Material Safety Data Sheet

RXSOL 2000 Corrosion Inhibitor (RXSOL-40-2000-025)

1. Product and Company Identifaction

Product Name	:	**RXSOL-2000**
Product Type	:	COOLING WATER CORROSION INHIBITOR-RXSOL-40-2000-025

Company Details:

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

STOCK POINTS: Mumbai, Gandhidham, Kolkata, Chennai, Vishakhapatnam, Fujairah, Oman, Nairobi

Phone	:	+91 22 27815540 / 41 / 42
Fax	:	+91 22 2781 1318 :::AOH :0091 9821214367
Email	:	mail@rxmarine.com

2. Composition / informationon ingredients

Chemical Name	Concentration	CAS Number	EC Number	R Phrases*
Sodium Nitrite	1-5	7632-00-0	231-555-9	8, 25, 50
Sodium Tetraborate	2-3	1330-43-4	215-540-4	60, 61
Sodium Metasilicate	1-5	6834-92-0	229-912-9	34, 37
Sodium Mercaptobenzothiazole	>1	2492-26-4	219-660-8	34, 43

Properitory 60-70%

This product also contails Benzotriazole, which is very effective effective corrosion inhibitor for copper and its alloys by preventing undesirable surface reactions. It is known that a passive layer, consisting of a complex between copper and benzotriazole, is formed when copper is immersed in a solution containing benzotriazole. The passive layer is insoluble in aqueous and many organic solutions. There is a positive correlation between the thickness of the passive layer and the efficiency of preventing corrosion. The exact structure of the copper-BTA complex is controversial and many proposals have been suggested.

*See Section 16

3. Hazards Identification

Odour	Odourless
Appearance	Redis to Pink, soluble in water
Contact with eyes	May cause pain

Contact with skin	In cases of severe exposure, severe irritation may develop
Inhalation	Vapours or aerosols may cause irritation of eyes, nose and respiratory tract
Ingestion	Toxic if swallowed (R25)

4. First Aid Measures

Contact with skin	Remove contaminated clothing immediately and drench affected skin with plenty of water ontaminated clothing should be laundered before reuse When in doubt or symptoms persist, seek medical attention
Contact with eyes	If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes Irrigate eyes thoroughly whilst lifting eyelids Obtain immediate medical attention
Ingestion	Never make an unconscious person vomit or drink fluids Give water or milk to drink Induce vomiting (only if patient is conscious) Obtain immediate medical attention
Inhalation	Inhalation is unlikely to occur Remove patient to fresh air. When in doubt or symptoms persist, seek medical attention
General	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

5. Fire-fighting Measures

- Nitrogen oxides may be formed.
- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions.
- Substance evolves toxic fumes, wear self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precautions	Wear protective clothing as per section 8
Environmental Precautions	Do not allow to enter public sewers and watercourses
Immediate Actions	Use appropriate containment to avoid environmental contamination (S57)
Clean Up Actions	Absorb spillage in inert material and shovel up .Ventilate the area and wash spill site after material pick-up is complete
Special Precautions	Wear protective clothing as per section 8

7. Handling and Storage

Handling	Wear protective clothing as per section 8.Avoid contact with skin and eyes (S24/25) Eyewash bottles should be available

Storage	Keep only in the original container in a cool, well ventilated place (S3/9/49) Protect from heat Protect from frost

8. Exposure controls and personal protection

Exposure controls	No special precautions are required for this product.
Occupational exposure controls	Wear suitable protective clothing, including eye/face protection and gloves (plastic or rubber are recommended)

9. Physical and chemical properties

Odour	Odourless
Appearance	Redish to Pink Liquid, soluble in water
pH	11.3 to 11.8 at 100 % concentration
Boiling point	100 °C at 760 mm /Hg
Vapour pressure	not known
Vapour density	not applicable
Freezing point	0 °C at 760 mm/Hg

Completely soluble in water

Specific gravity (water=1) 1.1 to 1.25

10. Stability and reactivity

- This article is considered stable under normal conditions
- Avoid contact with acid
- Incompatible with acid, Contact with acids liberates toxic gas (R31)
- See Section 5

11. Toxicological information

Information on toxicological effects

- LD50 (oral,rat) (Sodiumtetraborate) 4500-5000 mg/kg
- LD50 (oral,rat) (Sodium nitrite) 180 mg/kg

Inhalation
- Vapours or aerosols may cause irritation of eyes,
nose and respiratory tract

Contact with skin
- In cases of severe exposure, redness and irritatio
n may develop

Contact with eyes
- In cases of severe exposure, redness and irritation may develop Ingestion
- Not regarded as a potential route of exposure.

- In cases of severe exposure, cyanosis may develop
Carcinogenicity
- No evidence of carcinogenic effects
Teratogenicity
- No evidence of reproductive effects
Mutagenicity
- No evidence of mutagenic effects

12. Ecological information

Ecotoxicity
- LC50 (fish) (Sodium nitrite) 0.56-1.78 mg/l (96 hr)
- EC50 (daphnia) (Sodium nitrite) 12.5-100 mg/l (48hr)
- LC50 (fish) (Sodium tetraborate) 650 mg/l (96 hr)
- EC50 (daphnia) (Sodium tetraborate) 2130 mg/l (48hr)

Mobility in soil
- Completely soluble in water

13. Disposal considerations

Waste treatment methods

- Disposal should be in accordance with local, state or national legislation

14. Transport information

- Not classified as hazardous for transport

15. Regulatory information

Classification and labeling	Contains Benzothiazol-2-thiol. May produce an allergic reaction.
Risk Phrases	Toxic if swallowed (R25)
Safety Phrases	Wear suitable protective clothing, eye/face protection and gloves (S36/37/39) n case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) (S45).

16. Other information

Text of R and S phrase codes used in this safety data sheet:- R25: Toxic I f swallowed; R43: May cause sensitisation by skin contact; . Contact with combustible material may cause fire.The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents.The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product.In terms of safetyr equirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application (s) without seeking advice from manufacturer

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.