

1. Product and Company Identification

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Product Name RXSOL-19-1993-250

Product Type Silica Sol RX 30%

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Our hazard evaluation has identified the following chemical ingredient (s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section XIV for the nature of the hazard (s).

INGREDIENTS (s)	CAS #	APPROX. %
Amorphous silica	7631-86-9	30-50
Water	7732-16-5	50-70

Ingredients are listed on the TSCA Inventory of Chemical Substances. Those not identified are nonhazardous.

3. Hazards Identification

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EMERGENCY OVERVIEW:

CAUTION : May cause irritation with prolonged contact.

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Protect product from freezing.

Wear suitable protective clothing.

Not flammable or combustible.

PRIMATRY ROUTES OF EXPOSURE: Eye, Skin

EYE CONTACT: May cause irritation with prolonged contact.

SKIN CONTACT: May cause irritation with prolonged contact.

INGESTION: Not a likely route of exposure. No adverse effects expected.

INHALATION: Not a likely route of exposure. Aerosols or product mist may irritate the upper respiratory tract.

SYMPTOMS OF EXPOSURE: Acute: A review of available data does not identify any symptoms from exposure not previously mentioned.

Chronic: A review of available data does not identify any symptoms form exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: Prolong inhalation of dust containing amorphous silica can increase lung injury in individual with emphysema, asthma or other lung disorders.

HUMAN HEALTH HAZARDS ☑ CHRONIC: Prolonged inhalation of dust containing amorphous silica can increase lung injury in individuals with emphysema, asthma or other lung disorders.

4. First Aid Measures

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EYE CONTACT: Flush affected area with water. If symptoms develop, seek medical advice.

SKIN CONTACT: Flush affected area with water. If symptoms develop, seek medical advice.

INGESTION: Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. Get medical attention.

INHALATION: Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

5. Fire-fighting Measures

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FLASH POINT: Not flammable

EXTINGUISHING MEDIA: Not expected to burn. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD: Not flammable or combustible.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING: In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit

6. Accidental Release Measures

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PERSONAL PRECAUTIONS: Restrict access to areas of appropriate until clean-up operations are complete. Stop or reduce any leaks if it is safe to do so. Do not touch spilled material. Ventilate spill area if possible. Use personal protective equipment recommended in Section 8 (Exposure Controls / Personal Protection)

METHODS FOR CLEANING UP: SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area.

LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS: Do not contaminate surface water.

7. Handling and Storage

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HANDLING: Avoid eye and skin contact. Do not take internally. Use with adequate ventilation. Do not breathe vapors / gases / dust. Ensure all containers are labeled. Keep the containers closed when not in use.

STORAGE CONDITIONS: Protect product from freezing. Store the containers tightly closed. Store in suitable labeled containers.

SUITABLE CONSTRUCTION MATERIAL: HDPE (high density polyethylene). Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

8. Exposure controls and personal protection

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OCCUPATIONAL EXPOSURE LIMITS: This product contains amorphous, colloidal or fumed silica. Should the product become dried or misted such that inhalation of the material is possible, standard hygiene practices should be utilized to ensure that exposure to respirable particles is within the regulated limits.

ACGIH / TLV Substances(s) Amorphous Silica TWA: 10 mg/m³

ENGINEERING MEASURES: The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

RESPIRATORY PROTECTION: Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: Particulate filter HEPA, with a Particulate pre-filter. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

HAND PROTECTION: When handling this product, the use of chemical gloves is recommended. The choice of work glove depends on work conditions and what chemicals are handled, but we have positive experience under light handling conditions.

Using gloves made from , Neoprene, Nitrile, PVC. Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers.

SKIN PROTECTION: Wear standard protective clothing.

EYE PROTECTION: Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS: Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area.

Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

HUMAN EXPOSURE CHARACTERIZATION: Based on our recommended product application and personal protective equipment, the potential human exposure is: LOW

9. Physical and chemical properties

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Concentration	30%	
Na2o Content	% 0.31	
COLOR: Milky white	FORM: Liquid	ODOR: Odorless
SOLUBILITY IN WATER:	Completely	
SPECIFIC GRAVITY:	1.21-1.40 @ 68°C	ASTM D-1298
pH (NEAT) =	9.8-10.2	ASTM E-70
VISCOSITY:	25cps @ 77°F	ASTM D-2983
BOILING POINT:	100°C @ 760 mm Hg	ASTM D-86
FLASH POINT:	None	
Particle Size	12 nm	
Surface Area	Sq.m/gm 315	

10. Stability and reactivity

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STABILITY: Stable under normal conditions.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: Freezing temperatures.

MATERIALS TO AVOID: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Under fire conditions: None known.

11. Toxicological information

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The following results are for the product:

ACUTE ORAL TOXICITY: Rat, LD50 > 15,000 mg/kg, Non-Hazardous

PRIMARY SKIN IRRITATION: Draize Score 0.4 / 8.0, Minimally irritating

PRIMARY EYE IRRITATION: Draize Score 3.3 / 110, Practically non-irritating

SENSITIZATION: This product is not expected to be a sensitizer.

CARCINOGENICITY: None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION: Based on our hazard characterization, the potential human hazard is: LOW

12. Ecological information

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ECOTOXICOLOGICAL EFFECTS:

The following results are for the product.

ACUTE FISH RESULTS:

Species	Exposure	LC50	Test Descriptor
Bluegill Sunfish	96 hrs	>1,000 mg/l	Product
Rainbow Trout	96 hrs	>1,000 mg/l	Product

MOBILITY:

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the designed conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil / sediment in the approximate respective percentages:

Air Water Soil / Sediment