Material Safety Data Sheet

Antiscalant and Dispersant 5100 (RXSOL-33-3339-0025)

1. Product and Company Identifaction

Product Name	RO Antiscalant 2020 High Silica Inhibition
Part Number	RXSOL-33-3339-025

Company Details:
RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Name of Substance	US OSHA	GHS/EU CLP	Weight %
Acrylic Polymer Proprietary	Low Hazard	Unknown	10-20
Chelate Agent Proprietary	Corrosive	Acute Oral Toxicity, category 4 Skin irritation, category 2B Eye irritation category 2 B STOT repeated exposure category 2 /Xn Harmful; R 22-36-38; S2- 13-24-25-26-36-46 Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin. Avoid contact with	1-10

3. Hazards Identification

Physical Hazards Summary	None
Hazard StatementsPotential Health Hazards Summary	Acute Oral Toxicity, category 4 Skin irritation, category 2B Eye irritation category 2 B STOT repeated exposure category 2
Potential Ecological Effects Summary	None
U.S. OSHA classification	Skin, eye irritant
Classification as per EC 1272/2008 (CLP/GHS)	Acute Oral Toxicity, category 4 Skin irritation, category 2B Eye irritation category 2 B STOT repeated exposure category 2 Xn Harmful
WHMIS classification	E, corrosive
General Warnings	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use
Hazard statements	H302 Harmful if swallowed H 312 Harmful in contact with skin H315 + H320 Causes skin or eye irritation
Precautionary statements	P271 Use only outdoors or in a well-ventilated area. P281 Use personal protective equipment as required. P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302/P352 IF ON SKIN: Wash with plenty of soap and water. P337 + P313 If eye irritation persists: Get medical advice/attention. P404 Store in a closed container.
Unclassified Hazards	None

Ingredients with unknown acute toxicity	None

4. First Aid Measures

Skin Contact	If this product contaminates the skin, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim should seek immediate medical attention if any adverse exposure symptoms develop.
Eye Contact	If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek medical attention.
Inhalation:	If vapors, mists, or sprays of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.
Ingestion	If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING. Have victim rinse mouth with water, if conscious. Never induce vomiting or give a diluent (e.g., water) to someone who is unconscious, having convulsions, or unable to swallow. If contaminated individual is convulsing, maintain an open airway and obtain immediate medical attention.
Most important symptoms/effects	Immediate: Inhalation exposure may cause coughing or sneezing. Symptoms of skin and eye contact may include redness and irritation. Ingestion may cause stomach pains, cramps, and gastritis. Delayed: Prolonged or repeated skin overexposure to this product may cause dermatitis (dry, red skin). Symptoms may include tingling, redness, and visible injury.
Indication Of Immediate Medical Attention And Special Treatment Needed, If Necessary:	TARGET ORGANS: Acute: Skin, eyes. Chronic: Skin. Victims of chemical exposure must be taken for medical attention if any adverse effects occur. Rescuers should be taken for medical attention if necessary. Take a copy of label and SDS to physician or health professional with victim.

5. Fire-fighting Measures

Suitable extinguishing media	This material will not contribute to the intensity of a fire. Use extinguishing material suitable to the surrounding fire.
Specific Hazards Arising From Chemical	When involved in a fire, this material may decompose and produce irritating fumes and toxic gases (e.g., carbon monoxide, carbon dioxide, and phosphorous oxides).
Special Protective Equipment And Precautions For Fire-Fighters	Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.
Explosion Sensitivity to Mechanical Impact	Not applicable.
Explosion Sensitivity to Static Discharge	Not applicable.
Flammable properties	Non-flammable aqueous solution
Flash Point oC (oF)	Not applicable.
Autoignition Temperature oC (oF)	Upper: Not applicable. Lower: Not applicable.
Further Information	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Personal Precautions	Uncontrolled releases should be responded to by trained personnel using preplanned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area and protect people.
Protective equipment	For small releases (5 gallons), clean up spilled liquid wearing gloves, goggles, faceshield, and suitable body protection. The minimum Personal Protective Equipment recommended for response to non-incidental releases (more than 5 gallons) should be Level B: triple-gloves (neoprene gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self- Contained Breathing Apparatus.

Enviromental Precaution	Monitoring must indicate that exposure levels are below those provided in Section 3 (Composition and Information on Ingredients) and that oxygen levels are above 19.5% before anyone is permitted in the area without Self-Contained Breathing Apparatus.
Methods and materials for containment and cleaning	Soak up or wet vacuum spilled liquid. Neutralize residue with sodium bicarbonate or other neutralizing agent for dilute acids. Decontaminate the area thoroughly. Test area with litmus paper to ensure neutralization. Place all spill residues in a suitable container. Dispose of in accordance with applicable Federal, State, or local procedures, or appropriate local standards (see Section 13, Disposal Considerations).

7. Handling and Storage

Precautions for Safe Handling	All employees who handle this material should be trained to handle it safely. Open containers carefully on a stable surface. Empty containers may contain residual liquid; therefore, empty containers should be handled with care. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat or drink while handling this material. Avoid generating mists and sprays of this product. Remove contaminated clothing immediately. During equipment maintenance follow practices indicated in Section 6 (Accidental Release Measures) to decontaminate equipment or clean-up small spills. Make certain that application equipment is locked and tagged-out safely if necessary. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures or appropriate local standards.
Conditions For Safe Storage	Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials. Material should be stored in secondary containers, or in a diked area, as appropriate. Storage and use areas should be covered with impervious materials. Keep container tightly closed when not in use. If appropriate, post warning signs in storage and use areas. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.
Incompatibilities	Strong bases, amines, strong oxidizers, very strong acids, water reactive materials. It may react with metals to generate hydrogen gas. The product may release toxic gases if in contact with sulfides or sulfites.

