

1. Product and Company Identification

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Product Name Flocculating Agents
Product Type RXSOL-17-3105-025

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Hazardous or Regulated Components:
Component Analysis Inventory

Component	CAS	CONCENTRATION
ALIPHATIC HYDROCARBON	254504001-5164	20-30
ALCOHOL ALKOXYLATES	254504001-5466	1.5-5
EDTA	6381-92-6	1-5
Proprietary Polymer	-----	30-35

3. Hazards Identification

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WARNING!

Appearance: liquid, viscous, white

Emergency Overview: Spills with be extremely slippery.

CAUTION! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential health effects:

Route of exposure:	Inhalation, skin absorption, skin contact, eye contact, ingestion
Eye contact:	May cause mild eye irritation. Symptoms include stinging, tearing, redness.
Skin contact:	May cause mild skin irritation. Symptoms may include redness and burning of skin. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.
Ingestion:	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation:	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8).
Aggravated Medical Conditions:	Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-

Symptoms:	like conditions). Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) lack of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), convulsions, coma, skin blistering.
Target Organs:	Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects.
Carcinogenicity:	This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). This product (or a component) is a petroleum-derived material. Similar materials and certain compounds occurring naturally in petroleum oils have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal. Good industrial hygiene practices are recommended to minimize exposure.
Reproductive hazard:	Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

4. First Aid Measures

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Ingestion:	Seek medical attention. If swallowed, call a physician immediately. Place individual on left side with head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. Never give anything by mouth to a drowsy or unconscious person. If possible, do not leave individual unattended.
Skin Contact:	Remove contaminated clothing and shoes without delay. Wash immediately with large amounts of water and soap. Do not reuse contaminated clothing without laundering. Get medical attention if irritation develops or persists.
Eye Contact:	If symptoms develop, move individual away from exposure and into fresh air. Rinse immediately with plenty of water while holding eyelids apart for at least 15 minutes and obtain medical advice.
Inhalation:	If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.
Notes to physician:	
Hazards:	Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.
Treatment:	No hazards which require special first aid measures.

5. Fire-fighting Measures

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Suitable Extinguishing Media:	water spray, carbon dioxide or dry chemical
Hazardous combustion products:	Carbon dioxide and carbon monoxide, Hydrocarbons, Nitrogen oxides (NOx)
Precautions for Firefighting:	Burning may produce toxic and irritant gases. When product is wet it causes a danger for slipping.

Special Protective Equipment:

Wear full firefighting torn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause rothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material ith water used for cooling purposes. Firefighters, and others exposed, wear self-contained breathing apparatus and protective suit. Wear full firefighting protective clothing. Use IOSH/MSHA approved respiratory protection.

Specific methods:

Keep containers cool by spraying with water if exposed to fire.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB.

6. Accidental Release Measures

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Personal precautions

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Material can create slippery conditions. Where exposure level is not known, wear NIOSH approved, positive pressure, self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8, wear impervious boots.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Do not allow contact with soil, surface or ground water. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

Methods For Cleaning Up

Retain and dispose of contaminated wash water. Keep in suitable, closed containers, for disposal. Contain spillage, soak up with inert absorbent and noncombustible absorbent material, (e.g. sand, silica gel, acid binder, universal binder, sawdust) and transfer to a container for disposal according to local/national regulations (see Section 13). The area should be thoroughly flushed with water and scrubbed to remove residue. If slipperiness remains, apply more drysweeping compound.

Additional advice

See Sections 7 and 8 for proper handling and protective measures and Section 13 for proper waste disposal measures. Comply with all applicable federal, state and local regulations.

7. Handling and Storage

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HANDLING

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and / or solid), all hazard precautions given in the data sheet must be observed. This material is slippery when wet. Avoid inhalation, ingestion and contact with skin and eyes. Do not eat, drink or smoke when using this product. Avoid exceeding of the given occupational exposure limits (see Section 8). Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

STORAGE

Keep container tightly closed in a dry and well-ventilated place. Keep away from food and drink. Store in original container in a cool, dry ventilated area.

Storage Temperature

41 - 86°F

Other data

Protect from frost. Stable under normal conditions.

