

## 化 学 品 安 全 技 术 说 明 书

填表时间 2019-12-31

打印时间 2026-01-03

### MSDS标题

JASOL PROTREAT 526 MSDS报告

### 产品标题

亚硝酸钠标准溶液;食用亚硝酸钠

### CAS号

7632-00-0

### 化学品及企业标识

## PRODUCT NAME

JASOL PROTREAT 526

## NFPA

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

## PRODUCT USE

Industrial water treatment compound.

# SYNONYMS

Protreat526

## CANADIAN WHMIS SYMBOLS

## EMERGENCY OVERVIEW

### RISK

Harmful if swallowed.

Toxic by inhalation.

Danger of cumulative effects.

Toxic to aquatic organisms.

## 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. There is some evidence to suggest that this material can cause, if swallowed once, irreversible damage of organs. In humans, inorganic nitrites produce smooth muscle relaxation, methaemoglobinaemia (MHG) and cyanosis. Fatal poisonings in infants, resulting from ingestion of nitrates in water or spinach, have been reported. The primary effect of nitrite intoxication in animals is MHG whilst secondary effects include vasodilation, relaxation of smooth muscle and lowering of blood pressure. Other nitrite-induced toxic effects include abdominal pain, diarrhoea, atrophied intestinal villi and apoptotic cell death in the intestinal crypts. When sodium nitrite was administered in drinking water for 6 weeks (0.06-1%), mice showed a slight degeneration and spotty necrosis of hepatocytes and haemosiderin deposition in the liver, spleen and lymph nodes, indicating haemolysis. At 2%, mice died within 3 weeks. In rats, subject to the same treatment regime, abnormal blood and spleen colours, due to MHG, were seen in 0.5% and 1.0% treatment groups. Hepatic microsomal lipoperoxidation (as measured by malondialdehyde formation) was increased in male rats given 0.2% sodium nitrite in drinking water. Liver lysosomal enzymes (acid phosphatase and cathepsin) and superoxide dismutase activities were also increased. This data suggests that the nitrite stimulates generation of superoxide radicals in the liver causing damage to cellular and subcellular membranes. Decreased plasma vitamin E and greater reduced glutathione-per erythrocyte were also reported in male rats receiving sodium nitrite in drinking water. Borate poisoning causes nausea, vomiting, diarrhea and pain in the upper abdomen. Often persistent vomiting occurs, and there may be blood in the feces. There may also be weakness, lethargy, headache, restlessness, tremors and convulsions. All borates cause similar

effects; the lethal dose is over 30 grams. Poisoning initially stimulates the central nervous system before causing depression, as well as disturbing the digestive system, causing skin eruptions, and damage to the liver and kidneys. Borate is mostly eliminated from the body via the kidneys.

## **EYE**

Although the liquid is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterized by tearing or conjunctival redness (as with windburn).

## **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.

## **INHALED**

Not normally a hazard due to non-volatile nature of product. The material is not thought to produce either adverse health effects or irritation of the respiratory tract 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.

## **CHRONIC HEALTH EFFECTS**

Repeated or long-term occupational exposure is likely to 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. There is some evidence to provide a presumption that human exposure to the material may result in impaired fertility on the basis of: some evidence in animal studies of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary non-specific consequence of other toxic effects. Borate can accumulate in the testes and deplete germ cells and cause withering of the testicles, according to animal testing. Hair loss, skin inflammation, stomach ulcer and anemia can all occur. Repeated swallowing or inhalation irritates the stomach, causes a loss of appetite, disturbed digestion, nausea and vomiting, red rash, dry skin and mucous membranes, reddening of the tongue, cracking of the lips, inflamed

conjunctiva, swelling of the eyelids and kidney injury. Prolonged ingestion causes effects to the reproductive system in both males and females. High levels of molybdenum can cause joint problems in the hands and feet with pain and lameness. Molybdenum compounds can also cause liver changes with elevated levels of enzymes and cause over-activity of the thyroid gland. A generalized feeling of unwellness can occur, with tiredness, weakness, diarrhea, loss of appetite and weight. Molybdenum has been associated with cancers of the airways, but on the other hand, a low intake of molybdenum may cause an increased risk of developing esophageal cancer. Sensitization may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

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