

MSDS DATE: 8/11/92
CHANGE NO.: 8745For Assistance, Contact:
Regulatory Affairs Dept.
PO Box 907 Ames, IA 50010
(800) 227-4224HACH COMPANY
PO BOX 907
AMES, IA 50010Emergency Telephone #
Rocky Mountain Poison Ctr.
(303) 623-5716**I. PRODUCT IDENTIFICATION**PRODUCT NAME: Dissolved Oxygen 1 Reagent
CAS NO.: 10034-96-5 CHEMICAL NAME: Manganese Sulfate, Monohydrate
FORMULA: MnSO4·H2O CHEMICAL FAMILY: Inorganic Salts**II. INGREDIENTS**Manganous Sulfate Monohydrate
PCT: 100 CAS NO.: 10034-96-5 SARA: LISTED
TLV: 5 mg/M3 as Mn PEL: C: 5 mg/M3 as Mn
HAZARD: Systemic poison by inhalation**III. PHYSICAL DATA**STATE: solid APPEARANCE: Pink powder ODOR: Not determined
SOLUBILITY IN: WATER: Soluble ACID: Not determined
OTHER: Not determined BOILING POINT: NA MELTING PT.: >400°C
SPEC GRAVITY: ND pH: of 5% soln. = 3.7 VAPOR PRESSURE: Not applicable
VAPOR DENSITY (air=1): NA EVAPORATION RATE: NA
METAL CORROSIVITY - ALUMINUM: 0.002 in/yr STEEL: ND STABILITY: Stable
STORAGE PRECAUTIONS: Store in a cool, dry place.**IV. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA**FLASH PT.: Not applicable METHOD: NA
FLAMMABILITY LIMITS - LOWER: NA UPPER: NA
SUSCEPTIBILITY TO SPONTANEOUS HEATING: None
SHOCK SENSITIVITY: None AUTOIGNITION PT.: ND
EXTINGUISHING MEDIA: water, carbon dioxide, or dry chemical
FIRE/EXPLOSION HAZARDS: May emit toxic fumes in fire
HAZARDOUS DECOMP. PRODUCTS: May emit toxic fumes of sulfur oxides in fire
OXIDIZER: No NFPA Codes: Health: 2 Flammability: 0 Reactivity: 1
CONDITIONS TO AVOID: Heat, moisture; contact with aluminum or magnesium**V. HEALTH HAZARD DATA**THIS PRODUCT MAY BE: irritating to eyes, skin and respiratory tract.
ACUTE TOXICITY: Moderately toxic
ROUTES OF EXPOSURE: Inhalation
TARGET ORGANS: central nervous system
CHRONIC TOXICITY: Cumulative poison
ROUTES OF EXPOSURE: Inhalation
TARGET ORGANS: central nervous system, blood
CANCER INFORMATION: Experimental neoplasm formation (benign or malignant tumors)
ROUTES OF EXPOSURE: Not determined
TARGET ORGANS: Not determined
OVEREXPOSURE: Sleepiness, weakness in legs, mask-like facial expression, muscle-twitching, slurred speech. May cause or contribute to upper respiratory infections or pneumonia. Manganese has been reported to cause blood changes.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Alcoholism, liver dysfunction, psychiatric disease, disease of the nervous system or respiratory tract.**VI. PRECAUTIONARY MEASURES**Avoid contact with eyes and skin.
Do not breathe dust.
Wash thoroughly after handling.
PROTECTIVE EQUIPMENT: adequate ventilation, lab grade goggles, disposable gloves**VII. FIRST AID**EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Flush skin with plenty of water.
INGESTION: Give large quantities of water. Call physician immediately.
INHALATION: Remove to fresh air. Give artificial respiration if necessary. Call physician.**VIII. SPILL AND DISPOSAL PROCEDURES**IN CASE OF SPILL OR RELEASE: Sweep up powder. Avoid breathing material. Dissolve in water. Flush down the drain with excess water.
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.**IX. TRANSPORTATION DATA**D.O.T. PROPER SHIPPING NAME: Not Currently Regulated
HAZARD CLASS: Not applicable ID: NA
I.C.A.O. PROPER SHIPPING NAME: Not Currently Regulated
HAZARD CLASS: NA ID: NA GROUP: NA
I.M.O. PROPER SHIPPING NAME: Not Currently Regulated
HAZARD CLASS: NA ID: NA GROUP: NA**X. REFERENCES**

- 1) TLV's Threshold Limit Values and Biological Exposure Indices for 1988-1989. American Conference of Governmental Industrial Hygienists, 1988.
- 2) Air Contaminants, Federal Register, Vol. 54, No. 12, Thursday, January 19, 1989. pp. 2332-2983.
- 3) Sax, N. Irving. Dangerous Properties of Industrial Materials, 6th Ed. New York: Van Nostrand Reinhold Co. 1984.
- 4) Gosselin, R.E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984.
- 5) Technical Judgment
- 6) NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards. Cincinnati: Department of Health and Human Services, 1981.

SARA: This product contains a chemical or chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.