



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

ROCIMA™ 200 MICROBICIDE

Revision Date: 09/26/2012

Supplier ROHM AND HAAS CHEMICALS LLC
A Subsidiary of The Dow Chemical Company
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399 United States

For non-emergency information contact: 215-592-3000

Emergency telephone number
1 800 424 9300

Local emergency telephone number
989-636-4400

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Dichloro-2-n-octyl-4-isothiazolin-3-one	64359-81-5	18.0 - <= 20.0 %
Glycol(s)	Trade Secret	15.0 - <= 18.0 %
Metallic salt	Trade Secret	4.0 - <= 6.0 %
Clay	Not Hazardous	4.0 - <= 6.0 %
Titanium dioxide	13463-67-7	1.0 - 3.0 %
Water	7732-18-5	50.0 - <= 54.0 %

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

Form paste
Form Flowable
Colour amber
Colour blue

Odour Typical

Hazard Summary**DANGER!**

Corrosive
Causes severe eye/skin burns.
May cause sensitization by skin contact.
Irritating to respiratory system.
Prolonged or repeated overexposure to titanium dioxide may cause lung effects.

Potential Health Effects**Primary Routes of Entry:**

Inhalation
Eye contact
Skin contact

Eyes: Material can cause the following:
corrosion to eyes
May cause permanent eye injury.

Skin: Material can cause the following:
corrosion to the skin
burns
May cause sensitization of susceptible persons by skin contact.

Ingestion: May be harmful if swallowed.

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

Chronic Exposure: Prolonged or repeated overexposure to titanium dioxide may cause lung effects.

Carcinogenicity

Component	List	Classification
Clay	IARC	Human carcinogen.
Titanium dioxide	IARC	Possible human carcinogen

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

Skin contact: IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion: Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person.

Notes 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 maybe necessary.

5. FIREFIGHTING MEASURES

Flash point	>100 °C (212 °F) ISO 2592
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Specific hazards during firefighting: Combustion generates toxic fumes of the following: hydrogen chloride nitrogen oxides (NOx) sulfur oxides

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

Further information: Cool containers / tanks with water spray.
Minimize exposure.
Do not breathe fumes.
Contain run-off.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

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.

Environmental precautions

Do not allow material to contaminate ground water system.
Prevent product from entering drains.

Methods for cleaning up

WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for recovery or disposal. Wipe contaminated area with TEXANOLsuper® (2,2,4-trimethyl-1,3-pentanediol monoisobutyrate) or butyl CARBITOLsuper®(diethylene glycol monobutyl ether) using a clean rag(s) or disposable pad(s) or mop(s). Isopropanol can also be used, but special care should be taken due to the flammability of this solvent. Discard contaminated wiping materials into suitable containers for recovery or disposal. Decontaminate spill area with a freshly prepared aqueous solution of 10% sodium thiosulfate. Let stand for 30 minutes. Rinse decontamination solution to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add decontamination solution to the waste pile to

deactivate the adsorbed product. See SECTION 13, Disposal Considerations, for information regarding the disposal of contained spills. TEXANOLsuper® is a trademark of Eastman Chemical Co. CARBITOLsuper® is a trademark of Union Carbide Co.

7. HANDLING AND STORAGE

Handling

This material is corrosive. For personal protection see section 8. Do not handle material near food, feed or drinking water.

Storage

Storage conditions: Keep from freezing. Keep in a well-ventilated place. Do not store this material in containers made of the following: steel Do not store this material near food, feed or drinking water.

Further information on storage conditions: CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20°C-25°C (68°F-77°F).

Storage temperature: 0 - 35 °C (32 - 95 °F)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value
Dichloro-2-n-octyl-4-isothiazolin-3-one	Rohm and Haas	TWA	0.06 mg/m3
Dichloro-2-n-octyl-4-isothiazolin-3-one	Rohm and Haas	STEL	0.1 mg/m3
Clay	ACGIH	TWA Respirable fraction	2 mg/m3
Clay	OSHA P1	TWA total dust	15 mg/m3
Clay	OSHA P1	TWA respirable fraction	5 mg/m3
Clay	OSHA P0	TWA Total	10 mg/m3
Clay	OSHA P0	TWA Respirable fraction	5 mg/m3
Clay	OSHA Z3		
Clay	NIOSH REL	TWA Respirable	5 mg/m3
Clay	NIOSH REL	TWA total	10 mg/m3
Titanium dioxide	Rohm and Haas	TWA	1.5 mg/m3
Titanium dioxide	Rohm and Haas	STEL	3 mg/m3
Titanium dioxide	ACGIH	TWA	10 mg/m3
Titanium dioxide	OSHA P1	TWA total dust	15 mg/m3
Titanium dioxide	OSHA P0	TWA Total	10 mg/m3
Titanium dioxide	NIOSH REL		

Exposure controls

Engineering measures: 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.

