

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: PHOSPHORIC ACID, 105%****Page 1 of 4**MSDS Date: April 22, 2003
Emergency Contact: 1-800-424-9300**SECTION I****PRODUCT NAME:** Phosphoric Acid, 105%**SYNONYMS:** Orthophosphoric Acid, Monophosphoric Acid**DOT SHIPPING INFORMATION:** Phosphoric Acid, 8,
UN 1805, PG III
RQ = 5000 lbs.**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Phosphoric Acid	7664-38-2	105	TLV: 1 mg/m ³ (TWA) 3 mg/m ³ (STEL)

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

This product is subject to SARA section 313 reporting requirements.

SECTION III - PHYSICAL DATA**BOILING POINT @ 760 mm Hg °C:** 300-550 **SPECIFIC GRAVITY @ 77 °F:** 1.9-2.1**VAPOR PRESSURE @ 68 °F:** n/a **% VOLATILE, BY VOLUME:** Non-volatile**VAPOR DENSITY (air = 1):** Non-volatile **EVAPORATION RATE:** Non-volatile**SOLUBILITY IN WATER:** Infinite**APPEARANCE AND ODOR:** Clear, colorless liquid with no odor.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:** Non-combustible**FLAMMABLE LIMITS:**

Lel: N/A Uel: N/A

EXTINGUISHING MEDIA:

Not combustible. Use appropriate extinguishing media for material that is supplying fuel. If water is used, the amount should be large enough to avoid heat and acid build-up.

SPECIAL FIRE-FIGHTING PROCEDURES:

Not combustible. Evolves hydrogen on contact with most metals.



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UNUSUAL FIRE AND EXPLOSION HAZARDS:

Thermal decomposition products may be hazardous. These include phosphorus oxide fumes. Contact with common metals produces flammable and potentially explosive hydrogen gas.

SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

This product reacts violently with bases, liberating heat and spattering. Contact with common metals produces flammable and potentially explosive hydrogen gas. It may spatter upon contact with water or water-containing chemicals and solvents with evolution of heat.

HAZARDOUS DECOMPOSITION PRODUCTS:

Under fire conditions, product may decompose to phosphoric oxide fumes and acid mist.

SECTION VI - HEALTH HAZARD DATA

NFPA HAZARDOUS RATING: Health = 3 Flammability = 0 Reactivity = 0

Carcinogenic Listing:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

SECTION VI - HEALTH HAZARD DATA (Cont'd)

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

- Contact:** Contact with liquid or mists will severely irritate and burn the skin. Prolonged contact with the liquid will burn or destroy surrounding tissue. Death may result from burns which extend over large portions of the body. Brief contact of the liquid or mists will severely damage the eyes, and prolonged contact may cause permanent eye injury, which may be followed by blindness.
- Inhalation:** Mists of this product are irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema.
- Ingestion:** Corrosive. Causes burns to the mouth, throat, esophagus and stomach, with severe chest and stomach pain; difficulty in breathing, nausea, vomiting, bloody diarrhea and convulsions. In severe cases, causes collapse and death.

STATEMENT OF PRACTICAL TREATMENT:

Contact: Immediately wipe excess material off skin with a dry cloth. Remove contaminated clothing and flush exposed area thoroughly with water while under a safety shower. Do not attempt to neutralize with chemical agents. Wash contaminated clothing before reuse. For eyes, flush thoroughly with cool water for at least 15 minutes, lifting upper and lower lids intermittently. Get medical attention - Preferably an Ophthalmologist.



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Inhalation: Remove to fresh air. If not breathing, use CPR or artificial respiration. Get **immediate** medical attention!

Ingestion: If conscious, give two or more glasses of water or milk. **Do not** induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person. Get **immediate** medical attention!

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Wear proper safety equipment (goggles, face shield, impervious protective clothing, gloves and footwear). Wash thoroughly after handling. When diluting, always add acid **slowly** to water and stir well to avoid spattering. **NEVER ADD WATER TO ACID.** Store containers in a cool, well-ventilated area away from incompatible materials.

SECTION VII - SPECIAL PRECAUTIONS (CONT'D)

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Wear suitable protective clothing and safety equipment. For small spills: Neutralize the spill area with soda ash, sodium bicarbonate or lime, flush area with copious amounts of water. Exercise caution during neutralization as considerable heat may be generated. For larger spills: Dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations. NOTE: This material is a RCRA hazardous waste due to corrosivity (D002). Spills are subject to CERCLA reporting requirements: RQ = 5000 lbs.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Use a NIOSH/MSHA approved respirator for acid mists when handling spills or leaks, or when airborne concentrations exceed exposure limits.

VENTILATION:

Local exhaust ventilation.

EYE PROTECTION:

Chemical goggles and full faceshield, unless a full facepiece respirator is also worn. Contact lenses should not be worn.

SKIN PROTECTION:

Full-body acid-resistant protective clothing, acid-resistant gloves made of neoprene, nitrile or natural rubber and boots.

OTHER PROTECTIVE EQUIPMENT:

A Safety shower and eyewash should be available in the work area.



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ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.