8. Exposure controls and personal protection

Appropriate Engineering Controls	Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in this Section or as low as reasonably achievable. Ensure eyewash/safety shower stations are available near areas where this product is used.
Respiratory protection	None needed under normal conditions of use. Use NIOSH approved respirators if ventilation is inadequate to control mists or vapor. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the applicable local standards. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full-face piece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).
Eye protection	Use approved safety goggles or safety glasses, as described in OSHA 29 CFR 1910.133. Splash goggles with a faceshield may be needed if splash hazards exist.
Hand protection	Wear chemical impervious gloves (e.g., Solvex™, Neoprene).
Body protection	If needed, use body protection appropriate for task (e.g., Tyvek suit, rubber apron) to protect from splashes and sprays.



Gloves



Suit

9. Physical and chemical properties

Appearance	This product is an amber to pale yellow liquid.
Odour	N/A
Odor Threshold	N/A
pH	4.5 – 6.5
Melting Point	Similar to water
Initial Boiling Point	100
Boiling Point Range oC (oF)	N/A
Evaporation Rate	Similar to water

Flammability (solid, gas)	Non-flammable
Vapor Pressure mm Hg @ 20°C	18
Solubility (in water)	Soluble
Relative density (water = 1)	1.1 – 1.2
Viscosity	Similar to water
Oil-Water Partition Coefficient	N/A
Decomposition Temperature	N/A
How To Detect This Substance	The color and odor may act as warning properties associated with this product

10. Stability and reactivity

Recativity Hazard	Not considered reactive.
Chemical Stability	Stable.
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to avoid	Avoid mixing with incompatible materials.
Incompatible materials	Strong bases, amines, strong oxidizers, very strong acids, water reactive materials. It may react with metals to generate hydrogen gas. The product may release toxic gases if in contact with sulfides or sulfites.
Hazardous Decomposition Products	Thermal decomposition of this product may generate carbon monoxide, carbon dioxide, and phosphorus oxides.

11. Toxicological information

Potential routes of exposure	Inhalation, skin contact, eye contact
Potential effects of acute overexposure	Inhalation exposure may cause tingling, coughing, sneezing, and difficulty breathing. Symptoms of skin and eye contact may include redness and irritation. Ingestion may cause stomach pains, cramps, and gastritis.
Potential effects of chronic overexposure	Prolonged or repeated skin overexposure to this product may cause dermatitis (dry, red skin). Symptoms may include tingling, redness, and visible injury.
Symptoms of over-exposure	Immediate: Inhalation exposure may cause tingling, coughing, sneezing, and difficulty breathing. Symptoms of skin and eye contact may include redness and irritation.Ingestion may cause stomach pains, cramps, and gastritis. Delayed: Prolonged or repeated skin overexposure to this product may cause dermatitis (dry, red skin). Symptoms may include tingling, redness, and visible injury.
Conditions aggravated by overexposure	Preexisting dermatitis, other skin conditions, and respiratory conditions may be aggravated by exposures to this product.
Recommendations to physicians	Treat symptoms and eliminate exposure.
Irritation	YES This product can be irritating to contaminated tissue.
Sensitization	NO
Carcinogenicity	NO
Mutagenicity	NO
Reproductive toxicity	NO
Biological Exposure Index	N/A
Other potential health effects	Currently, there are no Biological Exposure Indices (BEIs) for any component of this product.

12. Ecological information

Ecotoxicity	No information available.
Persistence and Degradability	The components of this product decompose in soil and water.
Bioaccumulative Potential	The components of this product are not expected to bioaccumulate.
Mobility in Soil	When spilled onto soil, this product will infiltrate downward, the rate being greater with lower concentration because of reduced viscosity. During transport through the soil, this product will dissolve some of the soil material, in particular, carbonatebased materials.

Other adverse effects	This product may be harmful to aquatic life if large volumes of it are released into an aquatic environment.

13. Disposal considerations

Preparing Wastes of this Product for Disposal	Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with local regulations. This product, if unaltered by the handling, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority.
Disposal of Contaminated Packaging	Cleaned containers can be recycled or disposed of as non-contaminated waste, if authorized by your local authorities. Dispose of containers as required by local regulations.
EPA Waste Number	Not applicable.

14. Transport information

DOT

UN Number	Not applicable
Proper shipping name	Not applicable
Hazard Class	Not applicable
Packing group	Not applicable
Marine Pollutant NA Emergency Response Guide Number (2008)	Not applicable
Transport in Bulk (Annex II of MARPOL 73/78 and IBC Code)	Not applicable
Special Transport Precautions	Not applicable
National Motor Freight	#70

International Air Transport Association

UN Number	Not applicable
Proper shipping name	Not applicable
Hazard Class	Not applicable
Packing group	Not applicable
IATA Emergency Response Code	Not applicable
Excepted Quantity	Not applicable

International Maritime Organization

UN Number	Not applicable
Proper shipping name	Not applicable
Hazard Class	Not applicable
Packing group	Not applicable
Marine Pollutant NA Emergency Response Guide Number (2008)	Not applicable
Transport in Bulk (Annex II of MARPOL 73/78 and IBC Code)	Not applicable

15. Regulatory information

SARA 302 RQ	NO
SARA 302 TPQ	NO
SARA 313 LISTED	NO
SARA 311/312 ACUTE	NO
SARA 311/312 CHRONIC	YES
SARA 311/312 FIRE	NO
SARA 311/312 PRESSURE	NO
SARA 311/312 REACTIVITY	NO

EPA EXTREMELY HAZARDOUS SUBSTANCE	NO
WHMIS	E
DSL	YES
NDSL	N/A
REACH Pre-registered List	YES
TSCA	YES

16. Other information

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