Material Safety Data Sheet

BIOCIDE - BIOSPERSE (RXSOL-40-4092-025)

1. Product and Company Identifaction

Product Name	RXSOL-40-4092-025
Product Type	BIOCIDE - BIOSPERSE

Company Details:

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

Stock: Mumbai, Kandla, Kolkata, Vishakhapatnam, Chennai, Fujairah, Muscat, Kenya, Canada

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

2. Composition / informationon ingredients

Ingredient(S)	CAS Number	% (by weight)
MAGNESIUM NITRATE	10377-60-3	1.0- 7.0
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-0NE	26172-55-4	1.1
MAGNESIUM CHLORIDE	7786-30-3	0.4- 5.0
2-METHYL-4-ISOTHIAZOLIN-3-0NE	2682-20-4	0.4
CUPRIC NITRATE	3251-23-8	0.1- 0.2

3. Hazards Identification

Potential Health Effects

Eye

Can cause permanent eye injury. Symptoms include stinging,tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

Skin

Can cause permanent skin damage. Symptoms may include redness,burning, and swelling of skin, burns, and other skin damage.Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering,scaling and other skin effects), Passage of this material into the body through the skin is possible, and skin contact may be harmful.

Swallowing

Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation

Breathing this material may be harmful or fatal.Symptoms of Exposure Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: skin rash, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), cough, choking.

Target Organ Effects

No data

Developmental Information

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

Cancer Information

This material is not listed as a carcinogen by the InternationalAgency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects

No data
Primary Route(s) of Entry
Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

4. First Aid Measures

Eyes

If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing

Seek immediate medical attention. Do not induce vomiting.Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), eye.

5. Fire-fighting Measures

Flash Point :Not applicable

Explosive Limit : Not applicable

Autoignition Temperature : No data

Hazardous Products of Combustion May form: hydrogen chloride, nitrogen oxides, sulfur oxides.

Fire and Explosion Hazards : No data

Extinguishing Media : No data

Fire Fighting Instructions Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS. No special precautions necessary when fighting fires involving this product. .

NFPA Rating
Health - 3, Flammability - 0, Reactivity - 0

6. Accidental Release Measures

Small Spill

Absorb liquid on material. Scoop disposal. vermiculite, floor absorbent or other absorbent or scrape up. Put in container for recovery or

Large Spill

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Dike to prevent spreading. Absorb with inert material.The absorbent (and surface soil to a depth sufficient to remove all microbiocide) is then shoveled into a pail or drum and treated with enough decontaminant solution to wet the solid thoroughly. Let these containers stand open for 48 hours to avoid the buildup of pressure, then seal and dispose of by burying as landfill. The decontaminated area is washed with additional decontaminant solution and then flushed into a chemical or municipal sewer. Do not discharge spills and cleaning runoffs into open bodies of water. Remove clothing promptly; launder before reuse. Wash skin with soap and water. Decontaminant solution: sodium bisulfite solutions (about 11% solids content) decompose the product rapidly. Laboratory tests indicate that the microbiocide is almost completely deactivated within 30 minutes when treated with at least 4 equivalents of decontaminating solution. A volume ratio of 20/1 decontaminant/active microbiocide is recommended.

The following solutions are acceptable decontaminants: Ingredient: sodium metabisulfite (weight = 1 pound) + water(weight = 8 pounds). Total 9 pounds. Solids content = 11.1%. pH = 4.2. Ingredient: sodium bisulfite (weight 1 pound + water (weight 8.3 pounds). Total 9.3 pounds. Solids content = 10.7%. pH = 4.2. Ingredient: sodium sulfite (weight = 1 pound) + water (weight = 7 pounds) + hydrochloric acid (37%) (weight = 0.67 pounds). Total 8.67 pounds. Solids content = 9.5%. pH = 5-5.5. Note: Decontaminant solution must have pH on the acid side; since it is much less effective when alkaline. In converting sodium sulfite to the bisulfite, dissolve the salt in water and slowly add the acid with good agitation to prevent liberation of sulfur dioxide caused by local excess of acid. Keep containers of decontaminant solution closed or covered to reduce accumulation of sulfur dioxide in the workplace (ACGIH Threshold Limit Value: 2 ppm). The solutions should be made fresh as needed. Personnel making up or handling decontaminant solutions should wear goggles or face shield and rubber gloves.

