Material Safety Data Sheet

MICRO BIOCIDE (RXSOL-40-4009-210)

1. Product and Company Identifaction

Product Name	BIOCIDE MICRO Cooling Water
Part Number	RXSOL-40-4009-210

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point ::: Mumbai, Kandla, Kolkata, Chennai, Vizag, Fujairah, Muscat, Nairobi

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Name of Substance	Cas Number	Weight Percentage
Glutaraldehyde	111-30-8	15 to 25
Magnesium Nitrate	10377-60-3	1.0 - 5.0
2-Methyl-4-Isothiazolin-3-one	2682-20-4	0.1 - 1.0
5-Chloro-2-Methyl-4-Isothiazolin-3-one	26172-55-4	1.0 - 5.0
Non Hazardous Proprietory Ingredient	Proprietory	75 to 85
Poly[oxyethylene (dimethyliminio) Ethylene (dimethyliminio) Ethylene Dichloride	31075-24-8	20 to 40
Dodecyl Dimetyl Proprietory Blend	Proprietory	10 to 20

3. Hazards Identification

Signal Word	Warning
Hazard Statements	H302 + H332 Harmful if swallowed or if inhaled. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects. EUH071 Corrosive to the respiratory tract
Precautionary statements - prevention	P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Precautionary statements - response	P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion:	Do not induce vomiting. Obtain medical attention.If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
Notes to Physician	Treat symptomatically

5. Fire-fighting Measures

Flammability	Non-Flammable.
Flash Point	Not Applicable.
Suitable extinguishing media	No Information Available
Hazardous combustion products	When Heated to decomposition, it emits acrid smoke and fumes.
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Not considered to be a significant fire risk.

6. Accidental Release Measures

Small Spillage	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Enviromental Precaution	Do not let product enter drains.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts

7. Handling and Storage

Handling	Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.
Storage	Light Sensitive. Refrigerate. Store in light-resistant containers. Keep containers tightly closed. Keep containers in a cool, wellventilated area.Packing : Only packagings which are approved (e.g. acc. to ADR) may be used.
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

Engineering Control	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Eye/face Protection : Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin and body protection : Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection : Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator exposure limits are exceeded or if irritation or other symptoms are experienced.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Exposure Limit	Glutaraldehyde TWA: 0.2 (ppm) [Australia] TWA: 0.75 (mg/m3) [Australia] TWA: 0.25 CEIL: 0.2 (ppm) from NIOSH CEIL: 0.2 (ppm) from OSHA (PEL) [United States] TWA: 0.05 STEL: 0.05 (ppm) [United Kingdom (UK)] Consult local authorities for acceptable exposure limits.



Gloves



Suit

9. Physical and chemical properties

Form	Liquid
Colour	Clear
Odour	Pungent
Odor Threshold	No Information Available
pH	7.5-8.5
Freezing Point	-7 °C
Boiling Point	101°C
Flash Point	None ASTM D 56
Evaporation Rate	0.8 Calculated.
Flammability (solid, gas)	No Data Available
Explosive limits	No Data Available
Vapour pressure	21 hPa at 20 °C
Vapour Density	0.7
Relative density Information	1.05-1.10 at 25 °C
Partition coefficient	No data available
Explosive properties	None
Solubility	Soluble in water
Ignition temperature	275 °C

10. Stability and reactivity

Recativity	Forms explosive mixtures with air on intense heating.
Stability	Product is stable.
Possibility of hazardous reactions	Violent reactions possible with:Amines, Strong oxidizing agents Violent polymerisation may be caused by: Strong bases, Strong acids
Conditions to avoid	Strong Heating
Incompatible materials	Aluminium, various metals, Mild steel
Hazardous Polymerization	Hazardous polymerization does not occur.

11. Toxicological information

Rout Of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animal	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 100 mg/kg [Mouse]. Acute dermal toxicity (LD50): >2500 mg/kg [Rat]. Acute toxicity of the vapor (LC50): 480 mg/m 4 hours [Rat]. 3
Toxic Effects on Humans	CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH [Glutaraldehyde]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Glutaraldehyde]. Mutagenic for bacteria and/or yeast. [Glutaraldehyde]. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male SUSPECTED [Glutaraldehyde]. Contains material which may cause damage to the following organs: blood, the reproductive system, liver, mucous membranes, spleen, central nervous system (CNS), Urinary system.
Special Remarks on other Toxic Effects on Humans:	Potential Health Effects: Eye: Causes severe eye irritation. May cause eye injury or chemical conjunctivitis. Skin: Causes moderate to severe skin irritation. It may be absorbed through the skin, although poorly. May cause allergic contact dermatitis with itching and skin rash. May cause staining of the skin and nails to a brown or golden brown color. Ingestion: Harmful if swallowed. May cause severe irritation of the digestive tract with burning sensation in the chest, abdominal pain, cramping, vomiting, diarrhea (perhaps bloody diarrhea), vascular collapse, and coma. May also affect liver (increased liver enzymes, liver damage), spleen, blood (normocytic anemia), metabolism (weight loss), behavior (somnolence, excitement, dizziness, lethargy, ataxia, seizures), metabolism (weight loss), urinary system (abnormal reneal function, anuria) Inhalation: Harmful if inhaled. Can cause respiratory tract irritation and sudden headaches.

12. Ecological information

Eco Toxicity	Not Available
COD and BOD 5	Not Available
Products of Biodegradation:	No Information available
Mobility in soil	No Information available
Results of PBT and vPvB assessment	Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not conducted..
Other adverse effects	Discharge into the environment must be avoided.

13. Disposal considerations

Waste Treatment Method	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

14. Transport information

DOT

UN Number	UN 3265
Proper shipping name	CORROSIVE LIQUID, N.O.S. (GLUTARDIALDEHYDE SOLUTION)
Hazard Class	8
Packing group	III

TDG

UN Number	UN 3265
Proper shipping name	CORROSIVE LIQUID, N.O.S. (GLUTARDIALDEHYDE SOLUTION)
Hazard Class	8
Packing group	III

IATA

UN Number	UN 3265
Proper shipping name	CORROSIVE LIQUID, N.O.S. (GLUTARDIALDEHYDE SOLUTION)
Hazard Class	8
Packing group	III

IMDG/IMO

UN Number	UN 3265
Proper shipping name	CORROSIVE LIQUID, N.O.S. (GLUTARDIALDEHYDE SOLUTION)
Hazard Class	8
Packing group	III

15. Regulatory information

Fedral and State Regulation	Pennsylvania RTK: Glutaraldehyde Florida: Glutaraldehyde Massachusetts RTK: Glutaraldehyde New Jersey: Glutaraldehyde California Director's list of Hazardous Substances: Glutaraldehyde TSCA 8(b) inventory: Glutaraldehyde; Water TSCA 8(a) PAIR: Glutaraldehyde TSCA 8(d) H and S data reporting: Glutaraldehyde: 9/30/91 to 9/30/01
Other Regulation	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
WHMIS (Canada)	CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC). CLASS E: Corrosive liquid.

DSCL (EEC)	R36- Irritating to eyes. S2- Keep out of the reach of children. S24/25- Avoid contact with skin and eyes. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS

Health Hazard	: 1
Fire Hazard	: 0
Reactivity	: 0
Personal Protection	: H

Fire :

Health Hazard	: 1
Fire Hazard	: 0
Reactivity	: 0
Specific Hazard	: H

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if RX Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.