



CREATED DATE: **May 2009**  
REVISED DATE: **January, 2025**  
Valid for 5 years from this date.

## SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT/COMPANY NAME

Product Name	Spa Store Hardness Raiser
Other Names	Calcium Chloride
Product Use	Reduces calcium hardness in water.
Company Name	Pool Ranger Pty Ltd 4/1 Prosperity Place Warriewood 2102
Telephone Number	02 9979 3490
Emergency Number	02 9979 3490 (Office hours 9am – 5 pm)

### 2. HAZARD IDENTIFICATION/CLASSIFICATION

<b>SUSMP Classification</b>	S5
<b>ADG Classification</b>	Class 8: Corrosive Substances.
<b>UN Number</b>	3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.



**GHS Signal word: WARNING.**

<b>HAZARD STATEMENT</b>	H319: Causes serious eye irritation.
<b>PREVENTION</b>	P264: Wash contacted areas thoroughly after handling. P280: Wear protective gloves, protective clothing and eye or face protection. P281: Use personal protective equipment as required.
<b>RESPONSE</b>	P337: If eye irritation persists: seek medical attention.



	P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>STORAGE</b>	P405: Store locked up. P402+P404: Store in a dry place. Store in a closed container. P403+P233: Store in a well-ventilated place. Keep container tightly closed.
<b>DISPOSAL</b>	P501: If product cannot be recycled, consider controlled incineration, or contact a specialist waste disposal company (see Section 13 of this SDS).

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportions (%)
CaC12 Flakes	CaC12	(10043-52-4)	94 - 97%
Iron Compounds (as Fe)	No data available		0.0005%Max %
Other Chemicals (as naC)	No data available		5.50% Max %
Water	No data Available	7732-18-5	0.10% Max %

### 4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure.

<b>Ingestion</b>	Rinse mouth with water. Give water to drink. Do <b>NOT</b> induce vomiting. If symptoms develop, seek medical attention.
<b>Eye</b>	Immediately flush eyes with plenty of water holding eyelids open. If irritation persists, seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash affected area with soap and water. If irritation persists, seek medical attention.
<b>Inhaled</b>	Remove victim from exposure to fresh air. If rapid recovery does not occur, seek medical attention.
<b>Advice to Doctor</b>	Treat symptoms symptomatically based on individual reactions of patient and judgment of doctor. <b>NOTE: For advice in an emergency, contact: Poisons Information Centre Australia 13-11-26.</b> <b>Aggravated Medical Conditions caused by exposure</b> No information available on medical conditions which are aggravated from exposure to this product.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing Media</b>	Product is a non-flammable solid. In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions.
<b>Hazards from Combustion Products</b>	Non-combustible solid. Material does not burn. Containers may explode upon heating. Avoid generating dust. Incompatible with oxidizing agents, calcium oxide, boron oxide, methyl vinyl ether, bromine trifluoride and sources of ignition. Reacts exothermically with water to liberate heat. Hygroscopic. Fire or heat may produce irritating, poisonous and/or corrosive gases.
<b>Special protective precautions and equipment for fire fighters</b>	Fire fighters should wear self-contained breathing apparatus (SCBA) and full protective fire fighting clothing along with protective equipment.
<b>Hazchem Code</b>	N/A

## 6. ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures</b>	Personnel involved in the clean up should wear full protective clothing. Eliminate all sources of ignition. Increase ventilation. Stop leak if safe to do so. Avoid generating dust. Do not allow product to reach drains, sewers or waterways. If the product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use spark-proof tools and equipment.
<b>Methods and Materials for Containment and Clean Up</b>	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labeled waste container and hold for safe disposal. Minor spills and small residuals can be flushed down the drain with plenty of water.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials including oxidizing agents, calcium oxide, boron oxide, methyl vinyl ether, Bromine trifluoride and ignition sources.



