

化 学 品 安 全 技 术 说 明 书

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**MSDS标题**

VANADYL ACETYLACETONATE MSDS报告

**产品标题**

氧化钒乙酰丙酮;乙酰丙酮氧钒;双(乙酰丙酮)氧化钒

**CAS号**

3153-26-2

**化学品及企业标识**

**PRODUCT NAME**

VANADYL ACETYLACETONATE

**NFPA**

Flammability	1
Toxicity	2
Body Contact	1
Reactivity	1
Chronic	2

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

**PRODUCT USE**

Homogeneous catalyst.

## **SYNONYMS**

C10-H14-O5-V, [CH3COCH=C(O-)CH3]2VO, "vanadiumoxy acetylacetonate", "2, 4-pentanedione, vanadyl derivative", "2, 4-pentanedione, vanadyl derivative"

## **CANADIAN WHMIS SYMBOLS**

## **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. Vanadium poisoning causes immediate distress with nose bleeds, severe diarrhea, paralysis of the legs, breathing difficulties, convulsions and death. The liver and kidneys may degenerate, and sometimes there can be bleeding from the lung and adrenal cortex. Vanadium is about as toxic as arsenic. At sufficiently high doses the material may be neurotoxic (i.e. poisonous to the nervous system).

#### **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. 2,4-Pentadione may produce contact dermatitis or urticaria. Prolonged contact with 2,4-pentanedione may produce severe discomfort or pain, redness and swelling and corrosion, ulceration and development of fissures. The inflamed area may show bleeding. 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 may produce health damage\*. 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. Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. 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. At sufficiently high doses the material may be neurotoxic(i.e. poisonous to the nervous system). The inhalation of vanadium dust can cause irritation of the respiratory tract and eyes, with cough, wheezing, bronchitis, phlegm with blood stains, and blackening of the tongue. Internal symptoms may include loss of appetite, anemia, nausea, headache, sleep difficulties, nervousness, dizziness, kidney damage, tremor, psychic disturbances and blindness.

## **CHRONIC HEALTH EFFECTS**

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. There is limited evidence that, skin contact with this product is more likely to cause a sensitization reaction in some persons compared to the general population. 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. Vanadium is an essential trace element. Poisoning can cause stomach upset, emphysema and wheezing. Repeated overexposure to 200 ppm 2,4-pentanedione vapor may result in inflammation of the nasal mucosa. Higher concentrations may produce central nervous system effects, and immune system and bone marrow deficits. Recurrent exposure to high concentrations of the 2,4-pentadione vapor (~650 ppm) produces lethal degenerative lesions in the central nervous system and thymus. Exposure in pregnancy can damage to fetus. In use the substance may decompose to produce 2,4-pentanedione a powerful neurotoxin.