

化 学 品 安 全 技 术 说 明 书

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MSDS标题

USF FILTRATION S87 SCALE SOLVENT MSDS报告

产品标题

N,N'-双(羧基甲基)甘氨酸三钠盐

CAS号

5064-31-3

化学品及企业标识

PRODUCT NAME

USF FILTRATION S87 SCALE SOLVENT

NFPA

| | |
|--------------|---|
| Flammability | 0 |
| Toxicity | 2 |
| Body Contact | 3 |
| Reactivity | 1 |
| Chronic | 2 |

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

PRODUCT USE

Used for scale removal from water systems.

SYNONYMS

"scale remover"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Harmful if swallowed.

Limited evidence of a carcinogenic effect.

Irritating to eyes, respiratory system and skin.

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 material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. There is strong evidence to suggest that this material can cause, if swallowed once, irreversible damage of organs.

EYE

This material can cause eye irritation and damage in some persons. The material can produce chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

This material can cause inflammation of the skin on contact in some persons. The material can produce chemical burns following direct contact with the 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. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. The material is not thought to produce adverse health effects following inhalation (as classified using animal models). Nevertheless, adverse effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Acute effects from inhalation of high vapor concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.

CHRONIC HEALTH EFFECTS

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. High levels of sodium nitrilotriacetate can cause cancer of the kidney and liver. Prolonged exposure causes changes in the excretory system, including blood, crystals or sugar in the urine and high blood sugar. Long term exposure to organophosphonate chelating agents may cause adverse effects. Rats fed on aminotri(methylenephosphonic acid) (ATMP), for up to 24 months, exhibited reduced body weight and changes in liver, spleen and kidney weights. No adverse histologic, haematologic, biochemical or urinological effects were seen. The "no-effect" level was 150 mg/kg/day. No significant teratogenic or

foetotoxic effects were observed in the off-spring of rats and mice exposed to the neutral sodium salt, by gavage. No maternal toxicity was observed at any level. No adverse treatment related effects or reproductive parameters and no pathological or histopathological lesions were observed in either parental animals or pups following dietary exposure of the solid active acid at various times in the mating and birth cycle for three generations. Rats fed on ethylenediamine(methylenephosphonic acid (EDTMP) (300 mg/kg daily for 10 weeks) before mating and up to the end of the mating period, showed reduced body weights, defects in dental enamel on the incisors and significantly reduced liver weights. In an ongoing study, several rats treated with EDTMP (50-333 mg/kg/day) died during the first twelve months and were seen to have osteosarcomas with metastases. Other adverse effects of EDTMP treatment included increased white blood cell counts in mice, anaemia and reduction in erythrocytes, haemoglobin, haematocrit, serum cholesterol, total serum protein and globulin, in rats. In a one-generation reproductive study the off-spring of rats, fed up to 3000 ppm DTPMPA (diethylenetriaminepentakis(methylenephosphonic acid)), showed no adverse effects although there was a slight decrease in birth weights.

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