



MATERIAL SAFETY DATA SHEET

Rohm and Haas Company

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

KATHON™ CC Industrial Microbicide

Product Code : 43246
Key : 831851-8

MSDS Date : 08/20/02

COMPANY IDENTIFICATION

ROHM AND HAAS COMPANY
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY : 215-592-3000
SPILL EMERGENCY : 215-592-3000
CHEMTREC : 800-424-9300

KATHON™ is a trademark of Rohm and Haas Company or one of its subsidiaries or affiliates

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>No</u>	<u>_____</u>	<u>CAS REG NO</u>	<u>WEIGHT (%)</u>
1	5-Chloro-2-methyl-4- isothiazolin-3-one	26172-55-4	1.10 - 1.35
2	2-Methyl-4-isothiazolin-3-one	2682-20-4	0.35 - 0.45
3	Magnesium Chloride	7786-30-3	1.0 - 1.2
4	Magnesium nitrate	10377-60-3	1.4 - 2.0
5	Disodium monocopper citrate	65330-59-8	25 - 27
6	Water	7732-18-5	69 - 71

See Section 8, Exposure Controls / Personal Protection

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure

Inhalation
Skin Contact
Eye Contact

Inhalation

Inhalation of vapor or mist can cause the following:
- irritation of nose and throat

Eye Contact

Material can cause the following:
- corrosion to eyes - irreversible eye injury

Skin Contact

Skin irritation effects can be delayed for hours.
Material can cause the following:
- corrosion to the skin - burns - allergic contact dermatitis



Ingestion

Material is harmful if swallowed.

4. FIRST AID MEASURES

Inhalation

Move subject to fresh air.

Eye Contact

IMMEDIATELY flush eyes with a large amount of water for at least 15 minutes. Get prompt medical attention.

Skin Contact

Wash affected skin areas thoroughly with soap and water immediately after exposure. Remove and wash contaminated clothing thoroughly. Do not take clothing home to be laundered. Discard contaminated shoes, belts and other articles made of leather. Get prompt medical attention.

Ingestion

If swallowed, give 2 glasses of water to drink. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person.

Note to Physician

MATERIAL IS CORROSIVE. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Point	Not Applicable
Auto-ignition Temperature	Not Applicable
Lower Explosive Limit	Not Applicable
Upper Explosive Limit	Not Applicable

Unusual Hazards

Combustion has the potential to generate toxic fumes of the following:
- hydrogen chloride - nitrogen oxides - sulfur oxides

Extinguishing Agents

Use extinguishing media appropriate for surrounding fire.

Personal Protective Equipment

Wear self-contained breathing apparatus (pressure-demand NIOSH approved or equivalent) and full protective gear.



Special Procedures

Use water spray to cool containers exposed to fire. Minimize exposure. DO NOT breathe fumes. Contain run-off.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection

Wear a NIOSH approved (or equivalent) respirator (with organic vapor/ acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material.

MATERIAL IS CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures, for further information.

Procedures

WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Absorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See SECTION 13, "Disposal Considerations", for information regarding the disposal of contained materials.

7. HANDLING AND STORAGE

Storage Conditions

The maximum recommended storage temperature for this material is 55C/131F. The minimum recommended storage temperature for this material is 0C/32F. Store in a well ventilated area.

Do not store this material in containers made of the following:

- steel

Handling Procedures

This material is corrosive. See SECTION 8, Exposure Controls/Personal Protection, prior to handling.

Other

CONTAINERS HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue (vapors and/or liquid) follow all MSDS and label warnings even after container is emptied.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Information

No		CAS REG NO	WEIGHT (%)
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Comp. No.	Units	ROHM AND HAAS		OSHA		ACGIH	
		TWA	STEL	TWA	STEL	TWA	STEL
1	mg/m3	0.076	0.23	None	None	None	None
2	mg/m3	1.5	4.5	None	None	None	None
3		None	None	None	None	None	None
4		None	None	None	None	None	None
5		None	None	None	None	None	None
6		None	None	None	None	None	None

Respiratory Protection

Typical use of this material does not result in workplace exposures that exceed the exposure limits listed in the "Exposure Limit Information" Section. For those special workplace conditions where the listed exposure limits are exceeded, a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. For concentrations up to 10 times the exposure limit, wear a properly fitted NIOSH approved (or equivalent) half-mask or full facepiece air purifying respirator equipped organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

For those unlikely situations where exposure may greatly exceed the listed exposure limits (i.e. greater than 10-fold), or in any emergency situation, wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode or a full facepiece airline respirator in the pressure demand mode with emergency escape provision.

See SECTION 6, Accidental Release Measures, for respirator and protective clothing requirements for spill clean-up and decontamination of this material.

Eye Protection

Use chemical splash goggles and face shield ([ANSI Z87.1](#) or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection

NOTE: Material is a potential skin sensitizer.

The glove(s) listed below provide protection against permeation:

- Nitrile
- Butyl rubber

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Rinse and remove gloves immediately after use. Wash hands with soap and water.



