

1. Product and Company Identification

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Product Name Descaling Liquid
Part Number RXSOL-11-1008-025

Company Details:

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

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Chemical Name	Cas No	EC No	%	Classification according to Directive 67/548/EEC
Descaling Liquid	7647-01-0	(EC No) 231-595-7	5 - 10	C; R34 Xi; R3

3. Hazards Identification

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Signal Word H300 + H310 Fatal if swallowed or in contact with skin.

Hazard Statements P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.

Precautionary statements Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Classification of the substance or mixture None

Supplemental Hazard Statements Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

4. First Aid Measures

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General advice Call a physician immediately

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

Swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin Contact Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

Inhalation Remove person to fresh air and keep comfortable for breathing.

Ingestion	Rinse mouth. Do not induce vomiting. Call a physician immediately.
Most important symptoms and effects, both acute and delay	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

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Flammability	May be combustible at high temperature.
Suitable extinguishing media	carbon dioxide (CO ₂), foam, water spray, powder
Unsuitable extinguishing media	Do NOT use water jet.
Special hazards arising from the substance or mixture	Carbon oxides Nitrogen oxides (NO _x) Combustible.
Further information	Use water spray to cool unopened containers.
Hazardous combustion products	Corrosive vapours. Chlorine
Advice for firefighters	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.
Spillage	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Environmental Precaution	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Reference to other sections	For disposal see section 13.

7. Handling and Storage

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Advice on protection against fire and explosion	Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product
Advice on safe handling	Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe vapours. Wear personal protective equipment.
Conditions for safe storage, including any incompatibilities	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in

Storage conditions	an area accessible only to qualified or authorized persons. Moisture sensitive.
Storage class	Keep container closed when not in use. Store in a well-ventilated place. Store away from freezing (avoid freezing during storage). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Specific end use(s)	Storage class (TRGS 510): 3: Flammable liquids
Advice on general occupational hygiene	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

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Exposure controls	No specific additional engineering controls are required. Provide good natural or artificial ventilation.
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Eye/face protection	Chemical resistant gloves (according to European standard EN 374 or equivalent)
Body Protection	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Skin protection	Wear suitable protective clothing
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. Physical and chemical properties

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Physical state	Liquid
Colour	Colourless.
Odour	Acidic.
Odor Threshold	No data available
pH	1 - 2
Melting Point	No data available
Boiling Point	No data available
Flash Point	No data available
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	No data available
Viscosity	No data available
Density	1.14 - 1.17

Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	Soluble in water.
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Reacts exothermically with (some) bases.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	May react with bases, copper, silver, mercury, magnesium, zinc and their alloys.
Conditions to avoid	Overheating
Incompatible materials	aluminium, metals (e.g. copper, brass).
Hazardous decomposition products	Chlorine

11. Toxicological information

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Acute toxicity	Not classified
Skin corrosion/irritation	Causes severe skin burns and eye damage. pH: 1 - 2
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitization	No data available
Carcinogenicity	No data available
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Additional Information	RTECS: UF9625000 Lung irritation, Cyanosis, Central nervous system depression To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

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Persistence and degradability	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer. inorganic wastes containing dangerous substances.
Toxicity to fish	Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 42,81 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid
Toxicity	Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h
Toxicity to bacteria	EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 74,35 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid
Products Biodegradation	The methods for determining the biological degradability are not

Mobility in soil	applicable to inorganic substances.
Results of PBT and vPvB assessment	No data available
Endocrine disrupting properties	No data available
Other adverse effects	No data available .

13. Disposal considerations

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Product	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging	Dispose of as unused product.
Waste treatment Method	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

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UN number	ADR/RID:3264 IMDG:3264 IATA: 3264
UN proper shipping name	ADR/RID:CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S IATA:CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA:8
Packaging group	ADR/RID: II IMDG: II IATA:II
Environmental hazards	ADR/RID: No IMDG: No IATA: No
Special precautions for user	No data available
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

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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.
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