

## 化 学 品 安 全 技 术 说 明 书

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### MSDS标题

ZINC CITRATE TRIHYDRATE MSDS报告

### 产品标题

柠檬酸锌二水合物

### CAS号

546-46-3

### 化学品及企业标识

## PRODUCT NAME

ZINC CITRATE TRIHYDRATE

## NFPA

Flammability	1
Toxicity	0
Body Contact	2
Reactivity	1
Chronic	0
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4	

## PRODUCT USE

In toothpaste and mouth washes. Regeant

## SYNONYMS

C12-H10-O14-Zn3, C6-H5-O7.3/2Zn, Zn3(C6H5O7)2, "citric acid, zinc salt(2:3)", "1, 2, 3-propanetricarboxylic acid, 2-hydroxy-, zinc salt (2:3)", "1, 2, 3-propanetricarboxylic acid, 2-hydroxy-, zinc salt (2:3)"

## CANADIAN WHMIS SYMBOLS

None

## EMERGENCY OVERVIEW

### RISK

### POTENTIAL HEALTH EFFECTS

### ACUTE HEALTH EFFECTS

#### SWALLOWED

The material has NOT been classified as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. 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, unintentional ingestion is not thought to be cause for concern. 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.

#### 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. Solution of material in moisture on the skin, or perspiration, may increase

irritant effects.

## **INHALED**

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. 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. Not normally a hazard due to non-volatile nature of product.

## **CHRONIC HEALTH EFFECTS**

Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless exposure by all routes should be minimized as a matter of course. 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. 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.