



# MATERIAL SAFETY DATA SHEET

## Rohm and Haas Company

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

KATHON® LM Microbicide

Product Code : 62392  
Key : 889982-8

MSDS Date : 09/09/98

**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

No.		CAS REG NO.	WEIGHT(%)
1	2-n-Octyl-4-isothiazolin-3-one . . . . .	26530-20-1	5 - 6
2	Propylene glycol . . . . .	57-55-6	94 - 95
3	Related reaction products . . . . .	Not Required	< 0.1

See SECTION 8, Exposure Controls / Personal Protection

### 3. HAZARDS IDENTIFICATION

#### Primary Routes of Exposure

Inhalation  
Dermal Absorption  
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

This material can be harmful if absorbed through the skin.  
Material can cause the following:  
- corrosion to the skin

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CONTINUATION

Ingestion

Material is harmful if swallowed.

Delayed Effects

Material can cause the following:  
- allergic contact dermatitis

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4. FIRST AID MEASURES

Inhalation

Move subject to fresh air. Give artificial respiration if breathing has stopped.

Eye Contact

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

Skin Contact

IMMEDIATELY get under a safety shower. 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. Measures against circulatory shock and convulsions may be necessary.

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5. FIRE FIGHTING MEASURES

Flash Point . . . . .	107°C/225°F Estimate
Auto-ignition Temperature . . . . .	371°C/700°F Propylene glycol
Lower Explosive Limit . . . . .	2.6% Propylene glycol
Upper Explosive Limit . . . . .	12.5% Propylene glycol

Unusual Hazards

Combustion generates toxic fumes of the following:  
- nitrogen oxides - sulfur oxides



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**CONTINUATION**  
**Extinguishing Agents**

Use the following extinguishing media when fighting fires involving this material:  
- carbon dioxide - dry chemical - water spray

**Personal Protective Equipment**

Wear self-contained breathing apparatus (pressure-demand MSHA/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.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal Protection**

Wear a MSHA/NIOSH approved (or equivalent) positive pressure self-contained breathing apparatus or a full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Wear compatible, chemically resistant gloves.

MATERIAL IS CORROSIVE. If exposed to material 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.

Protective clothing made of the following material should be worn to avoid skin contact:

- butyl rubber - nitrile

For further information see SECTION 8, Exposure Controls/Personal Protection.

**Procedures**

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Decontaminate spill area with a solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Rinse decontaminated solution to a chemical sewer after standing for 30 minutes. See SECTION 13, Disposal Considerations, for information regarding the disposal of contained spills.

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**7. HANDLING AND STORAGE**

**Storage Conditions**

The maximum recommended storage temperature for this material is 37C/100F. 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

CONTINUATION  
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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Component		ROHM AND HAAS		OSHA		ACGIH	
No.	Units	TWA	STEL	TWA	STEL	TWA	STEL
1	mg/m3	0.2	0.6	None	None	None	None
2	ppm	175	None	None	None	None	None
3		None	None	None	None	None	None

Respiratory Protection

A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in 'Exposure Limit Information'.

Up to 5 times the TWA/TLV: Wear a MSHA/NIOSH approved (or equivalent) half-mask, air-purifying respirator.

Up to 100 times the TWA/TLV or Unknown: Wear a MSHA/NIOSH approved (or equivalent) self-contained breathing apparatus in the positive pressure mode,  
OR,  
MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Air-purifying respirators should be equipped with MSHA/NIOSH approved (or equivalent) cartridges for protection against organic vapors and filters for protection against dusts and mists.

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.



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**CONTINUATION**  
**Hand Protection**

NOTE: Material is a potential skin sensitizer.

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection:

- Butyl rubber
- Nitrile

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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Clear
Color	Pale yellow
State	Liquid
Odor Characteristic	Sweet odor
pH	2.4 10% Solution
Viscosity	40 CPS @ 20°C/68°F
Specific Gravity (Water = 1)	1.038 @ 20°C/68°F Estimate
Vapor Density (Air = 1)	> 1
Vapor Pressure	0.1 mm Hg @ 25°C/77°F Propylene glycol
Melting Point	-48°C/-54°F
Boiling Point	188°C/370°F
Solubility in Water	Highly soluble
Percent Volatility	95%
Evaporation Rate (BAc = 1)	< 1

See SECTION 5, Fire Fighting Measures

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## 10. STABILITY AND REACTIVITY

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### 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:  
- sulfur dioxide - oxides of nitrogen

### Hazardous Polymerization

Product will not undergo polymerization.

### Incompatibility

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

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Data

Acute Oral LD50, rat: > 5000 mg/kg formulation  
Acute Dermal LD50, rabbit: > 2000 mg/kg formulation  
Acute 4 Hr Inhalation, rat: > 1.95 mg/L formulation  
Skin Irritation - rabbit: Corrosive (product)  
Eye Irritation - rabbit: Corrosive (product)

### Carcinogenicity Data

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

### Mutagenicity Data

Mutagenicity: Non-mutagenic

### Reproductive/Teratology Data

Teratogenicity: Not teratogenic

### Sensitization Data

Sensitization: Skin sensitizer



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## 12. ECOLOGICAL INFORMATION

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### Fate in the Environment

Octanol/Water Coefficient . . . . . 2.45 (log P)

### Environmental Toxicity

Acute Fish 96 Hr LC50, Rainbow Trout: 0.047 mg/L ai  
Acute Fish 96 Hr LC50, Bluegill Sunfish: 0.18 mg/L ai  
Acute Daphnia 48 Hr EC50: 0.32 mg/L ai  
Acute Agal EC50, Selenastrum: 0.015 mg/L ai

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## 13. DISPOSAL CONSIDERATIONS

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### Procedure

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

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## 14. TRANSPORT INFORMATION

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■ US DOT Hazard Class . . . . . NONREGULATED

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## 15. REGULATORY INFORMATION

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### 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 does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

### 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 com-

CONTINUATION

mittees 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	1	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.

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.

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