<b>Handling and Storage continued</b>	Protect from moisture. Hygroscopic. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container Type</b>	Packaging must comply with requirement of Hazardous Substances (Packaging) Regulations 2001. Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>National Exposure Standards</b>	No exposure standard has been established for this product by The Australian Safety and Compensation Council (ASCC). However, the exposure standard for the dust not otherwise specified is 10mg/m <sup>3</sup> (for inspirable dust) and 3mg/m <sup>3</sup> (for respirable dust).
<b>Biological Limit Values</b>	Currently, there are no Biological Exposure Indices (BEIs) determined for the components of this product.
<b>Engineering Controls</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

### Exposure Controls/Personal Protection continued

#### Personal Protection

<b>RESPIRATOR</b>	Wear an effective dust mask (P2 filter) where dusts are generated (AS1715/1716)
<b>EYES</b>	Safety glasses with side shields (AS1336/1337)
<b>HANDS</b>	Wear elbow length PVC or neoprene gloves (AS2161)
<b>CLOTHING</b>	Chemical resistant overalls and safety footwear (AS3765/2210). DO NOT use leather/boots products as they will dehydrate resulting in shrinkage and possible destruction.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White flakes, granules or powder
<b>Odour</b>	Odourless
<b>Vapour Pressure</b>	Insignificant
<b>Vapour Density</b>	N/A
<b>Melting Point</b>	772
<b>Solubility in Water</b>	745g/L evolves heat
<b>Specific Gravity</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>pH</b>	8-12 (10% H <sub>2</sub> O solution)
<b>Flammability Limited</b>	As percentage volume in air.



<b>Lower Explosion Limit</b>	Not applicable
<b>Upper Explosion Limit</b>	Not applicable
<b>Ignition Temperature</b>	Not applicable
<b>Specific Heat Value</b>	Not applicable
<b>Particle Size</b>	Not applicable
<b>Volatile Organic Compounds</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Viscosity</b>	Not applicable
<b>Percent Volatile</b>	Not applicable
<b>Octanol/Water Partition Coefficient</b>	Not applicable
<b>Saturated Vapour Concentration</b>	Not applicable
<b>Additional Characteristics</b>	Not applicable
<b>Flame Propagation/Burning Rate of Solid Materials</b>	Not applicable
<b>Properties of Materials that may Initiate or Contribute to Fire Intensity</b>	Not applicable
<b>Potential for Dust Explosion</b>	Not applicable
<b>Fast of Intensely Burning Characteristics</b>	Not applicable
<b>Non-flammables that could contribute Unusual Hazards to a Fire</b>	Not applicable
<b>Release of Invisible Flammable Vapours and Gases</b>	Not applicable
<b>Decomposition Temperature</b>	320-360
<b>Additional Information</b>	Molecular Weight: 111.0 Bulk density: 0.75-1.0g/cm <sup>3</sup> Solubility: Soluble in water, alcohol, acetic acid & acetone

#### 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Product is stable under normal circumstances of use, storage and temperature.
<b>Conditions to Avoid</b>	Avoid excessive heat, generating dust, static discharges, direct sunlight, moisture and high temperatures.
<b>Conditions to Avoid</b>	Avoid excessive heat, generating dust, static discharges, direct sunlight, moisture and high temperatures.
<b>Incompatible Materials</b>	Incompatible with oxidizing agents, calcium oxide, boron oxide, Methyl vinyl ether, bromine trifluoride and sources of ignition.
<b>Hazardous Decomposition Products</b>	Fire and heat may produce irritating, poisonous and/or corrosive gases. Reacts exothermically with water liberating heat.
<b>Hazardous Reactions</b>	Hazardous polymerization occurs if calcium chloride is mixed with methyl vinyl ether.

#### 11. TOXICOLOGICAL INFORMATION

<b>Toxicity Data</b>	Oral LD50 Rat: 1000mg/Kg Oral LD50 Mouse: 32630mg/Kg
<b>Toxicological Information continued</b>	Acute oral toxicity is determined in accordance with OECD Guideline 401. Skin Irritation Rabbit: Not irritating according to OECD Guideline 404. Eye Irritation Rabbit: Irritating according to OECD Guideline 405. The information on oral acute toxicity and irritation refers to dry product.
<b>Ingestion</b>	Moderately toxic by ingestion.
<b>Skin</b>	Slightly toxic by dermal absorption.
<b>Inhaled</b>	Breathing in dust may result in respiratory tract irritation.

