Material Safety Data Sheet

H2S Scavenger RX 40 Glyoxal Based (RXSOL-81-2065-250)

1. Product and Company Identifaction

Product Name	H2S Scavenger Rx 40 (Glyoxal Based)
Part Number	RXSOL-81-2065-250

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

Chemical Name	CAS Number	EC Number	Weight
Glyoxal	107-22-2	203-474-9	39 - 40%
Ethylene Glycol	107-21-1	203-474-3	1 - 2%

3. Hazards Identification

Signal Word	Warning
Hazard Statements	H320 Causes eye irritation. H315 Causes skin irritation. H332 Harmful if inhaled. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H402 Harmful to aquatic life.
Precautionary statements - prevention	P280 Wear protective gloves/protective clothing/eye protection/face protection. P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe mist or vapour. P201 Obtain special instructions before use. P273 Avoid release to the environment. P202 Do not handle until all safety precautions have been read and understood. P272 Contaminated work clothing should not be allowed out of the workplace. P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary statements - response	P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician. Storage: Store locked up. Store in a well-ventilated place. Keep cool. Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

4. First Aid Measures

General information	Remove contaminated clothing.
After inhalation	Keep patient calm, remove to fresh air, seek medical attention.
After skin contact	Wash affected areas thoroughly with soap and water. Remove contaminated clothing. Wash contaminated clothing before reuse. If irritation develops, seek medical attention.
After eye contact	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention.
After swallowing	Rinse mouth and then drink plenty of water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire-fighting Measures

Flash Point	Non Flammable
Suitable extinguishing media	water spray, foam, dry powder, carbon dioxide
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Hazards during fire Fighting	No particular hazards known.
Advice for firefighters	Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.
Further information	Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedur	Avoid contact with the skin, eyes and clothing.

Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	For large amounts: Pump off product. For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling	Ensure thorough ventilation of stores and work areas.
Storage	Suitable materials for containers: Stainless steel 1.4401, Stainless steel 1.4301 (V2), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE). Protect from air.Storage temperature: 40 °C.During the storage a product characteristic clouding or crystallin precipitation of the trimeric glyoxal hydrate may occur. The process is reversible if warmed up mild (max. 40 °C). From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced. Protect from temperatures above: 50 °C
Hygiene measures	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work

8. Exposure controls and personal protection

Components with occupational exposure limits	Ethylene Glycol ::: ACGIH TLV CLV 100 mg/m3 aerosol ; TWA value 25 ppm Vapor fraction ; STEL value 50 ppm Vapor fraction ; STEL value 10 mg/m3 Aerosol, inhalable. Glyoxal ::: ACGIH TLV TWA value 0.1 mg/m3 Inhalable fraction and vapor
Appropriate Engineering controls	Use as general industrial hygiene practice.
Personal protective equipment	Respiratory protection: Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. Wear a NIOSH-certified (or equivalent) organic vapour respirator. Hand protection: chloroprene rubber (Neoprene), nitrile rubber (Buna N), polyvinylchloride (Pylox) Eye protection: Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists. Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
General safety and hygiene measures	Work place should be equipped with a shower and an eye wash. Wear protective clothing as necessary to prevent contact. When using, do not eat, drink or smoke. Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water and soap, skin care.

9. Physical and chemical properties

Form	Fluid
Colour	Clear to light Yellow

Odour	Mild
Odor Threshold	No Data Available
pH	-50 - -15 °C
Melting/Freezing Point	20.5°C
Boiling point/Boiling range	Boiling point: 103.6 °C at 1.013 hPa - (ECHA)
Flash point	Non Flammable
Ignition temperature	Approx. 285 °C (DIN 51794)
Danger of explosion	Product does not present an explosion hazard.
Vapour pressure at 20°C	20.2 hPa
Vapour Density	No data available
Density at 20°C	1.23 - 1.27 g/cm³
Relative Density	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Water solubility at 20 °C	Completely soluble

10. Stability and reactivity

Reactivity	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	The product is chemically stable.
Conditions to avoid	Strong heating.
Incompatible materials	strong alkalies
Hazardous decomposition products	No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Acute toxicity	Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation. Oral Type of value: LD50 Species: rat (male/female) Value: 3,300 mg/kg (OECD Guideline 401)
Irritation/Corrosion	Type of value: LC50 Species: rat (male/female) Value: 2.44 mg/l (OECD Guideline 403) Exposure time: 4 h An aerosol was tested.
Dermal	Type of value: LD50 Species: rat (male/female) Value: > 2,000 mg/kg (OECD Guideline 402) Limit concentration test only (LIMIT test).

