Material Safety Data Sheet

FERROIN SOLUTION AR 0.025 M Redox Indicator (RXSOL-60-6604-591)

1. Product and Company Identifaction

Product Name	RXSOL-60-6604-591
Product Type	FERROIN SOLUTION AR 0.025 M) Redox Indicator
Revised date	

Company Details:

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

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat Barka

Phone	+91 22 27815541 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Substance / Preparation : Preparation.
Hazardous component(s) : This product is hazardous.

Substance name	Contents	CAS No
Iron (II) sulfate (1:1) heptahydrate :	> 0.01 1 %	7782-63-0
1,10-phenanthroline :	> 1 5 %	66-71-7
Water :	> 75 99 %	7732-18-5

3. Hazards Identification

3.1. Classification of the substance or mixture
Classification EC 67/548 or EC 1999/45
Classification : R52-53 Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Environmental hazards : Hazardous to the aquatic environment - Chronic hazard
- Category 3 (CLP : Aquatic Chronic 3) H412
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : None
. R Phrase(s) : R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S Phrase(s) : S35 : This material and its container must be disposed of in a safe way
. S59 : Refer to manufacturer/supplier for information on recovery/recycling.
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets
. Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms
Signal words : None.
Hazard statements : H412 : Harmful to aquatic life with long lasting effects.
Precautionary statements
• Prevention : P273: Avoid release to the environment.
• Disposal considerations : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
3.3. Other hazards
Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH

4. First Aid Measures

4.1. Description of first aid measures
Inhalation : Assure fresh air breathing. Allow the victim to rest.
Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain , blinking or redness persist.
Ingestion : Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms relating to use : Not expected to present a significant hazard under anticipated conditions of normal use.
4.3. Indication of any immediate medical attention and special treatment needed
General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting Measures

5.1. Extinguishing media
Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.
5.2. Special hazards arising from the substance or mixture
Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
5.3. Advice for fire-fighters
Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.
6.2. Environmental precautions
Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
6.3. Methods and material for containment and cleaning up
Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
6.4. Reference to other sections
See section 8. Exposure controls/personal protection

7. Handling and Storage

7.1. Precautions for safe handling
Handling : Wash thoroughly after handling. Wash thoroughly after handling. Wash thoroughly after handling. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.
7.2. Conditions for safe storage, including any incompatibilities
Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.
7.3. Specific end use(s) Specific end use(s) : None.

8. Exposure controls and personal protection

8.1. Exposure controls
Personal protection : Avoid all unnecessary exposure.
• Respiratory protection : Wear approved mask.
• Hand protection : Wear protective gloves.

• Skin protection : Wear suitable protective clothing.
• Eye protection : Chemical goggles or safety glasses.
• Others : When using, do not eat, drink or smoke.
8.2. Control parameters
Occupational Exposure Limits : No data available

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state at 20 °C : Liquid.
Odour threshold : No data available.
pH value : No data available.
Melting point [°C] : No data available.
Decomposition point [°C] : N/A
Critical temperature [°C] : No data available.
Auto-ignition temperature [°C] : No data available.
Flammability (solid, gas) : N/A
Flash point [°C] : No data available.
Boiling point [°C] : N/A
Initial boiling point [°C] : No data available.
Final boiling point [°C] : No data available.
Evaporation rate : N/A
Vapour pressure [20°C] : No data available
Vapour pressure mm/Hg : N/A
Vapour density : N/A
Density [g/cm3] : 1,006
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : Soluble in water
Solubility in water : No data available.
Log Pow octanol / water at 20°C : No data available.
Solubility : N/A
Viscosity at 40°C [mm2/s] : No data available.
9.2. Other information
Explosive properties : N/A
Explosion limits - upper [%] : No data available.
Explosion limits - lower [%] : No data available.
Oxidising properties : No data available

10. Stability and reactivity

10.1. Reactivity
Reactivity : Not established.
10.2. Chemical stability
Chemical stability : Stable under recommended storage conditions.
10.3. Possibility of hazardous
reactions Hazardous reactions : Not established.
10.4. Conditions to avoid
Conditions to avoid : Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials
Materials to avoid : Strong acids. Strong bases.
10.6. Hazardous decomposition products
Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information

11.1. Information on toxicological effects Acute toxicity
• Inhalation : Based on available data, the classification criteria are not met
. • Dermal : Based on available data, the classification criteria are not met.
• Ingestion : Harmful if swallowed
. Corrosion : Causes serious eye damage.
Irritation : Causes skin irritation.
Sensitization : Based on available data, the classification criteria are not met.
Mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.
Toxic for reproduction : Based on available data, the classification criteria are not met.
STOT-single exposure : Based on available data, the classification criteria are not met.
STOT-repeated exposure : Based on available data, the classification criteria are not met
. Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity
Toxicity information : Not established.
12.2. Persistence - degradability
Persistence - degradability : Biodegradable.
12.3. Bioaccumulative potential
Bioaccumulative potential : Not established.
12.4. Mobility in soil
Mobility in soil : Not established.
12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.
12.6. Other adverse effects
Environmental precautions : Avoid release to the environment

13. Disposal considerations

13.1. Waste treatment method
General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

114.1. Land transport (ADR-RID)
General information : Not regulated.
14.2. Sea transport (IMDG) [English only]
General information : Not regulated.
14.3. Air transport (ICAO-IATA) [English only]
information : Not regulated.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed .
REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.
15.2. Chemical Safety Assessment
Chemical Safety Assessment : It has not been carried out.

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic
vPvB: very persistent and very bioaccumulative
Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Further information : None. In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008 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.