Other Protection

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation)

Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Color</u>	<u>Dark Blue</u>
<u>State</u>	<u>Liquid</u>
<u>Odor Characteristic</u>	<u>Mild, inoffensive odor</u>
<u>pH</u>	<u>5.5 to 8.0</u>
<u>Viscosity</u>	<u>3 CPS @ 25°C/77°F</u>
<u>Specific Gravity (Water = 1)</u>	<u>1.19</u>
<u>Vapor Density (Air = 1)</u>	<u>0.62 Estimate</u>
<u>Melting Point</u>	<u>-3°C/27°F</u>
<u>Boiling Point</u>	<u>100°C/212°F Estimate</u>
<u>Solubility in Water</u>	<u>Completely soluble</u>
<u>Percent Volatility</u>	<u>71 to 73 % Water</u>
<u>Evaporation Rate (BAC = 1)</u>	<u>< 1</u>

Vapor Pressure:

- Component No. 1 = 0.00027 mmHg (Estimated)
- Component No. 2 = 4.4 X 10⁻⁶ mmHg (Estimated)

See Section 5, Fire Fighting Measures

10. STABILITY AND REACTIVITY

Instability

This material is considered stable under specified conditions of storage, shipment and/or use. See SECTION 7, Handling And Storage, for specified conditions.

Hazardous Decomposition Products

Thermal decomposition may yield the following:
 - hydrogen chloride - sulfur dioxide - oxides of nitrogen

Hazardous Polymerization

Product will not undergo polymerization.



Incompatibility

Avoid contact with the following:
- oxidizing agents - reducing agents - amines - mercaptans

11. TOXICOLOGICAL INFORMATION

Acute Data

Acute Oral LD50, rat: 3310 mg/kg formulation (female)
>5000 mg/kg formulation (male)
Acute Dermal LD50, rabbit: >5000 mg/kg formulation
Skin Irritation - rabbit: Corrosive (product)
Eye Irritation - rabbit: Corrosive (product)
Acute 4 Hr Inhalation - rat: 0.33 mg/L ai

Carcinogenicity Data

Carcinogenicity: Non-carcinogenic in both a mouse dermal and rat oral carcinogenicity study.

Mutagenicity Data

Mutagenicity: Collective data indicate non-mutagenic

Reproductive/Teratology Data

Teratogenicity: Not teratogenic

Sensitization Data

Sensitization: Skin sensitizer

12. ECOLOGICAL INFORMATION

Octanol/Water Coefficient = 0.401 (log P) for Component No.1
Octanol/Water Coefficient = -0.486 (log P) for Component No.2

Biodegradation (aquatic metabolism):
Component No. 1 t 1/2 anerobic = 4.8 hr
Component No. 1 t 1/2 aerobic = 17.3 hr
Component No. 2 t 1/2 aerobic = 9.1 hr

Environmental Toxicity

Acute Fish 96 Hr LC50, Rainbow Trout: 0.19 mg/L ai
Acute Fish 96 Hr LC50, Bluegill Sunfish: 0.28 mg/L ai
Acute Daphnia 48 Hr EC50: 0.16 mg/L ai
Acute Algal EC50, Selenastrum: 18 ug/L ai
Acute Algal EC50, Skeletonema: 3 ug/L ai
Activated Sludge Respiration Inhibition EC50: 4.5 mg/L ai



13. DISPOSAL CONSIDERATIONS

Procedure

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. (See 40 CFR 268)

14. TRANSPORT INFORMATION

US DOT Hazard Class (CLASS) 8 (CORROSIVE MATERIAL)

This classification is the primary hazard class only. Exceptions in CFR 49 Parts 171-177 may apply. Consult CFR 49 Parts 171-177 to determine the appropriate subsidiary hazard class(es).

15. REGULATORY INFORMATION

Workplace Classification

This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is subject to regulation under the Canadian Pest Control Products Act (P.C.P. Act). Therefore, this product is excluded from the supplier labeling and material safety data sheet requirements as specified in Section 12 of the Hazardous Products Act.

SARA TITLE 3: Section 311/312 Categorizations (40CFR 370)

This product is a hazardous chemical under 29CFR 1910.1200, and is categorized as an immediate and delayed health hazard.

SARA TITLE 3: Section 313 Information (40CFR 372)

This product contains a chemical which is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present: (Quantity present is found elsewhere on this MSDS.)

- Magnesium nitrate (10377-60-3) as nitrate compound
- Copper citrate (65330-59-8) as copper compound

CERCLA Information (40CFR 302.4)

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

Waste Classification

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

United States

This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from U.S. Toxic Substances Control Act (TSCA) Inventory listing requirements.



16. OTHER INFORMATION

Rohm and Haas Hazard Rating		Scale
Toxicity	3	4=EXTREME
Fire	0	3=HIGH
Reactivity	0	2=MODERATE
Special	C	1=SLIGHT
		0=INSIGNIFICANT
		C=CORROSIVE

Ratings are based on Rohm and Haas guidelines, and are intended for internal use.

HMIS Hazard Ratings

HMIS Hazard Ratings: HEALTH = 3, FLAMMABILITY = 0, REACTIVITY = 0.

PERSONAL PROTECTION: See Section 8, Exposure Controls/Personal Protection for recommended handling of material as supplied; check with supervisor for your actual use condition.

Scale: 0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

* = Chronic Effects (See Section 3, Hazards Identification)

HMIS is a registered trademark of the National Paint and Coatings Association.

ABBREVIATIONS:

- ACGIH = American Conference of Governmental Industrial Hygienists
- OSHA = Occupational Safety and Health Administration
- TLV = Threshold Limit Value
- PEL = Permissible Exposure Limit
- TWA = Time Weighted Average
- STEL = Short-Term Exposure Limit
- BAC = Butyl acetate

Bar denotes a revision from previous MSDS in this area.

The information contained herein relates only to the specific material identified. Rohm and Haas Company believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. Rohm and Haas Company urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.