

1. Product and Company Identification

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Product Name Hydrogen Peroxide
Part Number RXSOL-40-1630-120

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	EC number	Weight
Hydrogen Peroxide	7722-84-1	231-765-0	>= 30 - < 35 %

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H318 Causes serious eye damage.
Precautionary statements	P280 Wear eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	None.
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	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air.
Eye Contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation	Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms and effects, both acute and delaye

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Flash Point

Dry powder Dry sand

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Nature of decomposition products not known. Not combustible.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Hazardous combustion products

Fire may cause the evolution of Sulphur oxides, nitrogen oxides.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Protective Equipment

Use personal protective equipment.

Specific Hazards Arising from the Chemical

Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. 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.

Environmental Precaution

Do not empty into drains.

Methods and materials for containment and cleaning

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H?, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

7. Handling and Storage

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Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

Precautions for safe handling

Observe label precautions.

Storage conditions

No metal containers. Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve). Tightly closed. Protected from light. Do not store near combustible materials. Recommended storage temperature see product label. No metal containers. Close

containers in such a way to enable internal pressure to escape (e.g. excess pressure valve). Tightly closed. Protected from light. Do not store near combustible materials. Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Advice on general occupational hygiene

Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

Requirements for storage

Keep in cool and store under shade.

8. Exposure controls and personal protection

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Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Control parameters

Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.

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

Tightly fitting safety goggles

Body Protection

Protective clothing

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Latex gloves Minimum layer thickness: 0,6 mm Break through time: 480 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

Respiratory protection

Recommended Filter type: filter NO The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Other Protection Measure

Handle in accordance with good industrial hygiene and safety practice.

Control of environmental exposure

Do not empty into drains.

9. Physical and chemical properties

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Physical state

Liquid

Colour

Colorless

Odour

Slight

Odor Threshold

No data available

pH

2 - 4 at 100% at 20 °C

Melting Point

-26 °C

Boiling Point

107 °C at 1.013 hPa

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	> 100 °C
Vapour pressure	ca.18 hPa at 20 °C
Density	1,11 g/cm ³ at 20 °C
Relative Density	No data available
Relative vapor density	No data available
Freezing point	No data available
Viscosity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	No data available
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Has a fire-promoting effect due to release of oxygen.
Stability	heat-sensitive Sensitivity to light Contains the following stabilizer(s): Disodium pyrophosphate (0,015 %) phosphoric acid (0,01 %) Ammonium nitrate (0,006 %)
Possibility of hazardous reactions	Risk of explosion with: Acetaldehyde Acetone Activated charcoal Alcohols formic acid Ammonia combustible substances vinyl acetate Organic Substances Powdered metals Dust hydrazine and derivatives hydrides Ether Potassium anilines Metallic salts acetic acid Acetic anhydride Formaldehyde furfuryl alcohol oils sodium Lithium lithium aluminium hydride organic solvents Magnesium metallic oxides Methanol Reducing agents Oxides of phosphorus butanol with Sulphuric acid alkali hydroxides with Heavy metals Exothermic reaction with: alkali hydroxides antimony sulfide tin (II) chloride Sulfides 3-BROMO - 5 -CHLORO - 4 -HYDROXYBENZALDEHYDE nitric acid (conc.) ethanol glycerol Potassium hydroxide phosphorus metallic oxides Sodium hydroxide Aldehydes nonmetals nonmetallic oxides strong alkalis Amines Acids Oxidizing agents alkali salts Alkali metals Alkaline earth metals iodides peroxi compounds Brass organic nitro compounds phenol with metal catalysts Risk of ignition or formation of inflammable gases or vapours with: potassium permanganate Wood/Sawdust vinyl acetate with Catalyst
Conditions to avoid	Heating.
Incompatible materials	Metals
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - female - 693,7 mg/kg (OECD Test Guideline 401) Acute toxicity estimate Inhalation - 4 h - 11,1 mg/l - vapor (Expert judgment) LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (US-EPA)
Skin corrosion/irritation	Remarks: Causes severe burns. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Serious eye damage/eye irritation	Remarks: Causes serious eye damage.
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).

Carcinogenicity	No data available
Germ cell mutagenicity	Method: OECD Test Guideline 474 Species: Mouse - male and female - Bone marrow Result: negative
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation. - Respiratory Tract
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 100 mg/kg - LOAEL (Lowest observed adverse effect level) - 225 mg/kg Remarks: The value is given in analogy to the following substances: ammonium bromide RTECS: VZ3150000 Effects due to ingestion may include: sedation To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Systemic effects: Tiredness After uptake of large quantities: ataxia (impaired locomotor coordination) confusion Convulsions Coma However, when the product is handled appropriately, hazardous effects are unlikely to occur. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

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Bioaccumulative potential	No data available
Persistence and degradability	Biodegradability Remarks: No data available
Toxicity to fish	Semi-static test LC50 - Pimephales promelas (fathead minnow) - 16,4 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Semi-static test LC50 - Daphnia pulex (Water flea) - 2,4 mg/l - 48 h (US-EPA)
Toxicity to algae	Static test ErC50 - Skeletonema costatum (marine diatom) - 1,38 mg/l - 72 h Remarks: (ECHA) static test NOEC - Skeletonema costatum (marine diatom) - 0,63 mg/l - 72 h Remarks: (ECHA)
Toxicity to bacteria	Static test EC50 - activated sludge - 466 mg/l - 30 min (OECD Test Guideline 209) static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
Mobility in soil	No Information available
Results of PBT and vPvB assessment	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.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No interference with wastewater treatment plants are to be expected when used properly. Discharge into the environment must be avoided. No data available

13. Disposal considerations

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Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
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: 2014 IMDG: 2014 IATA: 2014
UN proper shipping name	ADR/RID: HYDROGEN PEROXIDE, AQUEOUS SOLUTION IMDG: HYDROGEN PEROXIDE, AQUEOUS SOLUTION IATA: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Transport hazard class(es)	ADR/RID: 5.1 (8) IMDG: 5.1 (8) IATA: 5.1 (8)
Packaging group	ADR/RID: II IMDG: II IATA: II
Environmental hazards	ADR/RID: NO IMDG: NO IATA: NO
Further information	No data available

15. Regulatory information

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Inventory status	Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65.
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.
Authorisations and/or restrictions on use	Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Hydrogen Peroxide Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Ammonium nitrate
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ACUTE TOXIC : ENVIRONMENTAL HAZARDS
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	A Chemical Safety Assessment has been carried out for this substance.

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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