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# Material Safety Data Sheet

## Hazardous Substance, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

**Product name:** Premium Quality Calcium Hardness Reducer

**Other Names:** Not applicable

**Recommended use:** Reduces calcium hardness in swimming pool & spa water

**Supplier:** Zodiac Group Australia Pty Ltd

**ABN:**

**Street Address:** 219 Woodpark Rd,  
Smithfield NSW 2164  
Australia

**Telephone:** +612 87866800

**Facsimile:** +612 1300781688

**Emergency telephone number:** If poisoning occurs, contact a doctor or Poisons Information Centre  
(Phone Australia 131 126, New Zealand 0800 764 766).

### 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of NOHSC Australia.

**Hazard Category:**

Xn Harmful  
C Corrosive

**Risk Phrase(s):**

R20: Harmful by inhalation.  
R35: Causes severe burns.  
R41: Risk of serious damage to eyes.

**Safety Phrase(s):**

S23: Do not breathe vapour.  
S24/25: Avoid contact with skin and eyes.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S38: In case of insufficient ventilation, wear suitable respiratory equipment.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

**Class:** 8 Corrosive

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**Product name:** Premium Quality Calcium Decreaser

**Substance Key:** ZCHR

**Issued:** 1<sup>st</sup> July, 2009

**Version:** 2.0

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Poisons Schedule (Aust): S5



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This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

## 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
1-Hydroxyethylidene-1,1-diphosphonic acid	2809-21-4	30-60%
Hydrochloric acid	7647-01-0	<5%
Ingredients determined to be non-hazardous	-	Balance
		<hr/> 100%

## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

**Skin contact:** For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

**Eye contact:** Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

**Ingestion:** Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Get to a doctor or hospital quickly.

**Notes to physician:** Treat symptomatically. Can cause corneal burns.

## 5. FIRE-FIGHTING MEASURES

**Specific hazards:** Non-combustible material.

**Fire fighting further advice:** Not combustible, however following evaporation of aqueous component residual material can burn if ignited. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** 2X

**Suitable extinguishing media:** Not combustible, however, if material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).



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## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No: 36**

## 7. HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 8 Corrosive as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### National occupational exposure limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC Australia).

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
Hydrochloric acid	5	7.5	Peak limitation		-	-

As published by the National Occupational Health & Safety Commission (NOHSC Australia).

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.



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These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances [NOHSC: 1005 (1994)]" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing appropriate respirator. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Clear colourless to pale straw colour with no odour

<b>Solubility in water:</b>	Miscible with water
<b>Specific Gravity (20 °C):</b>	1.1
<b>Relative Vapour Density (air=1):</b>	N Av
<b>Vapour Pressure (20 °C):</b>	N Av
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N App
<b>Melting Point/Range (°C):</b>	approx 0
<b>Boiling Point/Range (°C):</b>	approx 100
<b>pH:</b>	< 2 (5% solution)
<b>Moisture content (%):</b>	N Av
<b>Molecular formula:</b>	N App
<b>Molecular weight:</b>	N App

(Typical values only - consult specification sheet)  
N Av = Not available      N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.



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**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Harmful by inhalation.

**Skin contact:** Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

**Eye contact:** A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

**Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

**Long Term Effects:** No information available for product.

### Acute toxicity / Chronic toxicity

No LD50 data available for the product.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.



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**UN No:** 3265  
**Dangerous Goods Class:** 8  
**Packing Group:** II  
**Hazchem Code:** 2X  
**Emergency Response Guide No:** 36

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-HYDROXYETHYLIDENE-1,1-DIPHOPHONIC ACID)

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), cyanides of Class 6, radioactive substances (Class 7) or food and food packaging in any quantity, however exemptions may apply. Note that concentrated strong acids are incompatible with concentrated strong alkalis.

## MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**UN No:** 3265  
**Dangerous Goods Class:** 8  
**Packing Group:** II

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-HYDROXYETHYLIDENE-1,1-DIPHOPHONIC ACID)

## AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**UN No:** 3265  
**Dangerous Goods Class:** 8  
**Packing Group:** II

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-HYDROXYETHYLIDENE-1,1-DIPHOPHONIC ACID)

## 15. REGULATORY INFORMATION

**Poisons Schedule (Aust):** S5

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

### Literary reference

This Material Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd on behalf of its client.

Reason(s) For Issue: Correction to product name



# Material Safety Data Sheet

Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Premium Quality Pool Products Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

All information given in this data sheet and by the company's technical staff is compiled from the information currently available to the company. The company accepts no responsibility whatsoever for its accuracy, or for any results which may be obtained by customers. Any customer who relies upon any advice or information given in this data sheet by the company or by its technical staff does so entirely at its own risk, and the company will not be liable for any loss or damage thereby suffered notwithstanding any want of care on the part of the company or its staff in compiling or giving the advice or information.

This information is given without warranty or representation. Before using any product, always read the label carefully.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.