

## 1. Product and Company Identification

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Product Name Calcium Hypochlorite Granules  
Part Number RXSOL-31-3028-005

### Company Details:

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

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Product name	Cas No	EC No	Weight	Formula
Calcium hypochlorite	7778-54-3	-	65-100	Ca(OCl)?

## 3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H272 May intensify fire; oxidiser H302 Harmful if swallowed H314 Causes severe skin burns and eye damage
Precautionary statements	P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking P260 Do not breathe dusts or mists P280 Wear eye protection/face protection
Classification of the substance or mixture	No data available
Supplemental Hazard Statements	No data available
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	Take off immediately all contaminated clothing. Self-protection of the first aider.
If inhaled	Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Eye Contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult doctor if feeling unwell.
Skin Contact	After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure
Inhalation	No data available

Ingestion	Rinse mouth immediately and drink plenty of water. Rinse mouth with water (only if the person is conscious). Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).
Most important symptoms and effects, both acute and delay	Following inhalation Cough, pain, choking, and breathing difficulties, Following skin contact: Causes severe burns, Causes poorly healing wounds, After eye contact: Causes burns, Risk of serious damage to eyes, Risk of blindness, Following ingestion Vomiting, Corrosion, Gastric perforation
Indication of any immediate medical attention and special treatment needed	No data available

## 5. Fire-fighting Measures

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Flammability	No data available
Suitable extinguishing media	co-ordinate firefighting measures to the fire surroundings! sand, cement
Unsuitable extinguishing media	Water jet
Special hazards arising from the substance or mixture	Oxidising property. Non-combustible.
Further information	No data available
Hazardous combustion products	In case of fire may be liberated: Hydrogen chloride (HCl)
Advice for firefighters	In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.
Protective Equipment	No data available
Specific Hazards Arising from the Chemical	No data available

## 6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.
Spillage	No data available
Personal Protection	No data available
Environmental Precaution	Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority
Methods and materials for containment and cleaning	Covering of drains. Take up mechanicallyTake up mechanically. Control of dust.Place in appropriate containers for disposal. Ventilate affected area.
Reference to other sections	Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## 7. Handling and Storage

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Advice on protection against fire and explosion	Keep away from combustible material.
Incompatible materials	Observe hints for combined storage. Keep/store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.
Hygiene measures	Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.
Advice on safe handling	Handle and open container with care. Avoid dust formation. Clear contaminated areas thoroughly
Conditions for safe storage including any incompatibilities	No data available
Storage conditions	Store in a dry place. Keep container tightly closed.Recommended storage

Storage class	temperature: 4?7?15 °C
Specific end use(s)	No data available
Advice on general occupational hygiene	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
	No data available

## 8. Exposure controls and personal protection

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Exposure controls	Personal protective equipment
Engineering Control	No data available
Eye/face protection	Use safety goggle with side protection. Wear face protection.
Body Protection	Protective clothing
Skin protection	Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide
Respiratory protection	Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White).
Other Protection Measure	Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended

## 9. Physical and chemical properties

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Physical state	Solid granulate
Colour	White
Odour	Chlorine
Odor Threshold	No data available
pH	11.5 (25 °C)
Melting Point	100 °C (spontaneous decomposition)
Boiling Point	No data available
Flash Point	No data available
Evaporation Rate	No data available
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	No data available
Viscosity	No data available
Density	2.35 g /cm <sup>3</sup> at 20 °C
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	200?220 g /l at 20 °C (spontaneous decomposition)

Ignition temperature	No data available
Particle characteristics	No data available

## 10. Stability and reactivity

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Reactivity	It's a reactive substance. Oxidising property.
Chemical stability	Reactivity if heated. Moisture-sensitive. May cause decomposition by long-term light influence.
Possibility of hazardous reactions	Contact with acids liberates toxic gas => Chlorine (Cl <sub>2</sub> ), Violent reaction with: Acetylene, Alkali metals, Alcohols, Amines, Ammonia (NH <sub>3</sub> ), Acids, => Explosive properties
Conditions to avoid	Keep away from heat. Decomposition takes place from temperatures above: >100 °C. Protect from moisture.
Incompatible materials	Combustible materials
Hazardous decomposition products	Hazardous combustion products see section 5.

## 11. Toxicological information

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Acute toxicity	Oral LD <sub>50</sub> 850 mg/kg rat TOXNETSodium chloride 7647-14-5 oral LD <sub>50</sub> 3,000 mg/kg ratdermal LD <sub>50</sub> >10,000 mg/kg rabbitCalcium carbonate 471-34-1 oral LD <sub>50</sub> >2,000 mg/kg ratinhalation: dust/mist LC <sub>50</sub> >3 mg/l /4h rat dermal LD <sub>50</sub> >2,500 mg/kg rabbitCalcium hydroxide 1305-62-0 oral LD <sub>50</sub> >2,000 mg/kg rat Calcium chloride 10043-52-4 oral LD <sub>50</sub> 2,120 mg/kg rat
Skin corrosion/irritation	Causes severe skin burns and eye damage
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	No data available

## 12. Ecological information

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Persistence and degradability	Calcium carbonate 471-34-1 carbon dioxide generation 90 % 28 d ECHA
Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity	LC <sub>50</sub> 5,840 mg/l fish 96 h Calcium carbonate 471-34-1 EC <sub>50</sub> >14 mg/l algae 72 h Calcium hydroxide 1305-62-0 LC <sub>50</sub> 50.6 mg/l fish 96 h Calcium hydroxide 1305-62-0 EC <sub>50</sub> 49.1 mg/l aquatic invertebrates 48 h Calcium hydroxide 1305-62-0 ErC <sub>50</sub> 184.6 mg/l algae 72 h Calcium chloride 10043-52-4 LC <sub>50</sub> 4,630 mg/l fish 96 h Calcium chloride 10043-52-4 ErC <sub>50</sub> >4,000 mg/l algae 72 h
Toxicity to bacteria	No data available
Toxicity to algae	No data available
Products Biodegradation	No data available
Mobility in soil	No data available
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	No data available
Contaminated packaging	Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled
Waste treatment Method	This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. Transport information

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UN number	ADR/RID:1748	IMDG:1748	IATA:1748
UN proper shipping name	ADR/RID:CALCIUM HYPOCHLORITE, DRY	IMDG:CALCIUM HYPOCHLORITE, DRY	IATA:CALCIUM HYPOCHLORITE, DRY
Transport hazard class(es)	ADR/RID:5.1	IMDG:5.1	IATA:5.1
Packaging group	ADR/RID:II	IMDG:II	IATA:II
Environmental hazards	ADR/RID:Yes	IMDG:Yes	IATA:No
Special precautions for user	Tunnel restriction code (E)		
Further information	No data available		

## 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	Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers
Chemical Safety Assessment	A Chemical Safety Assessment has been carried out for this substance.

## 16. Other information

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Other Information	<p>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 we 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.</p> <p><b>DISCLAIMER OF LIABILITY</b> :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p>
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