

MATERIAL SAFETY DATA SHEET

COMPLIES WITH OSHA'S 29 CFR 1910, 1200 AND STATE HAZARD COMMUNICATION STANDARD

A BRITE COMPANY
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24 HOUR EMERGENCY PHONE NUMBER 1-800-424-9300 (CHEMTREC)

SECTION 1: PRODUCT IDENTIFICATION

TRADE NAME : PHOSHIELD Mn
GENERAL OR GENERIC ID: Manganese phosphate
DATE PREPARED: 11/11/93
LATEST REVISION DATE: 07/26/96
NFPA/HMIS HAZARD CODES
(minimal=0; slight=1; moderate=2; serious=3; severe=4)
HEALTH: 2/2 FIRE: 0/0 REACTIVITY: 0/0 SPECIAL: NA

SECTION 2: HAZARDOUS INGREDIENTS IDENTITY INFORMATION

HAZARDOUS COMPONENTS	CAS #	OSHA PEL	ACGIH TLV	IDLH LEVEL	% /WT
*Phosphoric Acid	7664-38-2	1mg/m ³	1mg/m ³	N/A	30
*Nitric Acid	7697-37-2	5mg/m ³	5mg/m ³	100 ppm	5
*Nickel	7440-02-0	1mg/m ³	N/A	N/A	<1
*Manganese	7439-96-5	N/A	N/A	N/A	5

*= Reportable under SARA Title III

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 212°F
VAPOR PRESSURE: N/A
VAPOR DENSITY: N/A
SOLUBILITY IN WATER: complete
APPEARANCE AND COLOR: Light green liquid with no odor.

SPECIFIC GRAVITY: 1.34
PERCENT VOLATILE: 58.3%
EVAPORATION RATE: as water

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: not flammable
EXTINGUISHING MEDIA: Water fog, carbon dioxide, alcohol foam, dry chemical and Halon.
SPECIAL FIRE FIGHTING PROCEDURES: Pressure demand, self contained respiratory protection and protective clothing should be worn by firefighters.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Non combustible material.

FLAMMABLE LIMITS: N/A

SECTION 5: REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBILITY: Alkali and alkaline materials.
CONDITIONS TO AVOID: Splashing or dropping of water or strong alkalis on product.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen can be liberated.

SECTION 6: HEALTH HAZARD DATA

ROUTES OF ENTRY /SIGNS AND SYMPTOMS OF EXPOSURE:
ACUTE: Corrosive to eyes and skin, solids or concentrated solutions may destroy tissue on contact. Can cause blindness.
INGESTION: Harmful if swallowed. Can cause severe burns and complete perforation of mucous membranes to the mouth, throat, esophagus and stomach if swallowed.
INHALATION: Mist or dust at high levels may cause irritation to the nose, throat and lungs. May cause damage to the upper respiratory tract.
CHRONIC EFFECTS: None known
CARCINOGENS: Nickel metal is suspected carcinogen.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.
EMERGENCY AND FIRST AID PROCEDURES:
EYES: Immediately flush with plenty of water for 15 minutes. See a physician.
SKIN: Wash with soap and water. Remove contaminated clothing. See a physician if irritation occurs.
INHALATION: Remove to fresh air. If breathing has stopped start artificial respiration. See a physician.
INGESTION: Call a physician immediately, **DO NOT INDUCE VOMITING DILUTE BY DRINKING WATER (MILK IF AVAILABLE) NEVER GIVE LIQUIDS TO AN UNCONSCIOUS PERSON.**

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURES:
SMALL SPILLS: Flush to treatment system with large amounts of water.
LARGE SPILLS: Sweep up into suitable containers. Keep out of fish bearing waters.
WASTE DISPOSAL METHOD: Dump to waste water treatment system, observe local, state and federal regulations.

SECTION 8: TRANSPORTATION AND LABELING

REGULATORY INFORMATION:
DOT HAZARD CLASS: 8
SHIPPING NAME: Corrosive liquid, n.o.s.
ID NUMBER: UN 1760
PACKING GROUP: II
LABELS: Corrosive
TSCA: All components included in the inventory.

SECTION 9: HANDLING AND STORAGE

HANDLING AND STORING: Keep container closed when not in use.
OTHER PRECAUTIONS: Keep out of reach of children. Store in proper chemical storage area.
If water pollution occurs, notify the proper authorities.

SECTION 10: CONTROL MEASURES

RESPIRATORY PROTECTION: Use NIOSH approved respiratory equipment for dust and mist.
VENTILATION: Local exhaust to maintain air contamination below TLV limit.
GLOVES: Rubber gloves, neoprene, or synthetic rubber required.
EYE PROTECTION: Safety glasses or goggles required.
OTHER PROTECTIVE EQUIPMENT: As needed to prevent prolonged or repeated skin contact. Eye wash fountain and safety shower in work area.
WORK /HYGIENIC PRACTICES: Launder contaminated clothing before reuse.

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