



COLUMBUS CHEMICAL INDUSTRIES INC.

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Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Phosphoric Acid, 85%

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code	Emergency Telephone Number
Columbus Chemical Industries	CHEMTREC 1 (800) 424-9300
N4335 Temkin Road	Telephone Number for Information
Columbus, Wisconsin 53925	1-920-623-2140
	Date Prepared
	07-22-2004
	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS #	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Phosphoric Acid***	7664-38-2	1 mg/m ³ TWA	1 mg/m ³ TWA	3 mg/m ³ STEL	>80%

*Subject to the reporting requirements of SARA Title III Section 313

**SYNONYMS: Orthophosphoric acid.

Section III - Physical/Chemical Characteristics

Boiling Point	213°C (415°F)	Specific Gravity (H ₂ O = 1) @ 25 °C/77°F	1.685
Vapor Pressure (mm Hg) @ 20°C/68°F	0.03 kPa	Melting Point	42°C (108°F)
Vapor Density (AIR = 1)	3.4	Evaporation Rate (Butyl Acetate = 1)	Non-volatile

Solubility in Water

Complete.

Appearance and Odor

Colorless, odorless liquid.

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Nonflammable		Not applicable	Not applicable
Extinguishing Media			

Water spray, dry chemical, carbon dioxide, alcohol foam.

Special Fire Fighting Procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin or eyes. Use water spray to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards

None noted.

Section V Reactivity Data

Stability	Unstable		Conditions to Avoid	Strong oxidizing reagents, metals, strong bases, amines, nitromethane.
	Stable	X		

Incompatibility Materials to Avoid

Oxidizing agents, metals, strong bases, amines, sodium tetrahydroborate, cyanides, fluorides, sulfides, peroxides.

Hazardous Decomposition or Byproducts

Phosphorus oxides.

Hazardous Polymerization

	May Occur	X	Conditions to Avoid	Azo compounds; Epoxides; And polymerizable compounds.
	Will Not Occur			

Section VI Health Hazard Data

Routes of Entry	Inhalation ?	Skin ?	Ingestion ?
	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

Causes chemical burns. Irritating to the skin, eyes, mucous membranes and upper respiratory tract. May be harmful to blood, liver and bone marrow. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, pulmonary edema. Ingestion or inhalation may cause damage to respiratory and digestive tracts.

Carcinogenicity	NTP	IARC Monographs	OSHA REGULATED?
	Not listed	Not listed	Not listed

Signs and Symptoms of Exposure.

Burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, erythema, blisters, tissue destruction, bloody diarrhea, edema, convulsions, bronchitis, pneumonia, cardiovascular collapse, shock and death.

Medical Conditions Generally Aggravated by Exposure

Expected to aggravate asthma, emphysema, other respiratory diseases.

Emergency and First Aid Procedures **EYES/SKIN:** Flush immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. Remove contact lenses if possible. Call physician immediately. Wash clothing before reuse
INGESTION: DO NOT induce vomiting. Call physician if swallowed. **INHALATION:** Move to fresh air. Give oxygen if breathing is difficult, artificial respiration if not breathing.

Section VII Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled Evacuate unprotected personnel from area. Ventilate area. Wear self-contained breathing apparatus, rubber boots, heavy protective gloves and chemical safety goggles. Neutralize spill area with soda ash or lime. Absorb spill with vermiculite or other inert material. Flush spill area with water.

Waste Disposal Method Dispose of material in accordance with all Federal, state, and local regulations.

Precautions to be Taken in Handling and Storing Store in a cool, dry, well-ventilated area in tightly-closed, plainly-labelled containers. Store in a resistant area. Protect against moisture, physical damage and light. Maintain adequate ventilation. Wash thoroughly after handling. Do not ingest or breathe vapors. Protect exposed tissues. Store below 80°F, away from heat.

Other Precautions Containers, even when empty, will retain residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Do not breathe mists or vapors. **CORROSIVE.**

Section VII Control Measures

Respiratory Protection (Specify Type) NIOSH/MSHA-approved respirator with acid vapor cartridge.

Ventilation	Local Exhaust	Necessary.	Special	Safety shower nearby.
	Mechanical (General)	Recommended.	Other	Eye wash station nearby.

Protective Gloves Chemical resistant rubber gloves. **Eye Protection** Chemical Safety Goggles.

Other Protective Clothing or Equipment Boots; protective clothing; full-face respirator, if needed.

Work /Hygienic Practices Do **NOT** wear contact lenses when handling material. Wear appropriate personal protective Wash thoroughly after handling. Avoid breathing vapors. Avoid contact with eyes, skin and clothing. Use only with ventilation. Avoid prolonged or repeated exposure. **CORROSIVE!**

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