1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Identifier

Trade Name: Procal Extra

1.2 Relevant Identified uses of the substance or mixture and uses advised against

Uses: Disinfection of Swimming Pool Water

1.3 Details of the supplier of the safety data sheet

Company: Complete Pool Controls Ltd
Unit 2, The Park
Stoke Orchard
Bishops Cleeve
Gloucestershire
GL52 7RS

Telephone: +44 (0) 8712 229081 Fax: +44 (0) 8712 229083
E-mail: sales@cpc-chemicals.co.uk

1.4 **Emergency Telephone**

Tel: +44 (0) 8712 229081 (office hours) +44 (0) 1242 300271 (outside of office hours)

2. Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Hazard Class	Hazard Statements
Ox. Sol. 2	H272
Acute Tox. 4 *	H302
Skin Corr. 1B	H314
Aquatic Acute 1	H400
Stot SE 3	H335

For the full text of the H statements mentioned in this section see Section 16.

Most important adverse effects

Human Health: See section 11 for toxilogical information
Physical & Chemical Hazards: See section 9 for physicochemical information
Potential environmental effects: See section 12 for environmental information

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols:

Signal word: Danger

Hazard determining component of labelling: Calcium Hypochlorite

Hazard statements:

H272 May intensify fire; oxidiser
H302 Harmful if swallowed
H314: Causes severe skin burns and eye damage
H335: May cause respiratory irritation.
H400: Very toxic to aquatic life

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

(continued on Page 2)

2. Hazard Identification

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Additional Labelling: EUH031 Contact with acids liberates toxic gases
Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3 Other Hazards

Results of PBT and vPvB assessment

PBT and vPvB Not applicable.

3. Composition/information on ingredients

3.1 Mixtures Mixture of the substances listed below with nonhazardous additions.

Index No	CAS No	ENICS No	%	CLP Phrases
Calcium Hypochlorite				
017-012-00-7	7778-54-3	231-908-7	50 -100%	Ox. Sol. 2, H272; Met. Corr.1, H290; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Acute Tox. 4, H302
Calcium dihydroxide				
-	1305-62-0	215-137-3	2.5-10%	Eye Dam. 1, H318; Skin Irrit. 2, H315
Calcium Chlorate				
-	10137-74-3	233-378-2	2.5-10%	Ox. Sol. 1, H271
Calcium Chloride				
017-013-00-2	10043-52-4	233-140-8	< 2.5%	Eye Irrit. 2, H319

Additional information: For the wording of the listed risk phrases refer to section 16.

4. First Aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing contaminated by the product.
Symptoms of poisoning may occur after several hours. Medical observation for at least 48 hours after the accident is recommended.

After inhalation: Supply fresh air and call for doctor for safety reasons.

After skin contact: Consult a doctor for safety reasons. Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

After eye contact: Rinse opened eye for several minutes under running water. Remove contact lenses, if present and easy to do. Use eye protection. Call a doctor immediately.

After swallowing: Drink copious amounts of water and provide fresh air. Instantly call for doctor. Do not induce vomiting - Danger of perforation!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects: No further information available.

4.3 Indication of immediate medical attention and special treatment needed

Treatment No further information available.

5. Fire fighting measures

5.1 Extinguishing media:

Suitable media: Only use plenty of water

Unsuitable media: All but water

5.2 Special hazards arising from the substance or mixture

Specific Hazards : Can be released in case of fire:
Hydrogen chloride (HCl)
Chlorine compounds
Carbon monoxide (CO) and Carbon dioxide (CO_2)
Oxidising by development of oxygen
Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for fire-fighters

Protective equipment: In the event of fire, wear self-contained breathing apparatus.
Wear appropriate body protection (full protective suit).

Further Information: Cool endangered containers with water spray jet.
Dispose of fire debris and contaminated water in accordance with official regulations.
If without risk possible, move drums with material away from dangerous area.

6. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Wear protective clothing and keep away unprotected persons.
Remove all ignition sources. Do not breathe dust. Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions: Do not allow product to reach sewage system or water bodies. Inform respective authorities in case product reaches water or sewage system.

6.3 Methods and materials for containment and cleaning up

Cleaning up: Ensure adequate ventilation. Use neutralizing agent. Collect mechanically. Dispose of the material collected according to regulations.

Further information: Treat recovered material as described in the section "Disposal considerations.

6.4 Reference to other sections For personal protection see section 8

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:
- Ensure good ventilation/exhaustion at the workplace.
- Thorough dedusting. Prevent formation of dust. Do not breathe dust.
- Avoid skin and eye contact under any circumstances.
- Any deposit of dust which cannot be avoided must be removed regularly.
- Make sure that all applicable workplace limits are observed.