Eye	Species: rabbit Result: Irritant. Method: OECD Guideline 405
Sensitization	Guinea pig maximization test Species: guinea pig Result: sensitizing Method: OECD Guideline 406 Human Maximization Test Species: human Result: sensitizing Literature data.
Aspiration Hazard	No aspiration hazard expected.
Chronic Toxicity/Effects	Repeated dose toxicity Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. Genetic toxicity Assessment of mutagenicity: The substance was mutagenic in various test systems with microorganisms and cell cultures; however, these results could not be confirmed in tests with mammals. Mutagenic properties can not be excluded on the basis of experimental data. Carcinogenicity Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect. Reproductive toxicity Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. Teratogenicity Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.
Symptoms of Exposure	No applicable toxicity data
Medical conditions aggravated by overexposure	Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. Ecological information

Toxicity to Fish	Acute: (DIN 38412 Part 15 static) Leuciscus idus / LC50 (96 h): > 460 - 680 mg/l Nominal concentration.
Aquatic invertebrates	Acute: (Directive 79/831/EEC static) Daphnia magna/EC50 (48 h): 404 mg/l Nominal concentration.
Aquatic plants	Toxicity to aquatic plants: OECD Guideline 201 static Green algae/EC50 (72 h): > 100 mg/l Nominal concentration.
Microorganisms	Toxicity to microorganisms: OECD Guideline 209 static Activated sludge/EC20 (0.5 h): > 1,000 mg/l
Persistence and degradability	90 - 100 % DOC reduction (19 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable (according to OECD criteria).
Other adverse effects	Harmful to aquatic life.
Bioaccumulative potential	Assessment bioaccumulation potential Significant accumulation in organisms is not to be expected. Bioaccumulation potential Bioconcentration factor: 3.2, Fish (calculated)
Additional Information	Chemical oxygen demand (COD): 350 mg/g Biochemical oxygen demand (BOD) Incubation period 5 d: 175 mg/g

Mobility in soil	The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

13. Disposal considerations

Remarks	Do not discharge into waterways or sewer systems without proper authorization. Dispose of in accordance with national, state and local regulations.
Waste Disposal	Dispose as normaly as per local regultion

14. Transport information

Transport hazard class(es)

	DOT	TDG Classification	IMDG	IATA
UN Number	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
Proper shipping name	Not regulated for transport	Not regulated for transport	Not regulated for transport	2Not regulated for transport
Transport hazard class(es)	Not regulated for transport	Not regulated for transport	Not regulated for transport	Not regulated for transport
Packing Group	Not regulated for transport	Not regulated for transport	Not regulated for transport	Not regulated for transport
Environmental hazards	NO	NO	NO	NO

Marine pollutant: No

15. Regulatory information

Regulatory Information

- Section 355 (extremely hazardous substances): None of the ingredients are listedSection
- 313 (Specific toxic chemical listings): 107-21-1 ethylene glycol
- TSCA (Toxic Substances Control Act):All ingredients are listed.
- Proposition 65 : Chemicals known to cause cancer: None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for males:None of the ingredients are listed.
- Chemicals known to cause developmental toxicity: None of the ingredients are listed.
- EPA (Environmental Protection Agency) :None of the ingredients are listed.
- TLV (Threshold Limit Value established by ACGIH)
  107-22-2 glyoxal A4
  107-21-1 ethylene glycol A4
- NIOSH-Ca (National Institute for Occupational Safety and Health) : None of the ingredients are listed.

NFPA Hazard codes: Health: 2 Fire: 0 Reactivity: 0 Special:

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.