西亚试剂® Xiya Reagent 说明书

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化 学 品 安 全 技 术 说 明 书

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MSDS标题

ZINC NAPHTHENATE MSDS报告

产品标题

萘酸锌;环烷酸锌盐;萘酸鋅

CAS号

12001-85-3

化学品及企业标识

PRODUCT NAME

ZINC NAPHTHENATE

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

Drier. Drier and wetting agent in paints, varnishes, resins; insecticide, fungicide, and mildew preventive; wood preservative, waterproofing textiles, insulating materials. Used as catalyst in urethane foams.

SYNONYMS

C14-H10-O4-Zn, Zn(C6H5COO)2, "naphthenic acid, zinc salt", "zinc drier", "paint drier"

CANADIAN WHMIS SYMBOLS

None

EMERGENCY OVERVIEW

RISK

Harmful to aquatic organisms.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual. Soluble zinc salts produces irritation and corrosion of the alimentary tract with pain, and vomiting. Death can occur due to insufficiency of food intake due to severe narrowing of the esophagus and pylorus. The LD50s of naphthenic acids (a mixture of isomers of dimethylcyclohexanecarboxylic acid) in mice and rats were 1770 and 1750 mg/kg, respectively. Cumulative properties of naphthenic acids were mild. The oral LD50 in male mice of commercial sodium salts of naphthenic acids was found to be 3550 mg/kg body weight. Symptoms included central nervous system depression, convulsions and respiratory arrest. For rats the oral LD50 value for commercial naphthenic acids was 3000 mg/kg, while for mixtures of dicyclohexane (a specific naphthenic acid), the oral LD50 was 1750 mg/kg. Exposure of Wistar rats to single or repeated oral doses of naphthenic acids produced a number of treatment-related effects, particularly in the highest dose groups. Marked reduction in food consumption was observed immediately following dosing in the high-dose group of the acute toxicity study. A similar decrease in food consumption was observed in the subchronic study, but in both cases the effect was short-lived. Appetite suppression was probably not due to direct irritation of the gastrointestinal lining, since repeated exposure did not sustain the effect in the subchronic study. In addition, there was no histopathological evidence of gastrointestinal irritation in either study. The mechanism of toxicant-induced anorexia has yet to be determined. The results of the acute toxicity test suggested exposure to naphthenic acids at levels of 300 mg/kg in rats had both cardiovascular and hepatic effects. A single oral dose of 300 mg/kg produced significant cerebral hemorrhage in male rats. Vasoactive effects of naphthenic acids were also noted study by following intramuscular injection with 150 mg/kg cyclopentane naphthenic acid for 10 days; increased vascular permeability of cerebral capillaries was seen. Such an effect could be linked

to the cerebral hemorrhaging or periarteriolar necrosis/fibrosis in the heart that was apparent following acute exposure to naphthenic acids. It is unclear why the cerebral hemorrhage was more prevalent in male than in female rats. It is unknown whether the effects of acute naphthenic acid dosing on cardiac tissue (periarteriolar necrosis/fibrosis) are attributable to parent naphthenic acids or their metabolites. The clearest demonstration of a target organ in the acute toxicity test was the liver, where the inflammation of tissues around the bile duct (pericholangitis) was consistent between sexes and highly dose-dependent.

EYE

Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, 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. 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

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. 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.

CHRONIC HEALTH EFFECTS

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. 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. In dogs and rabbits that received naphthenic acids (10 mg/kg, intravenously, and 5-15 mg/kg, intramuscularly, respectively), a notable effect was observed on haemopoiesis of both the red and white cells and a greater effect was observed on platelet formation. In a one generation reproduction study naphthenic acid in a carrier oil was administered dermally

to 12 proven male New Zealand White rabbits at 2 ml/animal for 6 hrs, 5 days each week over 10, weeks and observed for an additional 12 week post-exposure period. There were no significant differences between treated and control animals in the following: survival, body weights, testes weights, numbers of animals achieving 1 or 2 viable litters or pregnancies, numbers of implantations, pre- or post-implantation losses, numbers of viable fetuses. There were no signs of toxicity either systemically or at the site of application and no macroscopic or microscopic pathological findings. Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in "metal fume fever"; also known as "brass chills", an industrial disease of short duration. [I.L.O] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated areas.