

# nitric acid

## What is Nitric Acid?

Nitric acid is a colorless to light yellow or brownish yellow liquid acid that is very harmful to body tissues.

## How is Nitric Acid used?

Nitric acid is used in the production of agricultural fertilizers and specialty metals. It is also used in the making of products such as dyes, fungicides and fibers.

## What are the potential hazards?

Nitric acid can be corrosive to all tissues, including skin, eyes, nose, mucous membranes, and respiratory and gastrointestinal tracts. The eyes are particularly sensitive and blindness can result from contact.

The severity of the health effects depends on how strong the solution is (concentration), how long the contact lasts (duration) and, in the case of skin burns, how extensive the area of contact is. Mild exposure to nitric acid can cause irritation, while severe and fatal burns can occur with extensive skin exposure. Swallowing nitric acid can cause burns to the mouth and throat and damage to the gastrointestinal tract. Inhaling nitric acid can cause a range of effects, ranging from tickling in the nose and throat, coughing, and sneezing, to bronchospasm, or even pulmonary edema (fluid in the lungs). The effects of inhaling nitric acid may be delayed up to 30 hours after being exposed.

## Is Nitric Acid flammable or explosive?

Nitric acid is not flammable or explosive. However, it can react with many metals to generate flammable and explosive hydrogen gas.

## What are the Emergency Response procedures?

In the event of a spill or accidental discharge, the fire department will isolate the area of the spill and will try to prevent further leakage. The spill itself can be contained with dry earth, sand, or other non-flammable material. Limestone will be slowly added to the spill to neutralize the acid.

## What should you do if you are exposed to Nitric Acid?

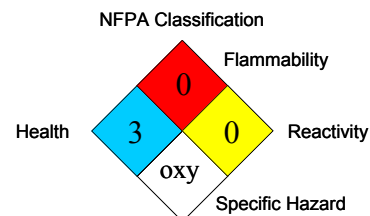
### For eye contact:

- Check for and remove contact lenses. **IMMEDIATELY** flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

### For skin contact:

- Immediately flush skin with water while removing contaminated clothing and shoes. Use warm water if available and continue flushing for at least 15 minutes, but preferably 30 minutes. Get medical attention if irritation persists. Contaminated clothing should be discarded in a manner that limits further exposure.

# fact sheet



### **For minor inhalation:**

- Allow the affected individual to rest in a well-ventilated area. Watch for airway obstruction. Give oxygen if available. Seek medical attention.

### **For severe inhalation:**

- Use proper respiratory protection to evacuate affected individuals to a safe area as soon as possible. Loosen tight clothing around the person's neck and waist. If breathing is difficult administer oxygen. If the person is not breathing, perform artificial respiration and obtain immediate medical attention.

### **For ingestion:**

- Do not induce vomiting. Careful removal of the substance from the stomach by medical personnel is required. Call a physician or poison control center and seek immediate medical attention. If tolerated and if victim is conscious, give no more than 1 cup of milk or water to rinse the mouth and throat and dilute the stomach contents. No more than 8 ounces (1 cup) in adults and 4 ounces (1/2 cup) in children are recommended to minimize the risk of vomiting.

**Where** can I get more information? \_\_\_\_\_

For more information on this product, or other Agrium products, please call Agrium directly at (403) 225-7000.

Information can also be found at the following websites:

• **Agency for Toxic Substances and Disease Registry (ATSDR):**  
[www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)

• **Occupational Health and Safety Administration (OSHA):** [www.osha.gov](http://www.osha.gov)

• **Canadian Centre for Occupational Health and Safety:** [www.ccohs.ca](http://www.ccohs.ca)

**What** should you do in the event of a spill? \_\_\_\_\_

Follow any special instructions given over the radio, T.V., or by someone in authority.

If there is a fire or an explosion, stay away from the site. Follow standard, marked emergency routes or directions from police to travel to your destination. ■

## **Agrium**

13131 Lake Fraser Drive S.E.  
Calgary, Alberta  
T2Y 7E8

Telephone:  
(403) 225-7000

\_\_\_\_\_ [www.agrium.com](http://www.agrium.com)