8. Exposure controls and personal protection

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Exposure Limit Values:

ALIPHATIC HYDROCARBON		254504001-5164	
ACGIH	Time weighted average	200 mg/m ³	Non-aerosol
NIOSH	Recommended exposure limit (REL):	100 mg/m ³	

General Advice:

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls:

Occupational exposure controls:

Provide sufficient mechanical (general and / or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Avoid contact with skin and eyes. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

Respiratory protection:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHS approved respiratory protection. A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Hand protection:

Use material: Protective gloves, chemical resistant gloves

Eye protection:

Wear tightly fitting splash-proof safety goggles or face-shield if material could be misted or splashed into eyes. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection:

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Environmental exposure controls:

No data available.

9. Physical and chemical properties

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General Information:

Physical state:	liquid
Appearance:	white, viscous
Odor:	mild, hydrocarbon-like
pH:	(ca.) 3.7 @ 10 g/l
Boiling Point:	217°F/103°C
Flash point:	> 212°F/>100°C Cleveland open cup
Explosive properties: Lower / upper limits: Oxidizing properties:	
Vapor Pressure:	23.300 hPa @ 68°F / 20°C
Density:	Approximate 1.03 g/cm ³
Solubility in Water:	Soluble
Partition coefficient (n-octanol/water) Viscosity:	
Viscosity, dynamic	(>) 7 mPa.s @ 40°C
Viscosity, kinematic	(>) 7 mm ² /s @ 40°C

Relative vapor density	
Evaporation Rate:	
Thermal decomposition	

10. Stability and reactivity

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Stability:	Stable
Conditions to avoid:	Heat, flames and sparks.
Incompatible Materials:	Heat, flames and sparks. Acids, oxidizers, strong bases, strong oxidizing agents, strong reducing agents.
Hazardous decomposition products:	Carbon dioxide and carbon monoxide, hydrocarbons, nitrogen oxides
Hazardous reactions:	Product will not undergo hazardous polymerization.

11. Toxicological information

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Information on likely routes of exposure:

Inhalation, skin absorption, skin contact, eye contact, ingestion

Product:

Acute oral toxicity:	No data available
Acute inhalation toxicity:	No data available
Acute dermal toxicity:	No data available
Skin corrosion/irritation:	Result: Possibly irritating to skin.
Serious eye damage/eye irritation:	Result: Possibly irritating to eyes.
Respiratory or skin sensitization:	No data available
Target Organ Systemic Toxicant- Repeated exposure	Target Organs: Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals; mild, reversible liver effects.
Aspiration toxicity:	The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Components:

ALIPHATIC HYDROCARBON:

Acute oral Toxicity:

LD 50 Rat: > 5,000 mg/kg

Acute inhalation toxicity:

LD 50 Rat, male and female: > 5.28 mg/l

Exposure time: 4 hr.

Test atmosphere: vapour

Method: OECD Test Guideline 403

No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity:

LD 50 Rabbit: > 4,000 mg/kg

No adverse effect has been observed in acute dermal toxicity tests.

STOT ☑ single exposure:

Assessment: May cause drowsiness or dizziness.

ALCOHOLS ALKOXYLATES:

Acute oral toxicity:
LD 50 Rat: 1380 mg/kg

12. Ecological information

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Ecotoxicity:

Product:

Toxicity to fish:

LC 50 fathead minnow (*Pimephales promelas*): 11 mg/l

Exposure time: 48hr.

Toxicity of daphnia and other Aquatic invertebrates:

LC 50 Water flea (*Ceriodaphnia dubia*): 1.75 mg/l

Exposure time: 48hr.

Components:

ALIPHATIC HYDROCARBON:

Toxicity to fish: LC 50 Rainbow trout (*Oncorhynchus mykiss*) 2 - 5 mg/l

Exposure time: 96hr. Test Method: semi-static test

Test substance: WAF Method: OECD Test Guideline 203

The information given is based on data obtained from similar substances.

Toxicity of daphnia and other Aquatic invertebrates:

EL 50 Water flea (*Daphnia magna*): 1.4 mg/l

Exposure time: 48hr. Test Method: semi-static test

Test substance: WAF Method: OECD Test Guideline 202

The information given is based on data obtained from similar substances.

Toxicity to Algae:

EL50 green algae (*Pseudokirchneriella subcapitata*): >1-3 mg/l

Exposure time: 72hr. Test Method: static test

Test substance: WAF Method: OECD Test Guideline 201

The information given is based on data obtained from similar substances.