#### 12. ECOLOGICAL INFORMATION


<b>Ecotoxicity</b>	Fathead Minnow LC50 96hr: 4630mg/L Daphnia LC50 48hr: 2770mg/L Nitzschia LC50 120hr: 3130mg/L
<b>Persistence and Degradability</b>	This product will not biodegrade (inorganic product)
<b>Mobility</b>	Soluble in water and mobile.
<b>Environmental Fate (Exposure)</b>	Avoid contaminating drains, sewers or waterways.
<b>Bioaccumulative Potential</b>	This product does not bioaccumulate in the aquatic environment.



### 13.DISPOSAL CONSIDERATIONS

<b>Disposal</b>	Disposal of in accordance with all local, state and federal regulations.
<b>Special Precautions for Land Fill or Incineration</b>	The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.

### 14.TRANSPORRT INFORMATION

<b>UN Number</b>	Not applicable
<b>Shipping Name</b>	CALCIUM CHLORIDE
<b>Dangerous Goods Class</b>	8 
<b>Subsidiary Risk</b>	None allotted
<b>Pack Group</b>	0
<b>Precaution for User</b>	Irritant
<b>Hazchem Code</b>	Not applicable

### 15.REGULATORY INFORMATION

Classified as non-hazardous according to the criteria of the Australian Safety and Compensation Council (ASCC) and Annex I European Directive 67/548/EEC. EC Number: 233-140-8

<b>Poisons Schedule</b>	Not applicable
<b>EPG</b>	Not applicable
<b>AICS Name</b>	Calcium Chloride (CaCl <sub>2</sub> )
<b>HSNO Hazard Classification</b>	6.1D 6.3A 6.4A 9.3C
<b>ERMA Approval Code</b>	186346

## 16. OTHER INFORMATION

### **LEGEND TO ABBREVIATIONS AND ACRONYMS**

<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>CAS</b>	Chemical Abstracts Services (Registry number)
<b>cm<sup>2</sup></b>	Centimeters squared
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>COD</b>	Carbon Dioxide
<b>Deg C (°C)</b>	Degrees Celsius
<b>g</b>	Gram
<b>g/cm<sup>3</sup></b>	Grams per cubic centimeter
<b>g/l</b>	Grams per litre
<b>HSNO</b>	Hazardous Substance & New Organism
<b>IDLH</b>	Immediately dangerous to Life & Health
<b>Immiscible</b>	Liquids are insoluble in each other
<b>Kg</b>	Kilogram
<b>Kg/m<sup>3</sup></b>	Kilograms per cubic metre
<b>LC<sub>50</sub></b>	LC stands for lethal concentration. LC <sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 to 4 hours.
<b>LD<sub>50</sub></b>	LD stands for Lethal Dose. LD <sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
<b>Ltr</b>	Litre
<b>m<sup>3</sup></b>	Cubic metre
<b>Mbar</b>	Millibar
<b>mg</b>	Milligram
<b>mg/24H</b>	Milligrams per 24 hours
<b>mg/kg</b>	Milligrams per kilogram
<b>mg/m<sup>3</sup></b>	Milligrams per cubic metre
<b>Misc mg/m<sup>3</sup></b>	Miscible

<b>Miscible</b>	Liquids form one homogeneous liquid phase regardless of the amount of either component present.
<b>mm</b>	Millimeter
<b>mPa.s</b>	Milli Pascal per second
<b>N/A</b>	Not applicable
<b>NOHSC</b>	National Occupational Health & Safety Commission
<b>OECD</b>	Organisation for Economic Co-operation and Development





<b>PEL</b>	Permissible Exposure Limit
<b>ppb</b>	Parts per billion
<b>ppm</b>	Parts per million
<b>ppm/2h</b>	Parts per million per 2 hours
<b>ppm/6h</b>	Parts per million per 6 hours
<b>RCP</b>	Reciprocal Calculation Procedure
<b>STEL</b>	Short Term Exposure Limited
<b>TLV</b>	Threshold Limit Value
<b>tne</b>	Tonne
<b>TWA</b>	Time Weighted Average
<b>ug/24H</b>	Micrograms per 24 hours
<b>UN</b>	United Nations (number)
<b>wt</b>	Weight

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.