



Better Chemistry.

MI-PHOS® Z-4000
2202011

Industrial applications

563 South Leonard Street
Waterbury, CT 06708

: 203-756-5521
203-756-9017

Emergency Phone Number

1 (800) 424-9300

If swallowed: Immediately call poison center or doctor.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Wash contaminated clothing before reuse.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).
 Specific treatment - refer to poison center or doctor for advice.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 In case of fire: Use water, foam, chemical extinguisher or carbon dioxide.
 Absorb spillage to prevent material damage.
 Store locked up.
 Store in corrosive resistant high density polyethylene container.
 Store in well ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local, regional, national, or international regulations.

Nitric Acid	Aqua Fortis	231-714-2	Approx 20%
Phosphoric Acid	-	7664-38-2	<25%
Zinc Oxide	Calamine	1314-13-2	<15%

Get medical attention immediately. Call a poison control center or physician. If suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If product vapor or mists cause respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use the mouth to mouth method if the victim inhaled the substance; give artificial respiration with aid of a pocket mask equipped with a one-way valve or other proper respiratory device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

Effects may be delayed. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of a spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects. May cause acute pulmonary edema, asphyxia, chemical pneumonitis and upper airway obstruction caused by edema. Depending on the conditions, the vapors of fumes of nitric acid may actually be a mixture of nitric acid and various oxides of nitrogen. The composition may vary with temperature, humidity, and contact with other organic materials.

Causes serious eye damage. Material is extremely destructive to the tissue and mucous membranes of the eye. Causes redness, pain, burning sensation and tearing. Direct contact with liquid may cause blindness or permanent eye damage.

Causes severe skin burns. Causes irritation, pain, redness and blisters. May cause deep penetrating ulcers of the skin. Concentrated Nitric Acid turns human skin yellow on contact.

May cause severe and permanent damage to the digestive tract. Causes severe burns to the gastrointestinal tract. May cause perforation of the digestive tract. May cause systemic effects. Causes severe mouth, throat, and abdominal pain upon ingestion.

Will not burn or support combustion. Use extinguishing media appropriate for surrounding fire, such as water spray, dry chemical, foam or carbon dioxide.

Closed containers of Nitric Acid may explode (due to pressure build-up) when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Hazardous decomposition products include nitrogen oxides, ammonia and amines. Symptoms may not be immediately apparent. Obtain medical attention.

Fire fighters should enter area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

Wear appropriate chemical protection equipment such as gloves, face-shield, goggles and suitable body protection to prevent contamination of skin, eyes and personal clothing.

If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

Use ventilation sufficient to keep personal exposure below the OSHA Permissible Exposure Limits (PEL) and or the ACGIH Threshold Limit Value (TLV) Time Weighted Average (TWA) exposure limits.

Do not get in eyes, or on skin, or on clothing.

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Wear rubber protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.

Keep container tightly closed.

Keep only in original container .

Store in well ventilated place. Keep container tightly closed.

Store locked up and away from incompatible chemicals.

Container that have been opened must be carefully resealed and kept upright to prevent leakage.

Nitric Acid	ACGIH	2 ppm	4 ppm
Phosphoric Acid	ACGIH	1 mg/m3	3 mg/m3
Zinc Oxide	ACGIH	10 mg/m3	-

Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Acid resistant rubber.

Wear chemical safety goggles with face shield.

Wear chemical resistant boots.

Wear chemical resistant clothing.

Light Amber

Acrid pungent

N/A

4-7

<32 °F

212-275 °F

N/A

<1 (Butyl Acetate = 1)

N/A

N/A

N/A

>1 (Air=1)

1.62

Complete in water

N/A

N/A

N/A

N/A

Stable under recommended storage conditions. Decomposes in the presence of air, light or organic matter. Yellow/brown color is due to the release of nitrogen dioxide upon exposure to light.

Nitric Acid -LD50->/= 90 mg/kg (rat)

Phosphoric Acid-LD50-(Rat-female)-1.7 mL/100 g body weight

Zinc Oxide-LD50(mouse)-7950 mg/kg

Nitric Acid-LC50-30 min,-260 mg/m³(rat), LD50, 4 h-1302 mg/m³ (rat);LD50, 4 h-67 ppm NO₂ (rat)

Zinc Oxide-LC50(mouse)-2500 mg/m³

Severe irritation or burns to skin, eyes and respiratory system

Severe irritation or burns to skin, eyes and respiratory system

Not listed by IARC, NTP, OSHA, ACGIH

Eyes, Skin, Inhalation, Ingestion

No data available

low

No data available

Dispose of in accordance with local, state and federal regulations.

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CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(CONTAINS NITRIC ACID),

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