7. Handling and Storage

Handling

Containers of this emptied containers solid), all hazard observed. material may be hazardous when emptied. Since retain product residues (vapor, liquid, and/or precautions given in the data sheet must be

8. Exposure controls and personal protection

Eye Protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection

Wear resistant gloves such as: nitrile rubber, butyl rubber, Wear normal work clothing covering arms and legs. Wear chemical-resistant apron, or in emergency conditions, chemical-resistant clothing and boots. Other protective equipment: eyewash station, emergency shower.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust)
ventilation to maintain exposure below TLV(s).
Exposure Guidelines
Component

MAGNESIUM NITRATE (10377-60-3)
No exposure limits established
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-0NE (26172-55-4)
OTHER LIMIT 0.076 mg/m3 - TWA
OTHER LIMIT 0.230 mg/m3 - STEL
MAGNESIUM CHLORIDE (7786-30-3)
No exposure limits established
2-METHYL-4-ISOTHIAZOLIN-3-0NE (2682-20-4)
OTHER LIMIT 1.500 mg/m3 - TWA
OTHER LIMIT 4.500 mg/m3 - STEL
CUPRIC NITRATE (3251-23-8)
No exposure limits established
~

9. Physical and chemical properties

Boiling Point :	No data
Vapor Pressure :	No data

Specific Vapor Density :	> 1.000 @ AIR=l
Specific Gravity :	1.010 - 1.030 @ 77.00 F
Liquid Density :	8.400 - 8.570 lbs/gal @ 77.00 F
Percent Volatiles :	85.0 - 100.0 %
Volatile Organic Compounds (VOC):	.010 %
Evaporation Rate :	
Appearance :	CLEAR
State :	LIQUID
Physical Form :	HOMOGENEOUS SOLUTION
Color :	LIGHT GREEN YELLOW
Odor :	No data
pH :	2.0 - 5.0

10. Stability and reactivity

Hazardous Polymerization : Product will not undergo hazardous polymerization.

Hazardous Decomposition May form: hydrogen chloride, nitrogen oxides, sulfur oxides.

Chemical Stability :Stable.

Incompatibility Avoid contact with: agents. amines, reducing agents, strong oxidizing

11. Toxicological information

LD 50 and LC 50 Data

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-0NE (CAS# 26172-55-4)
Oral LD50 (rat): 3864 mg/kg
Dermal LD50: Not available
Inhalation LC50: Not available

12. Ecological information

Ecotoxicological Information

This material (or a component) is toxic to fish and aquatic organisms.Contact your sales representative for additional information.

13. Disposal considerations

Waste Management Information

Deposit in a landfill in accordance with local, state and federal regulations.

14. Transport information

DOT Information - 49 CFR 172.101

DOT Description: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.,8,UN3265,II

Container/Mode: 55 GAL DRUM/TRUCK PACKAGE

NOS Component: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-0NE

RQ (Reportable Quantity) - 49 CFR 172.101 : Not applicable

Other Transportation Information : The Transport Information may vary with the container and mode of shipment.

15. Regulatory information

US Federal Regulations
CERCLA RQ - 40 CFR 302.4(a)
Component RQ (lbs)

CUPRIC NITRATE 100
CERCLA RQ - 40 CFR 302.4(b)

This material has a RQ of 100 lbs as a DO02 Corrosive
unlisted hazardous substance.

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2 Immediate (X) Delayed() Fire() Reactive() Release of Pressure ( ) Sudden

SARA 313 Components - 40 CFR 372.65 : None

OSHA Process Safety Management 29 CFR 1910 : None listed

EPA Accidental Release Prevention 40 CFR 68 : None listed

International Regulations Inventory Status DSL (CANADA) The intentional ingredients of this product are listed. EINECS (EUROPE) This product complies with the Chemical Substance Inventory requirements.

State and Local Regulations California proposition 65 The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer. LEAD

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm. LEAD

16. Other information

It is a violation of federal law to use this product in a manner inconsistent with its labeling. The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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.