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

Individual protection measures

Eye/face 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.

Skin protection

Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): butyl-rubber Nitrile 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. NOTE: Material is a possible skin sensitizer.

Other protection: Wear as appropriate: Chemical resistant apron complete suit protecting against chemicals

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent 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 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 1000 ppm organic vapor: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 1000 ppm organic vapor or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and R95 or P95 filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form

paste
Flowable

Colour

amber
blue

Odour

Typical

pH

7.4

Melting point/range

0 °C (32 °F) Water

Boiling point/boiling range

100 °C (212 °F) Water

Flash point

>100 °C (212 °F) ISO 2592

Evaporation rate	<1 Water
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	17.0 mmHg at 20 °C (68 °F) Water
Relative vapour density	<1.0Water
Relative density	1.05 at 20 °C (68 °F)
Water solubility	Dilutable
Partition coefficient: n-octanol/water	log Pow: 2.8 OECD Test Guideline 107 or Equivalent
Autoignition temperature	no data available
Percent volatility	50 - 54 % Water

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Hazardous reactions	Stable under recommended storage conditions.
Materials to avoid	Avoid contact with the following: Oxidizing agents Amines Reducing agents mercaptans
Hazardous decomposition products	nitrogen oxides (NOx), Sulphur oxides, hydrogen chloride,
polymerisation	Product will not undergo polymerization.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

No data are available for this material. The information shown is based on profiles of compositionally similar materials.

Acute oral toxicity	LD50 rat 978 mg/kg
Acute dermal toxicity	LD50 rabbit > 2,000 mg/kg
Skin irritation	rabbit Corrosive
Eye irritation	rabbit Corrosive
Sensitisation	guinea pig Causes sensitization.

Reproductive toxicity

This product is not a reproductive hazard. Active ingredient

Teratogenicity

Did not show teratogenic effects in animal experiments. Active ingredient

Mutagenicity

Non-mutagenic Active ingredient

Component: Dichloro-2-n-octyl-4-isothiazolin-3-one

Acute inhalation

LC50 rat 4 Hour 0.26 mg/l OECD Test Guideline 403

toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Elimination information (persistence and degradability)**Biodegradability**

Biodegradation (Aquatic metabolism) CAS # 64359-81-5 t 1/2
anaerobic = < 1hr. CAS # 64359-81-5 t 1/2 aerobic = < 1hr.

**Physico-chemical
removability**

Activated Sludge Respiration Inhibition EC50: >5700 ug/L ai

13. DISPOSAL CONSIDERATIONS

Environmental precautions: Do not allow material to contaminate ground water system.
Prevent product from entering drains.

Disposal

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).

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

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Corrosive liquids, toxic, n.o.s.(4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one)
UN number	UN 2922
Class	8 (6.1)
Packing group	II

Classification for SEA transport (IMO-IMDG):

Proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S.(4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one)
UN number	UN 2922
Class	8 (6.1)
Packing group	II

Marine pollutant

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

15. REGULATORY INFORMATION

Workplace Classification

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

WHMIS: 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 III: Section 311/312 Categorizations (40CFR370): Acute Health Hazard
Chronic Health Hazard

SARA TITLE III: Section 313 Information (40CFR372)

SARA Title III Components: Metallic salt, as Copper compound

SARA TITLE III: Section 313 Information (40CFR372)

SARA Title III Components: Sodium copper 14025-15-1
ethylenediaminetetraacetate

CERCLA Information (40CFR302.4)

See Section 13, Disposal Considerations, Subsection Disposal, for CERCLA classification. 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.

United States TSCA Inventory (US.TSCA): All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

California (Proposition 65)

This product contains trace levels of a component or components known to the state of California to cause cancer:

Components: Cumene 98-82-8

California (Proposition 65)

This product contains trace levels of a component or components known to the state of California to cause birth defects or other reproductive harm:

Components: Methanol 67-56-1

California (Proposition 65)

This product contains a component or components known to the state of California to cause cancer:

Components: Titanium dioxide 13463-67-7

16. OTHER INFORMATION

HMIS Hazard Rating

Health	Flammability	Physical Hazard
3	1	0

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
BAC	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
	Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Version: 2.0
Print Date: 10/05/2012

Layout 101110619