MATERIAL SAFETY DATA SHEET

PO#: OF 1781 HACH ORDER#: 597685

MSDS DATE: 8/04/93 CHANGE NO.: 8745

For Assistance, Contact: Regulatory Affairs Dept. PO Box 907 Ames, IA 50010 (800) 227-4224

HACH COMPANY PO BOX 907 AMES, IA 50010

Emergency Telephone # Rocky Mountain Poison Ctr. (303) 623-5716

PRODUCT IDENTIFICATION т

PRODUCT NAME: Dissolved Oxygen 2 CHEMICAL NAME: Not applicable CAS NO.: NA FORMULA: Not applicable CHEMICAL FAMILY: Not applicable

II. INGREDIENTS

The second secon Lithium Hydroxide, Monohydrate PCT: <65 CAS NO.: 1310-66-3 SARA: NOT LISTED TLV: Not established PEL: Not established HAZARD: Very toxic; corrosive

Potassium Iodide CAS NO.: 7681-11-0 SARA: NOT LISTED PCT: <40 TLV: Not established PEL: Not established HAZARD: May cause Irritation

Sodium Azida PCT: <5 CAS NO.: 26628-22-8 SARA: NOT LISTED TLV: C: 0.11 ppm PCT: <5 PEL: C: 0.3 ppm(NaN3) HAZARD: Extremely toxic; severe explosion hazard

III. PHYSICAL DATA

STATE: solid APPEARANCE: White crystals ODOR: None SOLUBILITY IN: WATER; Soluble ACID: Not determined OTHER: Not determined BOILING POINT: NA MELTING PT.: 110°C SPEC GRAVITY: 1.94 pH: of 5% soln. = 12.6 VAPOR PRESSURE: Not applicable VAPOR DENSITY (air=1): NA EVAPORATION RATE: NA METAL CORROSIVITY - ALUMINUM: 0.248 in/yr STEEL: ND STABILITY: See Conditions to Avoid 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: Not determined 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 lodine in fire: irritating fumes in contact with acids OXIDIZER: No NFPA Codes: Health: 3 Flammability: 1 Reactivity: 1 CONDITIONS TO AVOID: Extreme temperatures; contact with moisture, acids or oxidizers.

THIS PRODUCT MAY BE: corrosive to eyes, skin and respiratory tract.

HEALTH HAZARD DATA

ACUTE TOXICITY: oral rat LD50 = 350mg/Kg = Very toxic ROUTES OF EXPOSURE: ingestion, inhalation, skin absorption TARGET ORGANS: central nervous system, liver, kidneys, spleen CHRONIC TOXICITY: Not determined ROUTES OF EXPOSURE: Not determined TARGET ORGANS: Not determined CANCER INFORMATION: An ingredient of this mixture is a potential carcinogen. ROUTES OF EXPOSURE: ingestion TARGET ORGANS: Not determined OVEREXPOSURE: Causes severe burns, dizziness, nausea, central nervous system depression, coma, death. Chronic iodide overdose may cause skin rash. runny nose, headaches, fever and irritation of mucous membranes. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Chronic respiratory diseases, especially those obstructing the airway; skin disorders; eye conditions.

May lower high blood pressure. VI. PRECAUTIONARY MEASURES

Avoid contact with eyes and skin. Do not breathe dust. Wash thoroughly after handling. PROTECTIVE EQUIPMENT: fume hood, lab grade goggles, disposable latex gloves,

VII. FIRST AID

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

EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15

INHALATION: Remove to fresh air. Give artificial respiration if necessary. Call physician.

VIII. SPILL AND DISPOSAL PROCEDURES

IN CASE OF SPILL OR RELEASE: Scoop material into a beaker and dissolve with water. Neutralize to a pH between 6 and 9 with an acid such as hydrochloric acid. Flush neutralized waste to 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: Lithium Hydroxide, Solid Mixture HAZARD CLASS: Corrosive Material

I.C.A.O. PROPER SHIPPING NAME: Lithium Hydroxide Monohydrate Mixture HAZARD CLASS: 8 ID: UN2680 GROUP: II

I.M.O. PROPER SHIPPING NAME: Lithium Hydroxide, Solid Mixture HAZARD CLASS: 8 ID: UN2680 GROUP: II

Υ. 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) Outside testing.
- 6) NIOSH Registry of Toxic Effects of Chemical Substances, 1985-86. Cincinnati: U. S. Department of Health and Human Services, April. 1987.
- 7) Sax, N. Irving. Dangerous Properties of Industrial Materials, 6th Ed. New York: Van Nostrand Reinhold Co. 1984.

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