

## 化 学 品 安 全 技 术 说 明 书

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### MSDS标题

HYJET4A-55GAL MSDS报告

### 产品标题

磷酸正丁酯;三丁基磷酸盐

### CAS号

126-73-8

### 化学品及企业标识

## PRODUCT NAME

HYJET4A-55GAL

## NFPA

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

## PRODUCT USE

Hydraulic fluid.

## **SYNONYMS**

"HYJET IV-A PLUS"

## **CANADIAN WHMIS SYMBOLS**

## **EMERGENCY OVERVIEW**

### **RISK**

Harmful if swallowed.

Limited evidence of a carcinogenic effect.

Irritating to eyes and skin.

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. Ingestion may produce nausea, vomiting, depressed appetite, abdominal cramps, and diarrhea. Adverse effects associated with the administration of central nervous system stimulants include labored breathing, coughing, narrowed airways, chest tightness, and throat spasm. Muscular involvement may produce contraction small localized muscle fibers (visible through the skin) or seizures. Headache, dizziness, fever and confusion may also result. Other symptoms may include nausea, vomiting, diarrhea and difficulty in urination, alterations in blood pressure and irregular heart beat.

#### **EYE**

There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain. There may be damage to the cornea. Unless treatment is prompt and adequate there may be permanent loss of vision. Conjunctivitis can occur following repeated exposure. Direct eye contact can produce tears, eyelid twitches, pupil contraction, loss of focus, and blurred or dimmed vision. Dilation of the pupils occasionally occurs.

#### **SKIN**

This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Skin

contact with the material may damage the health of the individual; systemic effects may result following absorption. 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. There may be sweating and muscle twitches at site of contact. Reaction may be delayed by hours.

## **INHALED**

Inhalation may produce health damage\*. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Inhalation hazard is increased at higher temperatures. Poisoning due to cholinesterase inhibitors causes symptoms such as increased blood flow to the nose, watery discharge, chest discomfort, shortness of breath and wheezing. Other symptoms include increased production of tears, nausea and vomiting, diarrhea, stomach pain, involuntary passing of urine and stools, chest pain, breathing difficulty, low blood pressure, irregular heartbeat, loss of reflexes, twitching, visual disturbances, altered pupil size, convulsions, lung congestion, coma and heart failure. Nervous system effects include inco-ordination, slurred speech, tremors of the tongue and eyelids, and paralysis of the limbs and muscles of breathing, which can cause death, although death is also seen due to cardiac arrest.

## **CHRONIC HEALTH EFFECTS**

There has been 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. Repeated or prolonged exposures to cholinesterase inhibitors produce symptoms similar to acute effects. In addition workers exposed repeatedly to these substances may exhibit impaired memory and loss of concentration, severe depression and acute psychosis, irritability, confusion, apathy, emotional lability, speech difficulties, headache, spatial disorientation, delayed reaction times, sleepwalking, drowsiness or insomnia. An influenza-like condition with nausea, weakness, anorexia and malaise has been described. There is a growing body of evidence from epidemiological studies and from experimental laboratory studies that short-term exposure to some cholinesterase-inhibiting insecticides may produce behavioral or neuro-chemical changes lasting for days or months, presumably outlasting the cholinesterase inhibition. Although the number of adverse effects following humans poisonings subside, there are still effects in some workers months after cholinesterase activity returns to normal. These long-lasting effects include blurred vision, headache, weakness, and anorexia. The neurochemistry of animals exposed to chlorpyrifos or fenthion is reported to be altered permanently after a single exposure. These effects may be more severe in developing animals where both acetyl- and butyrylcholinesterase may play an integral part in the development of the nervous system. Padilla S., The

Neurotoxicity of Cholinesterase-Inhibiting Insecticides: Past and Present Evidence Demonstrating Persistent Effects. *Inhalation Toxicology* 7:903-907, 1995. Epidemiological studies completed in 1977 and 1985 of current and former workers at a plant, where natural and synthetic triaryl phosphate esters were manufactured, did not find any unusual patterns of mortality or disease. In 30-day feeding trials with triphenyl phosphate (TPP), dose rate 750 mg/kg, both male and female rats showed hepatic enlargement and discoloured livers [Chemplex]. Signs and symptoms of cholinesterase inhibition should be anticipated even if these are not readily apparent in exposed individuals. In a study involving 32 men employed for 2-10 years (average 7.4 years) in the manufacture of TPP, there was no evidence of adverse clinical effects (dermatitis, eye and respiratory tract irritation, unexplained illness, neurological disease) at time- weighted average exposures of 3.5 mg/m<sup>3</sup>. A slight but statistically significant reduction in erythrocyte cholinesterase activity was evident in six workers. Plasma cholinesterase was within the normal range. TPP does not appear to accumulate in human tissues. Studies with cultured human cells show in vitro cytotoxicity and some evidence of in vitro immunotoxicity. The congener tricresyl phosphate, produces dermatological allergy in humans and it is thought that TPP might also produce similar symptoms; however, no rigorous data has been published, to date, implicating TPP exposure with immunosuppression, or allergic or sensitisation reactions.