



MATERIAL SAFETY DATA SHEET

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P2380, P2381
MSDS No. 37132-50
Effective Date 11/15/88

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

| | | | |
|--------------------------|--------------------------------|--|---------------------|
| Product | Phosphoric Acid, 85% | CHEMTREC | HEALTH |
| Chemical Synonyms | Ortho-Phosphoric Acid | 800-424-9300 Day (312) 533-6666 | FLAMMABILITY |
| Formula | H ₃ PO ₄ | | REACTIVITY |
| RTECS # | TB8300000 | HAZARD RATING | |
| C.A.S. No. | 7664-98-2 | LEAST 0 SLIGHT 1 MODERATE 2 HIGH 3 EXTREME 4 | |

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

| | | | |
|---|--|----------|------------------|
| Principal Hazardous Component(s) | | % | TLV Units |
| NA = Not Applicable | | | |
| NE = None Established | | | |

SECTION III PHYSICAL DATA

| | | | |
|--------------------------------|--|--|---------|
| Melting Point (°F) | 21°C | Specific Gravity (H₂O = 1) | 1.89 |
| Boiling Point (°F) | 158°C | Percent Volatile by Volume (%) | NA |
| Vapor Pressure (mm Hg) | 2 @ 20°C | Evaporation Rate | = 1) NA |
| Vapor Density (Air = 1) | 3.4 | | |
| Solubility in Water | Miscible | | |
| Appearance and Odor | Clear, colorless syrupy liquid, no odor. | | |

SECTION IV FIRE AND EXPLOSION HAZARD DATA

| | | | | |
|----------------------------------|--|--|-------|-------|
| Flash Point (Method Used) | NA | Flammable Limits in Air % by Volume | Lower | Upper |
| Extinguisher Media | Use any medium suitable for extinguishing supporting fire. | | | |

SPECIAL FIREFIGHTING PROCEDURES

Use water to dilute. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Not considered to be a fire hazard. Not considered to be an explosion hazard. May release flammable hydrogen gas if exposed to many metals.



NFPA Hazard Rating
Phosphoric Acid 85% Corrosive Material UN1805

Prepared by U.S. Department of Labor "essentially similar" to form OSHA-174

SECTION V HEALTH HAZARD DATA

Threshold Limited Value 1 mg/m³ TWA
Effects of Overexposure CORROSIVE! Acute: Severe irritation and burns to skin, eyes, lungs, mucous membranes, and GI tract. Chronic: Eye damage, lung damage.

Emergency and First Aid Procedures
Skins: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean exposed skin. Eyes: Flush immediately with plenty of water for at least 15 minutes, lifting lower eyelids occasionally. Give artificial respiration immediately. Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. Ingestion: Give several glasses of water or milk if available, to drink. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person. Get medical attention immediately. Give milk of magnesium to help neutralize.

SECTION VI REACTIVITY DATA

| | | | |
|---|--------------------------------------|----------------------------|------|
| Stability | Unstable | Conditions to Avoid | Heat |
| | Stable | | |
| Incompatibility (Materials to avoid) | Metals; Caustics; Sulfides; Sulfites | | |

Hazardous Decomposition Products

| | |
|---------------------------------|-------------------|
| Hazardous Polymerization | Phosphorus Oxides |
| May Occur | Will Not Occur |
| Conditions to Avoid | None |

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
Provide forced ventilation to dissipate fumes. Clean-up personnel should wear protective clothing and respiratory equipment suitable for toxic or corrosive fumes or vapors. Isolate or enclose the area of the leak or spill. Small spills: Flush with water and neutralize with alkaline material (soda ash, lime, etc.). Larger spills and lot sizes: Neutralize with alkaline material, pick up with absorbent material (sand, earth, or vermiculite).

Waste Disposal Method

Dispose in a RCRA-approved waste facility or sewer the neutralized slurry with excess water if local ordinances allow.

SECTION VIII SPECIAL PROTECTION INFORMATION

| | | | |
|--|------------------------------|-----------------------------|-----------------------|
| Respiration Protection (Specify Type) | Self contained or acid vapor | | |
| Ventilation | Local Exhaust | Mechanical (General) | Special |
| | | X | |
| Protective Gloves | Vinyl or Rubber | | Eye Protection |
| Other Protective Equipment | Lab coat and Apron | | Goggles & Face Shield |

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing
Store in a cool dry place.
Keep container tightly closed when not in use.

Other Precautions
Read label on container before using.
Conditions Aggravated/Target Organs: Persons with preexisting skin, eye, or respiratory disorders may be more susceptible.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

| | | | | | | | |
|-----------------|---|-------------|----------|-----------------|-----------|------------------------------------|-----|
| Rev. No. | 3 | Date | 11/15/88 | Approved | K. Kuchel | Chemical Safety Coordinator | RMG |
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IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
OSHA requires that this form be kept on file.

MSDS No. _____