Material Safety Data Sheet

Perchloric Acid 70% (RXSOL-19-6098-040)

1. Product and Company Identifaction

Product Name	Perchloric Acid 70%
Part Number	RXSOL-19-6098-040

Company Details:
RX MARINE INTERNATIONAL
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VASHI ,NEW BOMBAY 400703 INDIA

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2. Composition / informationon ingredients

Product Name	CAS-No.	EC NO.	INDEX NO	CLASSFICATION	CONCENTRATION
Perchloric acid	7601-90-3	231-512-4	017-006-00-4	O, C, R 5 - R 8 - R22 - R35 - R48	>= 50 - = 100%

3. Hazards Identification

Classification according to Regulation (EC) No 1272/2008	Oxidizing liquids (Category 1), H271 Corrosive to metals (Category 1), H290 Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1A), H314 Specific target organ toxicity - repeated exposure (Category 2), Thyroid, H373 For the full text of the H-Statements mentioned in this Section, see Section 16.
Hazard Statements	H271 May cause fire or explosion; strong oxidiser. H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H373 May cause damage to organs (Thyroid) through prolonged or repeated exposure.
Precautionary statement(s)P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing.Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P371 + P380 + P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Supplemental Hazard Statements	None
Signal word	Danger
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

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
Inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed	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

Suitable Extinguishing Media	Carbon dioxide (CO 2). Dry chemical.
Unsuitable Extinguishing Media	DO NOT USE WATER
Flash Point	No information available
Method	No information available
Explosion Limits	Upper No data available Lower No data available Oxidizing Properties Not oxidising Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available
Specific Hazards Arising from the Chemical	Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with water.
Hazardous Combustion Products	Sulfur oxides.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Strongly oxidizing hazardous materials.
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls and personal protection

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment	Eye/face protection Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
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).
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



Gloves



Suit

9. Physical and chemical properties

Appearance Colorless	Liquid, clear
Odour	Colourless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	18 °C point
Initial boiling point and boiling range	
Flash point 113 °C	Liquid, clear
Evaporation Rate	Colourless
Flammability (solid, gas)	No information available
Upper/lower flammability	No information available
Vapour pressure	9,1 hPa at 25 °C
Vapour density	No data available
Relative density	1,664 g/mL at 25 °C
Water solubility	completely miscible
Partition coefficient	No data available
Auto-ignition temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive properties	Not explosive
Oxidizing properties	No data available
Other safety information	No data available

10. Stability and reactivity

Recativity	No Data Available
Stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Amines and alcohols cause exothermic reactions.

Incompatible materials	Strong bases, Strong acids, Amines, Phosphorus halides, Alcohols, Organic materials, Powdered metals, Strong reducing agents
Condition to Avoid	No data available
Hazardous decomposition products	Other decomposition products - No data available In the event of fire: see section 5.

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - 2.000 mg/kg
Skin corrosion/irritation	Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation	Corrosive
Respiratory or skin sensitisation	No Data Available
Germ cell mutagenicity	Ames test
Carcinogenicity IARC	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Salmonella typhimurium	Result: negative
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure. - Thyroid
Aspiration hazard	No data available
Additional Information	RTECS: Not available burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

12. Ecological information

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Toxicity	Toxicity to daphnia and Immobilization EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h other aquatic (OECD Test Guideline 202) invertebrates
Persistence and degradability	No Data Available
Bioaccumulative potential	No Data Available
Mobility in soil	No Data 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.
Other adverse effects	Do not empty into drains. Neutralisation will not reduce ecotoxic effects.

13. Disposal considerations

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

14. Transport information

UN number	ADR/RID: 1873 IMDG: 1873 IATA: 1873

UN proper shipping name	ADR/RID: PERCHLORIC ACID IMDG: PERCHLORIC ACID IATA: Perchloric acid Passenger Aircraft: Not permitted for transporterchloric acid
Transport hazard class(es)	ADR/RID: 5.1 (8) IMDG: 5.1 (8) IATA: 5.1 (8)
Packaging group	ADR/RID: I IMDG: I IATA: I
Environmental hazards	No Data Available
Special precautions for user	No Data Available

15. Regulatory information

Regulatory information	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006
Safety, health and environmental regulations/legislation specific for the substance or mixture	No Data Availble
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. 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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