and liver with death of white blood cells, and convulsions. Most salts and esters of 2,4- D exhibit similar effects, although the free acid is more toxic. Massive doses can

cause ventricular fibrillation followed by death. If death is delayed, there may be a sluggishness followed by spastic changes in muscles and incoordination. Severe cases cause apathy, weakness in the legs, regular muscle spasms and coma. Subacute poisonings cause severe nosebleeds, bleeding from the mouth and irritation of the eye and nose. Clinically, poisonings are uncommon, although muscle weakness and nervous symptoms in the extremities are sometimes reported. The substances are not metabolized and are excreted only slowly from the body, in the urine.

EYE

There is some evidence to suggest that this material can cause eye irritation and damage in some persons. Corneal injury resulting from 2,4-D exposure may be slow to heal.

SKIN

Skin contact with the material may be harmful; systemic effects may result following absorption. The material is not thought to be a skin irritant (as classified using animal models). Abrasive damage however, may result from prolonged exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. 2,4-D and its derivatives can all be absorbed through the skin of humans. Severe peripheral neuropathy has followed causing limb paralysis and loss of sensation. Fatigue, nausea, vomiting, anorexia, diarrhea and swelling occur, followed by "pins and needles", pain and paralysis. Disability is long-lasting. 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

Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful. The material is not thought to produce respiratory irritation (as classified using animal models). Nevertheless inhalation of dusts, or fume, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. Inhalation of chlorophenoxy dusts or mists may result in sore throat, burning sensations in the throat and chest, cough, tears, inflamed nose, dizziness and incoordination, as a result of absorption from the lungs.

CHRONIC HEALTH EFFECTS

There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the

material is more likely to cause a sensitization reaction in some persons compared to the general population. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Exposure to the material may result in a possible risk of irreversible effects. The material may produce mutagenic effects in man. This concern is raised, generally, on the basis of appropriate studies with similar materials using mammalian somatic cells *in vivo*. Such findings are often supported by positive results from *in vitro* mutagenicity studies. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray. Chlorophenoxy herbicides cause an increased risk of cancers of soft tissue, lymph and bronchi. Inflammation of skin can result from long term contact. Chronic exposure to 2,4- D can cause nausea, liver changes, skin eruptions, irritation of the airways and eyes, as well as nervous changes. People with chronic health conditions or who have endocrinological or immune disorders should not be exposed to herbicides. Prolonged contact with chlorinated diphenyl ethers may cause skin irritation, weight loss and liver injury. Repeated absorption has produced liver damage in animals. Most arylamines are powerful poisons to the blood-making system. High chronic doses cause congestion of the spleen and tumor formation. Male rats and male and female mice fed *p*-(*p*-chlorophenoxy)aniline for 18 months at 2 dose levels developed tumours. There was no consistent dose relationship.