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

LEAD NAPHTHENATE MSDS报告

产品标题

萘酸铅;石油酸铅;酞菁铅

CAS号

61790-14-5

化学品及企业标识

PRODUCT NAME

LEAD NAPHTHENATE

NFPA

Flammability	1
Toxicity	2
Body Contact	0
Reactivity	1
Chronic	3

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

PRODUCT USE

As a drier in paints; lubricating oil additive. Regeant

SYNONYMS

"naphthenic acid, lead salt", "cyclohexanecarboxylic acid, lead salt"

CANADIAN WHMIS SYMBOLS

None

EMERGENCY OVERVIEW

RISK

Danger of cumulative effects.
May cause harm to the unborn child.
Possible risk of impaired fertility.
Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
Harmful by inhalation and if swallowed.
Very 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 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 produce transient discomfort characterized by tearing or conjunctival redness (as with windburn).

SKIN

Skin contact is not thought to produce harmful health effects (as classified using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. 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 is not thought to produce respiratory irritation (as classified using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Lead fume is toxic and acts as a cumulative poison. Regular blood testing should be considered for workers who are regularly exposed.

CHRONIC HEALTH EFFECTS

Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. This has been demonstrated via

both short- and long-term experimentation. Ample evidence exists that developmental disorders are directlycaused by human exposure to the material. Ample evidence from experiments exists that there is a suspicionthis material directly reduces fertility. 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. Lead, in large amounts, can affect the blood, nervous system, heart, glands, immune system and digestive system. Anemia may occur. If untreated muscles may become paralyzed, and there may be brain damage. Symptoms include joint and muscle pain, weakness in the back of the forearm and wrist and in the shin muscles, headaches, dizziness, abdominal pain, diarrhea or constipation, nausea, vomiting, blue line on gums, sleep disturbance and a metallic taste in the mouth. The pressure in the brain may increase with high doses, and cause brain damage, coma, and death. Early signs include loss of appetite and weight, constipation, tiredness and irritability, headache, weakness. Later there may be vomiting, nervousness, and muscle pains in the arms and legs. Serious cases cause severe vomiting, inco-ordination, stupor, permanent eye damage, high blood pressure, multiple nerve disorders of the head resulting in paralysis and loss of reflexes, delirium, convulsions and coma. The kidneys may become irreversibly damaged, and the nervous system may become affected causing mental retardation, cerebral palsy, and jerks and seizures. Lead can cross the placenta, and cause miscarriage, stillbirths and birth defects. Exposure before birth can cause mental retardation, behavioral disorders and infant death. Lead can also cause reduced sex drive, impotence, sterility and damage the sperm of males, increasing the potential for birth defects. Periods in women can also be affected. Lead can accumulate in the skeleton for a very long time.