

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Identifiers

Product name: #AM-2225 Microbiocide
Product Application: Microbiocide for open recirculating cooling water systems
Emergency telephone number: CHEMTREC (800) 424-9300 **Poison Control:** 1-800-222-1222

SECTION 2 – HAZARD IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Signal Word: **DANGER**

Pictograms: Irritant - Corrosive

Physical Hazards: Not Classified

Health Hazards: Acute toxicity, Oral (Category 4) Toxic if swallowed.

Acute toxicity, Dermal (Category 3) Toxic if swallowed or in contact with skin

Skin corrosion (Category 1) Causes severe skin burns and eye damage.

Eye damage/irritation (Category 1) Causes serious eye damage.

Respiratory Irritation (Category 3)

Environmental Hazards: May be significant ecotoxicity

Precautionary Statements

Prevention: Wash hands or other contact areas thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. Manufacturer/Supplier or competent authority to select medical advice or attention as appropriate. Avoid release to the environment.

Response: **If on skin:** Wash with plenty of water. See First Aid on this label for specific treatment. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Seek immediate medical attention. Specific treatment is shown in First Aid section.

Collect Spillage

Storage: None

Disposal: Dispose of contents/ container to an approved waste disposal plant.

HNOC:* None

Supplemental Info: **HMIS Rating:** Health hazard: 3 Flammability: 0

Chronic Health Hazard: * Physical Hazard 0

NFPA Rating: Health hazard: 3, Fire Hazard: 0, Reactivity Hazard: 1

* Hazards not otherwise classified (HNOC) or not covered by GHS



SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient	CAS	Wt%
Potassium N-methyldithiocarbamate	137-41-7	4-6%
Disodium Cyanodithioimidocarbonate	138-93-2	5-7%

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: Remove the person from exposure. Begin rescue breathing (using universal precautions) if breathing has stopped and CPR if heart action has stopped. Transfer promptly to a medical facility. Medical observation is recommended for 24 to 48 hours after overexposure, as pulmonary edema may be delayed.

In case of skin contact: Quickly remove contaminated clothing. Immediately wash gently with large amounts water for at least 30 minutes. Seek medical attention immediately.

In case of eye contact: Immediately flush with large amounts of water for at least 30 minutes, lifting upper and lower lids. Remove contact lenses, if worn, while flushing. Seek medical attention immediately.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: Burning pain, corrosive skin and eye burns. Irritation of respiratory tract if vapors inhaled.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically, goal is to get chemical off skin / out of eyes.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing media: Nonflammable

Suitable extinguishing media: Extinguish fire using an agent suitable for type of surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to keep fire-exposed containers cool.

Special hazards arising from the substance or mixture. Overheating in fire conditions may release Carbon Disulfide, Methylamine, Methylisothiocyanate. Decomposition may also increase container internal pressure.

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA Fire Brigades Standard (29 CFR 1910.156).

SECTION 6 – ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment as indicated, including respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: Absorb liquids in dry sand, earth, or a similar material and place into sealed containers for disposal. Ventilate and wash area after clean-up is complete. DO NOT wash into sewer. Contact your state Department of Environmental Protection (DEP) or your regional office of the federal Environmental Protection Agency (EPA) for specific recommendations.

Reference to other sections: For disposal see Section 13.

Note: If employees are required to clean-up spills, they must be properly trained and equipped. The OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) may apply.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Avoid inhalation of vapor or mist. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not eat, drink, or smoke while handling. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Keep container upright and tightly closed in a dry, cool, and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Follow normal storage practices for non-combustible, corrosive hazardous materials.

