

# **Material Safety Data Sheet**

### Better Chemistry. Better Business.

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### **SECTION I - PRODUCT IDENTIFICATION**

TRADE NAME: Phosphoric Acid 75%

CHEMICAL NAME: Phosphoric Acid
CHEMICAL FAMILY: Mineral Acid

PRODUCT CODE: 2971012

REVISION DATE: December 7, 2009

### **SECTION II - HAZARDOUS INGREDIENTS**

\*PHOSPHORIC ACID, 75%, CAS 7664-38-2, CLEAN WATER ACT SECTION 311 HAZARDOUS SUBSTANCES, CERCLA HAZARDOUS SUBSTANCES, SARA TITLE III SECTION 313 TOXIC CHEMICALS. OSHA AIR CONTAMINANTS, OSHA TABLE Z-1-A [REVOKED], DOT HAZARDOUS MATERIALS, DOT **HAZARDOUS** SUBSTANCES OTHER THAN RADIONUCLIDES RADIONUCLIDES, AND MASSACHUSETTS SUBSTANCE LIST, NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST. SPECIAL HEALTH HAZARD, PENNSYLVANIA HAZARDOUS SUBSTANCE LIST, ENVIRONMENTAL HAZARD, CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS, INGREDIENT MUST BE DISCLOSED AT CONCENTRATION OF 1%. EP: CERCLA RQ IS 5000 LB; EPCRA SECTION 313 DE MINIMIS CONCENTRATION IS 1.0%. ACGIH: TWA IS 1 MG/M3; STEL IS 3 MG/M3. OSHA TABLE Z-1: TWA IS 1 MG/M3. OSHA TABLE Z-1-A [REVOKED]: TWA IS 1 MG/M3; STEL IS 3 MG/M3.

\*THIS SUBSTANCE IS A CHEMICAL SUBJECT TO SARA TITLE III, SECTION 313 REPORTING REQUIREMENTS.

NO OTHER INGREDIENTS IN THIS MIXTURE ARE CONSIDERED TO BE HAZARDOUS ACCORDING TO ANY STATE OR FEDERAL REGULATIONS.

#### SECTION III - PHYSICAL DATA

BOILING POINT: 135 deg C (275 deg F)

VAPOR PRESSURE: N/A
SOLUBILITY IN WATER: 100%
APPEARANCE AND ODOR: Liquid

FREEZING POINT: 0 degrees F

VAPOR DENSITY: N/A PH: 2@ 10 GM/L

## **SECTION IV - FIRE AND EXPLOSION DATA**

FLASH POINT (F): N/A FLAMMABLE LIMITS: N/A

**EXTINGUISHING MEDIA:** Product is not combustible. Use water spray, fog, foam, carbon dioxide, dry chemicals or other agents appropriate for the materials in the fire. Firefighters exposed to fire, smoke, fumes, and or products of the combustion should wear full face self-contained breathing apparatus and impervious protective clothing gear such as gloves, hoods, suits and boots.

SPECIAL FIRE FIGHTING MEDIA: Evacuate non-essential people from the area of the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: May decompose and product toxic gas irritating to the respiratory tract and cause breathing difficulty and pulmonary edema.

### **SECTION V - HEALTH HAZARD DATA**

HMIS: HEALTH: 3

FIRE: 0

REACTIVITY: 1

EFFECTS OF OVEREXPOSURE: Phosphoric acid is an acid corrosive.

Exposure to eyes, throat and skin. Liquid or high concentration may cause serious skin burns and may result in severe burns to the eyes.

# ROUTES OF ENTRY AND EMERGENCY FIRST AID PROCEDURES:

**SKIN:** May produce serious chemical burns. Flush contaminated skin with water and wash with soap and water. Remove all contaminated clothing preferably while under a safety shower. Get medical aid immediately. Discard contaminated clothing and shoes.

