Material Safety Data Sheet

Sodium Chlorate NOT FOR SALE (RXSOL-94-2977-025)

1. Product and Company Identifaction

Product Name	Sodium Chlorate
Part Number	RXSOL-91-2977-050

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Hazira, Mumbai, Vizag, Chennai, KolkatA, Fujairah UAE & Muscat Oman

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Website	www.rxmarine.com

2. Composition / informationon ingredients

Name of Substance	Cas Number	EC Number	Wight %
Sodium Chlorate	7775-09-9	231-887-4	100%

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H271 May cause fire or explosion; strong oxidizer. H302 Harmful if swallowed. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P221 Take any precaution to avoid mixing with combustibles. P273 Avoid release to the environment.
Precautionary statements response	Get medical attention/advice if you feel unwell Skin : IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell . Fire : In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. In case of fire: Use CO2, dry chemical, or foam for extinction. Disposal : Dispose of contents/container to an approved waste disposal plant.

4. First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flushes skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion:	Do not induce vomiting. Obtain medical attention.If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration.
Notes to Physician	Treat symptomatically

5. Fire-fighting Measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO 2). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method	No information available
Explosion Limits Upper	No information available
Explosion Limits Lower	No information available
Oxidizing Properties	Oxidizer
Specific Hazards Arising from the Chemical	Oxidizer: Contact with combustible/organic material may cause fire. Decomposes violently at elevated temperatures. Thermal decomposition can lead to release of irritating gases and vapors. May ignite combustibles (wood paper, oil, clothing, etc.). Hazardous Combustion Products Hydrogen chloride gas, Chlorine. Chlorine Sodium 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 Protection :	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Environmental Precautions	Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning	Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Keep container tightly closed in a dry and well-ventilated place. Keep combustibles (wood, paper, oil, etc) away from spilled material. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling	Wear personal protective equipment. Ensure adequate ventilation. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe dust. Wash hands before breaks and immediately after handling the product.
Storage	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials.
Advice	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location
Personal Protective Equipment	Eye/face Protection : Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166 or any similat standard. Skin and body protection : Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Exposure Limit	Handle in accordance with good industrial hygiene and safety practice.



Gloves



Suit

9. Physical and chemical properties

Form	Solid
Colour	Off -White
Odour	Odourless
Odor Threshold	Not Applicable
pH	5 -7 at 50 g/l 20 °C
Melting Point	255 °C (decomposition)
Boiling Point	Not Applicable
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No Data Available
Explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour Density	No Data Available
Density	2.49 g/cm3 at 15 °C
Relative Density	No information available.
Water Solubility	Water solubility 1,000 g/lat 20 °C
Auto-ignition temperature	No information available.
Decomposition temperature	265 - 300 °C
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 1.
Bulk density	ca.1,500 kg/m3
Molecular Formula	Cl Na O3
Molecular Weight	106.44

10. Stability and reactivity

Reactivity	Mechanical sensitivity (friction), sensitive to shock
Stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Risk of explosion with: powdered aluminium, ammonium compounds, combustible substances, Cyanides, CALCIUM HYDRIDE, fats, rubber, Powdered metals, Sulphides, phosphorus, oils, oxidisable substances, magnesium, hypophosphites, Nitrobenzene, silicon, metallic oxides, Alkaline earth metals, semimetals, semimetallic oxides, organic nitro compounds, thiocyanates charcoal, Release of:, Oxygen sulfur, Release of:, Oxygen Acids, Release of:, chlorine dioxide sulphur dioxide, Release of:, chlorine dioxide Risk of ignition or formation of inflammable gases or vapours with: Arsenic oxides
Conditions to avoid	Avoid shock and friction. Strong heating.
Incompatible materials	No information available
Hazardous Polymerization	Products in the event of fire: See section 5.

11. Toxicological information

Information on toxicological effects	Acute oral toxicity : LD50 Rat: 1,200 mg/kg (RTECS) Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Acute inhalation toxicity Symptoms: mucosal irritations Acute dermal toxicity : LD50 Rabbit: > 10,000 mg/kg (RTECS) Skin irritation :slight irritation Eye irritation : slight irritation Sensitisation : This information is not available. Germ cell mutagenicity. Genotoxicity in vitro Mutagenicity (mammal cell test): micronucleus. Result: negative (RTECS) Carcinogenicity : Did not show carcinogenic effects in animal experiments. Reproductive toxicity : This information is not available. Teratogenicity : This information is not available. Specific target organ toxicity - single exposure This information is not available. Specific target organ toxicity - repeated exposure :This information is not available. Aspiration hazard :This information is not available.
Further information	After absorption: Systemic effects: Methaemoglobinemia Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Toxicity	Toxicity to fish LC50 Oncorhynchus mykiss (rainbow trout): 1,750 mg/l; 96 h (IUCLID) Toxicity to daphnia and other aquatic invertebrates EC50 Daphnia magna (Water flea): 1,093 mg/l; 24 h (IUCLID) Toxicity to algae IC5 Scenedesmus quadricauda (Green algae): 3.8 mg/l (IUCLID)
Persistence and degradability	No information available.
Bioaccumulative potential	Partition coefficient: n-octanol/water log Pow: -7.18 (calculated) (Lit.) Bioaccumulation is not expected.
Mobility in soil	No Information available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	Additional ecological information Biological effects: Herbicide Discharge into the environment must be avoided.

13. Disposal considerations

Disposal considerations	Waste treatment methods Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. Transport information

DOT

UN Number	UN1495
Proper shipping name	SODIUM CHLORATE
Hazard Class	5.1
Packing group	II

TDG

UN Number	UN1495
Proper shipping name	SODIUM CHLORATE
Hazard Class	5.1
Packing group	II

IATA

UN Number	UN1495
Proper shipping name	SODIUM CHLORATE
Hazard Class	5.1
Packing group	II

IMDG/IMO

UN Number	UN1495
Proper shipping name	SODIUM CHLORATE
Hazard Class	5.1
Packing group	II

15. Regulatory information

Safety, health and environmental regulations/ legislation specific for the substance or mixture	National legislation Storage class 5.1A
Chemical Safety Assessme	For this product a chemical safety assessment was not carried out.

HMIS

Health Hazard	: 2
Fire Hazard	: 0
Reactivity	: 3
Personal Protection	: 1

16. Other information

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 weassume 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.