Toxicity of daphnia and other Aquatic invertebrates (Chronic toxicity):

NOEL: 0.48 mg/l

Exposure time: 21 d Test Method: semi-static test

Species: Water flea (*Daphnia magna*):

Test substance: WAF Method: OECD Test Guideline 211

The information given is based on data obtained from similar substances.

ALCOHOL ALKOXYLATES:

Ecotoxicology Assessment:

Acute aquatic toxicity: Very toxic to aquatic life.

Persistence and degradability

Product:

Biochemical Oxygen Demand (BOD): Biochemical oxygen demand 383,000 mg/l

Chemical Oxygen Demand (COD): 1,930,000 mg/l Method: Chemical Oxygen demand

Components:

ALIPHATIC HYDROCARBON:

Biodegradability: Result: Inherently biodegradable

Biodegradation: 58.6% Exposure time: 28 days

Method: OECD Test Guideline 301F

ALCOHOL ALKOXYLATES:

Biodegradability: Result: Readily biodegradable.

Bioaccumulative potential

Product:

No data available

Components:

No data available

Mobility in soil

Product:

No data available

Components:
No data available

13. Disposal considerations

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Product:
In accordance with all applicable local, state and federal regulations.

14. Transport information

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ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT /LTD. QTY.
U.S. DOT -ROAD					Not dangerous goods
U.S. DOT - RAIL					Not dangerous goods
U.S. DOT ☐ INLAND WATERWAYS					Not dangerous goods
TRANSPORT CANADA - ROAD					Not dangerous goods
TRANSPORT CANADA - RAIL					Not dangerous goods
TRANSPORT CANADA ☐ INLAND WATERWAYS					Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS					Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOC. - CARGO					Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOC. - PASSENGER					Not dangerous goods
MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES					Not dangerous goods

*ORM + ORM-D, CBL=COMBUSTIBLE LIQUID

Dangerous goods description (if indicated above) may not reflect package size, quantity, end-use or regionspecific exceptions that can be applied. Consult shipping documents for description that are specific to the shipment

15. Regulatory information

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California Prop. 65-
warnings are not required for this product based on the results of a risk assessment.

SARA Hazard Classification:
SARA 311/312:
Fire Hazard
SARA 313 Components

SARA 313:
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Notification Status:

US. TOXIC SUBSTANCES Control Act	Y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA)	Y (positive listing)
Domestic Substances List (DSL). (Can.Gaz. Part II, Vol. 133)	Y (positive listing)
Japan. Kashin-Hou Law List	n (negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	Y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	Y (positive listing)
New Zealand, Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	Y (positive listing)

China. Inventory of Existing Chemical Substances	Y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	Y (positive listing)

HMIS / NFPA	HEALTH	FLAMMABILITY	REACTIVITY	other
	1	1	0	No data

OTHER INFORMATION:

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information.

The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely.

List of abbreviations and acronyms that could be, but not necessarily are, used in the safety data sheet:

ACGIH: American Conference of Industrial Hygienists

BEI: Biological Exposure Index

CAS Chemical: Abstracts Service (Division of the American Chemical Society)

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

CMR: Carcinogenic, Mutagenic or Toxic for Reproduction

DOT: Department of Transportation

FG: Food grade

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

H-statement: Hazard Statement

HMIRC: Hazardous Materials Information Review Commission

HMIS: Hazardous Materials Identification System

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulation by the International Air Transport Association (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI (ICAO): Technical Instructions by the International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

logPow: octanol-water partition coefficient

LCxx: Lethal Concentration, for xx percent of test population

LDxx: Lethal Dose, for xx percent of test population

ICxx: Inhibitory Concentration for xx of a substance

ECxx: Effective Concentration of xx

N.O.S.: Not otherwise Specified

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OECD: Organization for Economic Co-operation and Development

OEL: Occupational Exposure Limit

OSHA: Occupational Safety and Health Administration

P-Statement: Precautionary Statement

PBT: Persistent, Bioaccumulative and Toxic

PMRA: Health Canada Pest Management Regulatory Agency

PPE: Personal Protective Equipment

RTK: Right to Know

STEL: Short-term exposure limit

SDS Safety Data Sheet

STOT: Specific Target Organ Toxicity

TLV: Threshold Limit Value

TWA: Time-weighted average

VPVB: Very Persistent and Very Bioaccumulative

WEL: Workplace Exposure Level

WHMIS: Workplace Hazardous Materials Information System

(WAF): water-accommodated fraction

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements 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.

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