EYE CONTACT: Corrosive to eyes and may cause corneal ulceration, conjunctivitis, and permanent damage or blindness. Immediately lush eyes with large amounts of water for 15 minutes. Hold eyelids away from eyes to assure through flushing of eyes. Get prompt medical aid. INGESTION: Causes damage to mucous membranes, digestive tract and may lead to ulcerations and secondary infection. Immediately give large amounts of water. Do not induce vomiting, but if vomiting occurs, give fluids again. Do not attempt to induce vomiting or give fluids to an unconscious person. Get prompt medical aid, or call the nearest poison control center.

**INHALATION:** Mist or fumes may cause respiration tract irritation, bronchitis, or even pulmonary edema if concentrated. Remove from contaminated atmosphere. If breathing has stopped, clear the victim's airway and perform artificial respiration. If victim is breathing, oxygen may be administered from a demand type or continuous flow inhalator, preferably with a physician's advice. Keep victim warm and at rest. Get medical aid promptly.

### SECTION VI - REACTIVITY DATA

INSTABILITY: Stable under normal conditions at atmospheric pressures and in normal use. Freezes at lower temperatures.

**INCOMPATIBILITY:** Phosphoric acid is a strong acid and a dehydrating agent. May spatter upon contact with water or with chemicals solvents containing water. Reacts violently with bases. Reacts with may metal producing heat and flammable hydrogen gas.

**DECOMPOSITION**: Heating to decomposition point gives off toxic fumes of phosphorus pent oxide.

POLYMERIZATION: Will not occur.

**CONDITIONS TO AVOID:** Phosphoric acid is a strong acid and a dehydrating agent. May spatter upon contact with water or with chemicals solvents containing water. Reacts violently with bases. Reacts with may metal producing heat and flammable hydrogen gas.

## SECTION VII - SPILL OR LEAK PROCEDURES

SPILL, LEAK OR RELEASE: In case of spill, wear protective clothing. Evacuate all non-essential people from the area. Soak up small spills with sand, dirt, or absorbent material. Neutralize with soda ash and scoop up and place in clean, dry lined steel containers and carefully label container for eventual disposal. Flush away residue with copious amounts of water.

LARGE SPILLS should be diked with dirt, san or other similar material to prevent flowing into streams or sewers. Pump spill into marked containers fir reclamation or disposal. Residue should be neutralized and flush with water as described above. Always notify authorities if spill can produce adverse side effects to area.

WASTE DISPOSAL: Waste disposal should be done in accordance with federal, state and local regulations. Incineration should be in equipment designed to handle oxides of phosphorus as combustion products. Submit waste material only to approved chemical disposal service companies.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION:** Use NIOSH approved equipment with full-face piece when airborne appropriate type equipment for given application.

VENTILATION: Provide ventilation to minimize exposure. Local exhaust ventilation preferred,

SPECIAL: N/A

**OTHER:** Remove contaminated clothing promptly and launder before reuse. Provide safety shower at any location where skin contact can occur. Wash contaminated skin promptly.

**PROTECTIVE GLOVES:** Wear appropriate impervious gloves and protective clothing to prevent skin contact. Wash contaminated skin promptly.

**EYE PROTECTION**: Wear chemical safety goggles to prevent eye contact. Have eye baths immediately available where contact can occur.

OTHER PROTECTIVE EQUIPMENT: Wear face shields and impervious aprons.

### **SECTION IX - SPECIAL PRECAUTIONS**

**HANDLING AND STORAGE**: Store away from heat and keep product away from alkalies. Storage tanks should be off approved materials for phosphoric acid and should be vented and diked. 316elc stainless steel is the preferred material for storage, process equipment and shipping containers. **OTHER PRECAUTIONS**: None

### **SECTION X - TRANSPORTATION REQUIREMENTS**

PROPER SHIPPING NAME: PHOSPHORIC ACID

HAZARD CLASS: 8 ID NUMBER: UN1805 DOT GUIDE: 154 PKG. GROUP: III

#### NOTICE

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