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MATERIAL SAFETY DATA SHEET

A Product Of: Synthetic Labs, Inc.
24 Victory Lane
Dracut, MA 01826

Date: 1-1-2005
Ref. No.: 5105
Telephone: 978-945-2919
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SECTION I - PRODUCT IDENTIFICATION

Trade Name: Microbicide #51 EPA Reg. No. 1448-115-9619
Chemical name / synonyms: Water treatment compound liquid
Formula: Mixture

D.O.T.: Caustic Alkali, N.O.S. (Contains Potassium N-Methyldithiocarbamate, Disodium Cyanodithioimidocarbonate), 8, UN 1719, PG III

HMS CODE: Health 3, Fire 1, Reactivity 1

HMS KEY: 4=Extreme, 3=High, 2=Moderate, 1=Slight, 0=insignificant

SECTION II - HAZARDOUS INGREDIENTS

Substance	% Composition	TLV
Potassium N-methyldithiocarbamate CAS #137-41-7	5.07	NA
Disodium cyanodithioimidocarbonate CAS #138-93-2	3.68	NA

SECTION III - PHYSICAL DATA

Boiling Pt (°F): above 212
Vapor Pressure(mm Hg): NA
Vapor Density (air=1): NA
Solubility in water: Complete
Appearance and Odor: Clear red-orange liquid, sulfide odor.

Specific Gravity: 1.04
Percent Volatile: NA
Evaporation Rate: same as water
pH: 13 (neat)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammable Limits: Not determined

Extinguishing Media: water fog, carbon dioxide, foam, dry chemical as necessary for surrounding fire.

Special fire fighting procedures: Self contained breathing apparatus and full body protective clothing required. Water may be used to cool containers.

SECTION V - HEALTH HAZARD DATA - ROUTES OF ENTRY

Primary Routes of Exposure: Eye, Skin, Inhalation, Ingestion

Effects of Acute Exposure: EYE-effects may range from moderate to severe (corrosion) depending on the length of exposure, solution concentration and first aid measures. SKIN-corrosive. Sensitization of the product: not available. Mild to severe skin irritation depending on length of exposure, solution concentration and first aid measures. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. INGESTION-no data is available on ingestion; may be harmful. Ingestion is not expected to be a primary route of exposure. INHALATION-may be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

Effects of Chronic Exposure: chronic effects from exposure have not been evaluated.

Emergency and First Aid Procedures: EYES-flush immediately with copious amounts of tap water or normal saline minimum of 15 minutes. Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation. SKIN-wash exposed area with plenty of soap and water. Repeat washing. Remove

contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional. INHALATION-move the exposed person to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic seek a health care professional immediately. INGESTION-DO NOT INDUCE VOMITING. Rinse mouth with copious amounts of water or milk first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

SECTION VI - REACTIVITY DATA

Stability: stable for greater than 30 days at 50 degrees. centigrade.

Stability will decline rapidly at higher temperatures.

Conditions to avoid: Avoid mixing with strong acids or oxidizers.

Hazardous decomposition products: carbon disulfide, methylamine, hydrogen sulfide, methyl isothiocyanate.

SECTION VII - SPILL OR LEAK PROCEDURE

Important: When responding to a spill or leak of this product, follow recommendations contained in the Special Protection Information Section VIII of this MSDS.

Initially minimize area effected by the spill or leak. Block any potential routes to water systems. Based on the products toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (water systems, ground, air, equipment, etc.) Minimize adverse effects on these environments. Determine if federal, state, and/or local release notification is required (see Regulatory Information Section). Recover as much of the pure product as possible. Later determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residual may have to be collected and disposed of or flushed to sewer depending on amount of residual and type of sewer system.

Spill or Leak Residuals, Contaminated Materials: Determine if waste containing this product can be handled by available effluent system or other on-site waste management unit (e.g. incinerator, deep well, etc.) If off-site management is required, contact a company experienced in industrial waste management. Empty containers of this product are not hazardous wastes.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Rubber gloves, safety glasses, body protective clothing recommended.

SECTION IX - SPECIAL PRECAUTIONS

Steps to be taken in handling and storage: Store above 35°F. Keep container tightly closed when not in use. Recommended shelf life: one year. See product label for additional information.

Other precautions: KEEP OUT OF REACH OF CHILDREN.

SECTION X - TOXICOLOGICAL INFORMATION

Acute Effects:

Acute Oral (LD50)=661 mg/kg Rat
Acute Dermal (LD50)=883 mg/kg Rabbit

Irritant / Sensitization Effects:

Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering, and itching.

Sensitization of the product: Not available.

Very hazardous in case of skin contact (corrosive, irritant). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

Carcinogenic Potential:

Not tested. Laboratory studies on sodium N-methyldithiocarbamate (SNMDC), a chemically similar compound to one of the active ingredients in this product, have shown some developmental and carcinogenic effects in laboratory animals. Exposure monitoring studies conducted with SNMDC during normal agricultural applications have shown that human exposure is extremely low; therefore, any potential risk to humans from SNMDC exposure is considered minimal.

Target Organs Effects:

May cause damage to the following organs: upper respiratory tract, skin, eyes.

Other Health Effects:

None known.

SECTION XI - ENVIRONMENTAL TOXICOLOGICAL INFORMATION

48 Hour LC50 in Invertebrates: Daphnia magna: 0.14 mg/L

SECTION XI - REGULATORY INFORMATION

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act): contains no 40 CFR 302.4 listed hazardous substances

SARA (Superfund Amendments and Reauthorization Act)

Section 302 (Extremely Hazardous Substance List 40 CFR 300) - no components of this product on Extremely Hazardous Substance List.

Section 312 (Hazard Category - 40 CFR 327) - Immediate (Acute) Health hazard.

Section 313 (Toxic Chemicals List - 40 CFR 372.45) - no components of this product are listed on the Toxic Chemicals List.

RCRA (Resource Conservation and Reclamation Act) - this product is not specified as a hazardous waste under 40 CFR 261.

CWA (Clean Water Act) - this product does not contain components in 40 CFR 401.15

OSHA (Hazard Communication Standard - 29 CFR 1910.1200) - based on the Hazard Communication Standard, the following chemicals are present in greater than 1% and are listed below associated with their hazard.

Potassium N-methyldithiocarbamate - Corrosive to eyes and skin. Toxic by ingestion or dermal absorption.

Disodium cyanodithioimidocarbonate - Corrosive to eyes and skin. Toxic by ingestion or dermal absorption.

ACGIH (American Conference of Governmental Industrial Hygienists): has not established a TLV/TWA/STEL for any components.

TSCA (Toxic Substance Control Act) - exempt as registered pesticide
FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) - Registered EPA No. 9612-11
HMIS/NPCA Rating: Health 3; Flammability 1; Reactivity 1