

MSDS DATE: 6/01/93
CHANGE NO.: 12068For 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 3 Reagent Powder Pillows
CAS NO.: 5329-14-6 CHEMICAL NAME: Sulfamic acid
FORMULA: H2NSO3H CHEMICAL FAMILY: Inorganic Acids**II. INGREDIENTS**Sulfamic Acid
PCT: <100 CAS NO.: 5329-14-6 SARA: NOT LISTED
TLV: Not established PEL: Not established
HAZARD: Causes eye burns; moderately toxicOther component
PCT: <1 CAS NO.: NA SARA: NOT LISTED
TLV: Not applicable PEL: Not applicable
HAZARD: Not applicable

Any component of this mixture not specifically listed (eg. "other components") is not considered to present a carcinogen hazard.

III. PHYSICAL DATASTATE: solid APPEARANCE: White crystalline powder ODOR: None
SOLUBILITY IN: WATER: Soluble ACID: Soluble
OTHER: Slightly soluble alc., methanol BOILING POINT: NA
MELTING PT.: 205C decomp. SPEC GRAVITY: 2.15 pH: of 1% soln = 1.18
VAPOR PRESSURE: Not applicable VAPOR DENSITY (air=1): NA
EVAPORATION RATE: NA METAL CORROSIVITY - ALUMINUM: ~0.212 in/yr
STEEL: ~0.814 in/yr STABILITY: See Conditions to Avoid
STORAGE PRECAUTIONS: Store tightly closed in a 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 or dry chemical
FIRE/EXPLOSION HAZARDS: Reacts violently with chlorine, fuming nitric acid;
may emit toxic fumes in fire
HAZARDOUS DECOMP. PRODUCTS: May emit toxic fumes of sulfur oxides, nitrogen
oxides in fire
OXIDIZER: No NFPA Codes: Health: 2 Flammability: 1 Reactivity: 1
CONDITIONS TO AVOID: Contact with chlorine or fuming nitric acid; extreme
heat or flame; excess moisture**V. HEALTH HAZARD DATA**THIS PRODUCT MAY BE: corrosive to eyes, irritating to skin and respiratory
tract.
ACUTE TOXICITY: Oral rat LD50 = 3160 mg/Kg = Moderately toxic
ROUTES OF EXPOSURE: ingestion, inhalation
TARGET ORGANS: Not determined
CHRONIC TOXICITY: Not determined
ROUTES OF EXPOSURE: Not determined
TARGET ORGANS: Not determined
CANCER INFORMATION: Not applicable
ROUTES OF EXPOSURE: Not applicable
TARGET ORGANS: Not applicable
OVEREXPOSURE: Causes eye burns. May cause skin and respiratory tract
irritation.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing eye, skin and
respiratory tract conditions.**VI. PRECAUTIONARY MEASURES**Avoid contact with eyes, skin and clothing
Do not breathe dust.
Wash thoroughly after handling.
Keep away from heat, sparks and open flame.
PROTECTIVE EQUIPMENT: adequate ventilation, lab grade goggles, rubber
gloves, lab coat**VII. FIRST AID**EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15
minutes. Remove contaminated clothing. Call physician.
INGESTION: Do NOT induce vomiting. Give 1 - 2 glasses of water. Call a
physician immediately. Never give anything by mouth to an unconscious
person.
INHALATION: Remove to fresh air.**VIII. SPILL AND DISPOSAL PROCEDURES**IN CASE OF SPILL OR RELEASE: Cover contaminated surfaces with soda ash or
sodium bicarbonate. Mix and add water if necessary. Use litmus paper to
make sure pH of slurry is neutral or add neutralizer until mixture stops
bubbling. Scoop up the slurry and wash the neutral waste down the drain
with excess water. Wash the site with soda ash solution.
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.**IX. TRANSPORTATION DATA**D.O.T. PROPER SHIPPING NAME: Corrosive Solid, N.O.S.
(Sulfamic Acid Mixture)
HAZARD CLASS: Corrosive Material ID: UN1759
I.C.A.O. PROPER SHIPPING NAME: Sulphamic Acid Mixture
HAZARD CLASS: 8 ID: UN2967 GROUP: III
I.M.O. PROPER SHIPPING NAME: Sulphamic Acid Mixture
HAZARD CLASS: 8 ID: UN2967 GROUP: III**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) In-house information
- 4) Technical judgment
- 5) Sax, N. Irving. Dangerous Properties of Industrial Materials, 6th Ed. New York: Van Nostrand Reinhold Co. 1984.
- 6) Outside testing.