SECTION 8 – EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters

Components with workplace control parameters:

None

Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Good ventilation of the chemical use area, typically 10 air changes per hour. Eye wash and emergency drench shower should be immediately available in the use area. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with acid-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Appropriate chemical resistant clothing, use of an impervious apron is recommended.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Improper use of respirators is dangerous. Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

General Information:

Physical State:	Clear, reddish-orange liquid with pungent Sulfide odor
Boiling Point/Range:	Not Determined
Flash Point:	Not Flammable
Auto Ignition Temp:	N/A
Lower Flammability Limit:	N/A
Upper Flammability Limit:	N/A
Vapor Pressure (psi @100°F):	N/A
Vapor Density:	N/A

Freezing Point/Melting Point:	Not Determined
Solubility (Water):	Complete
Specific Gravity:	1.104 (9.21 lb/gal)
Evaporation Rate:	Not Determined
Viscosity (SSU@ 100°F):	Not Determined
pH (neat solution):	10.8
Volatility:	Not Determined

Note: Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:	Reactive with acidic materials / solutions
Chemical stability:	Stable under recommended storage / usage conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	Mixing with other chemicals, incompatible materials.
Incompatible materials:	Acids, oxidizers, aluminum.
Hazardous decomposition products:	Carbon Disulfide, Methylamine, Methylisothiocyanate.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Inhalation:	No Data
Dermal:	Rabbit LC-50 1500 mg/kg estimated
Oral:	Rat LC-50 623 mg/kg

Skin Corrosion/irritation: Causes severe skin irritation / corrosion damage

Eye damage/eye irritation: Causes serious eye irritation / corrosion damage

Respiratory or skin sensitization: Not a respiratory or skin sensitizer

Germ cell mutagenicity: No data available

Carcinogenicity: IARC, ACGIH, NTP, and OSHA: Lab 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.

Reproductive toxicity: Not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: May cause respiratory, skin, eye irritation

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: Not an aspiration hazard

Chronic Effects: Prolonged inhalation may be harmful

Additional Information: None.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity: Daphnia Magna LC-50 0.14 mg/L / 48 hours

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

SECTION 13 – DISPOSAL CONSIDERATION

Waste treatment methods Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

Note: This product is intended to be used in open recirculating cooling water treatment and discharged to sanitary sewer in its diluted state in tower bleedoff water. Concentrated product may be diluted to a similar working concentration and flushed to sewer or concentrate soaked up with absorbent material and landfilled in accordance with local, state, and federal regulations.

SECTION 14 – TRANSPORT INFORMATION

14. Transport information (USDOT):

Proper shipping Name: Corrosive Liquid, Basic, Organic, N.O.S. (Contains Potassium N-Methyldithiocarbamate, Disodium Cyanodithioimidocarbonate)

Hazard Class: Corrosive (8)

UN/ID No UN3267

Packing Group III

Reportable Quantity (RQ) 360 lbs (calculated)

Other Description: EPA Registration # 1448-180-38723



SECTION 15 – REGULATORY INFORMATION

TSCA (Toxic Substance Control Act): EPA Registered Pesticides are exempt.

CERCLA: (Comprehensive Emergency Response Compensation, and Liability Act) (40 CFR 302.4): Not Listed

RCRA: (Resource Conservation/Recovery Act): Not listed

SARA 302 Extremely Hazardous Substances: Not Listed

SARA 304 Emergency Release Notification:

Potassium N-methyldithiocarbamate 137-41-7 360 lbs (Calculated)

Disodium Cyanodithioimidocarbonate 138-93-2 360 lbs (Calculated)

SARA 311/312 Hazardous Chemical: Acute Health Haard

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List & 112(r) Accidental Release Prevention: Not Listed

Drug Enforcement Administration (DEA) List #1 & #2, Essential Chemicals (21 CFR 1310.02(b), 1310.04(f)(2), & 1310.12(c): Not Listed

SECTION 16 – OTHER INFORMATION

National Fire Protection Association (NFPA) Rating:

This Safety Data Sheet compiled from information provided by the raw chemical product manufacturers.



Disclaimer: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be



530 South Fifth Street, Quincy, IL 62301-4896
V: 217-223-2017 F: 217-223-7734 8am-5pm US CST
After Hours: CHEMTREC 1-800-424-9300

SAFETY DATA SHEET (GHS Format)

Also available for download at:

<http://www.WalterLouis.com/MSDS/>

assumed by the vendor for any damage or injury resulting from abnormal use, from failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.