



RXSOL

VARANASI CHEMICAL | RX MARINE INTERNATIONAL

RXSOL-19-1627-300

Ferric Chloride 40%

Material Safety Data Sheet (MSDS)

1. Product and Company Identification

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Product Name	RUSTOSOL
Part Number	RXSOL-16-1021-500

Company Details:

RX MARINE INTERNATIONAL

105, A wing , BSEL , TECH PARK.

VASHI ,NEW BOMBAY 400703 INDIA

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 ::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / Information on ingredients

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Component	CAS-No	Weight %
Aliphatic Hydrocarbon	64742-47-8	50-60 %
Petroleum Base Oil	64742-58-1	25-35 %
Surfactant	Proprietary	10-20 %

3. Hazards Identification

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Signal Word	:	Hazardous , Harmful
Hazard Statements	:	Harmful or fatal if swallowed. Combustible Liquid. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition
Label Elements	:	Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal. Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis. Eye Contact: Contact may be irritating to eyes. May cause redness and tearing. Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death. Chronic Effects: None expected.

Environmental hazards	:	For the environment toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment.
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4. First Aid Measures

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Eye Contact :	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact:	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation:	Vaporization is not expected at ambient temperatures. This material is not expected to cause inhalation-related disorders under anticipated conditions of use. In case of overexposure, move the person to fresh air.
Serious Inhalation:	Not available.
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear. Serious Ingestion: Not available.

5. Fire-fighting Measures

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FPA Flammability classification	:	NFPA Class-IIIB combustible material. Slightly combustible!
Flash Point Method	:	OPEN CUP: >196°C (385°F) (Cleveland.).
Lower Flammable Limit	:	No Data
Upper flammable Limit	:	No Data
Hazardous Combustion Products	:	Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur and/or nitrogen
Extinguishing Media	:	Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
Special Fire Fighting Procedures	:	Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water.
Protection of Fire Fighters	:	Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies

6. Accidental Release Measures

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Small Spill	:	Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill	:	Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7. Handling and Storage

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Handling	:	Avoid water contamination and extreme temperatures to minimize product degradation. Empty containers may contain product residues that can ignite with explosive force. Do not pressurize, cut, weld, braze solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product
Storage	:	Keep container closed. Do not store with strong oxidizing agents. Do not store at temperatures above 120° F or in direct sunlight for extended periods of time. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

8. Exposure controls and personal protection

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Engineering Control	:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below). An eye wash station and safety shower should be located near the work-station.
Personal Protective Equipment	:	Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.
Eye Protection	:	Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material heated above 125°F (51°C). Have suitable eye wash water available.
Hand Protection	:	Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. Use heat-protective gloves when handling product at elevated temperatures.
Body Protection	:	Use clean and impervious protective clothing if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.
Respiratory Protection	:	Vaporization is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
General Comment	:	Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines



Gloves



Suit

9. Physical and chemical properties

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Physical State	:	Liquid
Appearance	:	Amber
Odor	:	Hydrocarbon Solvent
Odor Threshold	:	No information available.
PH	:	NA
Boiling Point	:	361 - 369 F (183 -187°C)
Flash Point	:	122 F (49°C) Tag Open Cup
Pour Point	:	-63 C (-81.4 F) ASTM D-97
Specific Gravity	:	0.8 - 0.82 @ 60 F
Lower Explosion Limit	:	No data available.
Vapor Pressure	:	No data available.
Vapor Density	:	No data available.
Viscosity	:	2.79-2.96cSt @ 100 F
Solubility in Water	:	Insoluble
Percent Volatile	:	70-75%
Kinematic Viscosity	:	2.79-2.96cSt @ 100 F
Vapor Density	:	Grater then 1
Flammable Limits(Solvent Portion)	:	LEL: 0.6% UEL: 8.0%
VOC	:	412 grams/liter (49.5%)

10. Stability and reactivity

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Chemical Stability	:	Stable.
Hazardous Polymerization	:	Not expected to occur.
Condition to Avoid	:	Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.
Materials Incompatibility	:	Oxidizing materials
Hazardous Decomposition Products	:	No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS

11. Toxicological information

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The oral toxicity of this product is estimated to be greater than 5,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard. None of the components of this product is listed as a carcinogen or

suspected carcinogen or is considered a reproductive hazard.

12. Ecological information

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Ecotoxicity	:	Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.
Environmental Fate	:	An environmental fate analysis has not been conducted on this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum-based products. Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment.

13. Disposal considerations

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If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations.

14. Transport information

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DOT Surface Shipping Description: Excepted from Hazmat (49CFR 173.150 (F)) in non-bulk packagings. Bulk Packagings: NA1993, Combustible Liquid, n.o.s. (contains Petroleum Distillates), PG III IMDG Shipping Description: UN1268, Petroleum Distillates, n.o.s. 3, PG III

15. Regulatory information

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TSCA Inventory	:	This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
SARA 302/304	:	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312	:	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: No SARA 311/312 hazard categories identified.
SARA 313	:	This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.
CERCLA	:	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Zinc and Zinc Compounds, Concentration: 0 - 1%

CWA	:	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 199 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.
California Proposition 65	:	This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): Toluene: 0.001%
USA	:	Petroleum Oil
Additional	:	No additional regulatory remarks.

16. Other information

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ACGIH = American Conference of Governmental Industrial Hygienic

IARC = International Agency for Research on Cancer

NIOSH = National Institute of Occupational Safety and Health

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

NPCA = National Paint and Coating Manufacturers Association

NFPA = National Fire Protection Association

AIHA = American Industrial Hygiene Association

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

HMIS = Hazardous Materials Information System

EPA = Environmental Protection Agency

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