

## 化 学 品 安 全 技 术 说 明 书

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### MSDS标题

JOHNSON MATTHEY KATALCO 11-4, 11-4M MSDS报告

### 产品标题

氧化亚镍;一氧化镍

### CAS号

1313-99-1

### 化学品及企业标识

## PRODUCT NAME

JOHNSON MATTHEY KATALCO 11-4, 11-4M

## NFPA

Flammability	0
Toxicity	2
Body Contact	2
Reactivity	0
Chronic	4

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

## PRODUCT USE

Methanation catalyst.

# **CANADIAN WHMIS SYMBOLS**

## **EMERGENCY OVERVIEW**

### **RISK**

May cause CANCER.

May cause SENSITIZATION by skin contact.

May cause long- term adverse effects in the aquatic environment.

### **POTENTIAL HEALTH EFFECTS**

#### **ACUTE HEALTH EFFECTS**

##### **SWALLOWED**

Accidental ingestion of the material may be damaging to the health of the individual. Nickel is not well absorbed orally. Excretion in the urine is complete after about 4-5 days. If injected, nickel is rapidly distributed to various organs. Nickel salts cause vomiting, following ingestion as a result of the irritant effects. Absorption is generally poor and systemic poisoning is rare. Systemic effects include increased blood sugar levels, capillary damage, kidney damage, heart damage and central nervous system depression.

##### **EYE**

There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

##### **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. 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\*. Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. 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. Regular exposure to nickel fume, as

the oxide, may result in "metal fume fever" a sometimes debilitating upper respiratory tract condition resembling influenza. Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in closed or poorly ventilated areas. Pulmonary edema, pulmonary fibrosis and asthma has been reported in welders using nickel alloys; level of exposure are generally not available and case reports are often confounded by mixed exposures to other agents. Inhalation of freshly formed metal oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in "metal fume fever". Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalized feeling of malaise. Mild to severe headache, nausea, occasional vomiting, fever or chills, exaggerated mental activity, profuse sweating, diarrhea, excessive urination and prostration may also occur. Tolerance to the fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours following removal from exposure.

## CHRONIC HEALTH EFFECTS

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. There is some evidence that inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population. There is sufficient evidence to suggest that this material directly causes cancer in humans. Nickel dusts, fumes and salts are potent contact allergens and sensitizers producing a dermatitis known as "nickel" rash. In the absence of properly designed ventilation systems or where respiratory protective devices are inadequate, up to 10% of exposed workers are expected to be symptomatic. Nickel causes a skin sensitization which may produce a chronic eczema. At first an itch appears followed one week later by a red skin eruption with ulcers which discharge and become crusted. In the chronic stages, pigmented or depigmented plaques may be formed. Recovery from the skin inflammation may take weeks. Nickel dusts and some of its compounds may cause cancer; nickel workers show an increased risk of developing cancers of the lung and nasal cavity.