



Material Safety Data Sheet

NA (Not Applicable), ND (Not Determined), NE (Not Established), NT (Not Tested)

IDENTITY (As Used on Label and List)

Microbiocide 25-J

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

| | |
|---|---|
| Manufacturer's Name Water Chemistry, Inc. | Emergency Telephone Number (540) 989-0400 |
| Address (Number, Street, City, State, and ZIP code) 3404 Aerial Way Drive Roanoke, VA 24018 | Telephone Number for Information (540) 343-3618 |
| | Date Prepared June 2012 |
| | Signature of Preparer (Optional) |

Section II – Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity: Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional) |
|---|----------|-----------|--------------------------|--------------|
| Disodium cyanodithioimidocarbonate | NA | NA | | 14.7% |
| Potassium N-methyldithiocarbamate | NA | NA | | 20.3% |
| | | | | |
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The information in this data sheet has been assembled based on our studies and on the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee, the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy, or furnishing of such information.

HAZARD RATING
 4 = EXTREME
 3 = HIGH
 2 = MODERATE
 1 = SLIGHT
 0 = INSIGNIFICANT
 * = CHRONIC HEALTH HAZARD – SEE SECTION VI



SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|-----------------------|---------------------------------------|------------------------------------|----------------------|
| Boiling Point | >100°C (212°F) | pH (Neat) pH (100 ppm in water) | 13 (Basic) 8 - 10 |
| Vapor Pressure (mmHg) | NA | Melting Point | <-13.3°C (8.1°F) |
| Density | 1.22 g/cm ³ at 25°C (77°F) | Evaporation Rate (Water = 1) | 1 |

Solubility in Water: Easily soluble in cold water. Easily soluble in hot water.

Appearance and Odor: Clear, red-orange liquid with a sulfide odor

SECTION iv – Fire and Explosion Hazard Data

| | | | |
|---|------------------|-----------|-----------|
| Flash Point (Method Used) Closed cup: >100°C (212°F) (Pensky-Martens) | Flammable Limits | LEL NA | UEL NA |
|---|------------------|-----------|-----------|

Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Unusual Fire and Explosion Hazards: None

| Section V – Reactivity Data | | | Microbiocide 25-J |
|---|-----------------------------|--------------|--|
| Stability | Unstable | | Conditions to Avoid Do not heat or store above 50°C as decomposition may increase packaging pressure. |
| | Stable | X | |
| Incompatibility (Materials to Avoid) Strong acids, strong oxidizers, corrosive to aluminum, extended heating at high temperatures. | | | |
| Hazardous Decomposition or Byproducts Carbon disulfide, hydrogen sulfide, methylamine, methylisothiocyanate. | | | |
| Hazardous Polymerization | May Occur | | Conditions to Avoid |
| | Will Not Occur | X | |
| Section VI – Health Hazard Data | | | |
| Route(s) of Entry: | Inhalation? Yes | Skin? Yes | Eyes? Yes |
| Ingestion? Yes | | | |
| Health Hazards (Acute and Chronic) EYE: Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching. SKIN: Very hazardous in case of skin contact (corrosive, irritating). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. INHALATION: May be harmful if inhaled. Do not breathe mists of the undiluted product. Effects will depend on solution strength and length of time of exposure. | | | |
| INGESTION: Ingestion is not expected to be a primary route of exposure. | | | |
| Toxicity: Acute Oral LD50 Rats: 707 mg/kg (Males), 623 mg/kg (females) Acute Dermal LD50 Rabbits: Between 1,000 and 2,000 mg/kg Environmental Toxicity: LC50 = 0.14 mg/l 48 hours Daphnia magna | | | |
| Carcinogenicity: Low | | | |
| Emergency and First Aid Procedures | | | |
| EYE: 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 water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional. | | | |
| INHALATION: Immediately move exposed individual 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 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. | | | |
| Section VII – Precautions for Safe Handling and Use | | | |
| Steps to be Taken in Case Material is Released or Spilled Initially minimize area affected by the spill. Block any routes to water systems. Recover as much of the pure product as possible into appropriate containers. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to contain the spill. | | | |
| Waste Disposal Method Contact appropriate local, state, and federal regulatory agencies before discharging or disposing of waste material. | | | |
| Precautions to Be Taken in Handling and Storing Keep container closed when not in use. Store in a cool, dry place. Do not breathe mists or get in eyes, skin, or clothing. Wash hands thoroughly after handling. | | | |
| Other Precautions Wear safety goggles or face shield, rubber gloves, hat, long sleeve shirt, long pants, and boots when working in an area where misting may occur or where exposure to the product may occur. | | | |
| DOT Shipping Information: UN3267, Corrosive Liquid, Basic, Organic, N.O.S., (Potassium N-methyldithiocarbamate, Disodium cyanodithioimidocarbonate), Class 8, P.G. III, Marine Pollutant (ERG Guide 153) | | | |
| Section VIII – Control Measures | | | |
| Respiratory Protection (Specify Type) When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for the material and level of exposure. Eye wash fountains in the area are strongly recommended. | | | |
| Ventilation | Local Exhaust Yes | Special | NA |
| | Mechanical (General) Yes | Other | NA |
| Protective Gloves Chemical resistant gloves | | | |
| Other Protective Clothing or Equipment If splashing can occur, a face shield is advisable. Indirect ventilation goggles, body-protective clothing, and chemical resistant safety shoes. | | | |
| Work/Hygienic Practices The handling precautions for this product are based on the characteristics of the neat product unless otherwise specified. | | | |