7.2 Conditions for safe storage, including any incompatibilities.

Storage : Observe all local and national regulations for storage of water polluting products.

Protection against fire : Substance/product is oxidizing when dry.

Common storage: Store away from foodstuffs, flammable substances and reducing agents. Do not store together with acids.

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7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities.

Further information: Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Store container in a well ventilated position.
Store in a locked cabinet or with access restricted to specifically instructed persons.
Protect from contamination.

7.3 Specific end uses

Specific end uses No information available

8. Exposure control/personal protection

8.1 Control parameters

Components with critical values that require monitoring at the workplace:			
Component:	**CAS No:**	WEL (Great Britain)	IOELV (European Union)
Calcium dihydroxide	1305-62-0	5 mg/m^3	5 mg/m^3
Additional Occupational Exposure Limit Values for possible hazards during processing:			
Chlorine	7782-50-5	1.5 mg/m^3	1.5 mg/m^3

8.2 Exposure controls

Engineering measures No information available

General measures General protective and hygienic measures
Keep away from foodstuffs, beverages and food.
Do not eat, drink or smoke while working.
Instantly remove any contaminated garments.
Avoid contact with the eyes and skin.
Use skin protection cream for preventive skin protection.
Wash hands during breaks and at the end of the work.

Personal protective equipment

Respiratory protection: Use breathing protection in case of dust formation. If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

Hand protection: Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
To avoid skin problems reduce the wearing of gloves to the required minimum.
Check the permeability prior to each renewed use of the glove.
The glove material has to be impermeable and resistant to the product
Due to missing tests no recommendation to the glove material can be given for the product
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Glove material: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of gloves: Protective gloves should be replaced at first signs of wear.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly fitting safety goggles (EN166). Emergency eyewash stations must be available.

Skin and body protection: Protective work clothing. Body protection must be chosen depending on activity and possible exposure.

Environmental exposure controls

General advice: Dispose of in accordance with all applicable local and national regulations

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour:		white
Odour:		like chlorine
pH-value:		Not applicable.
Change in condition	Melting / Boiling Point	not determined
Flash point:		not applicable
Inflammability (solid, gaseous)		Contact with combustible material may cause fire.
Decomposition temperature:		. 180 ‹C
Danger of explosion:		Product is not explosive.
Oxidising Properties		oxidising
Density:		~ 2 g/cm3
Bulk density at 20 ‹C:		~1 g/cm3
Solubility in / Miscibility with Water at 20 ‹C:		217 g/l

9.2 Other Information

No information available

10. Stability and reactivity

10.1 Reactivity

Reactivity: see 10.3

10.2 Chemical stability

Chemical stability: To avoid thermal decomposition do not overheat. Temperature over 180 °C. Exothermic thermal decomposition

10.3 Possibility of hazardous reactions

Hazardous reactions: Reacts with acids releasing chlorine. Reacts with flammable substances. Reacts with fabric soaked in the product (e.g. cleaning wool). Acts as an oxidizing agent on organic materials such as wood, paper and fats.

10.4 Conditions to avoid

Conditions to avoid: No further information available

10.5 Incompatible materials

Materials to avoid: Strong acids; Reducing agents; Flammable materials; Metal oxides; Metals in powder form

10.6 Hazardous decomposition products

Haz. Decomp. Products: Chlorine and chlorine compounds; Hydrogen chloride (HCl)
Carbon monoxide (CO) and Carbon dioxide (CO_2)
In certain fire conditions, traces of other toxic gases cannot be excluded.

11. Toxilogical Information

11.1 Information on toxilogical effects

LD/LC50 values that are relevant for classification:

7778-54-3 Calcium hypochlorite				
Route	**Species**	**Test**	**Value**	**Units**
Oral	Rat	LD50	850	mg/kg
Dermal	Rabbit	LD50	>2000	mg/kg
Inhalative	Rat	LC50/1 h	10	mg/l

Primary Irritant effect:

On the skin: Corrosive to skin and mucous membranes.
On the eyes: Corrosive.

Sensitization: No sensitizing effects known
Carcinogenic According to present knowledge no CMR-effects known.
Mutagenic According to present knowledge no CMR-effects known.

Additional toxicological information:
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12. Ecological Information

12.1 Toxicity

Aquatic toxicity:

7778-54-3	Calcium hypochlorite		
EC50/48 h	(water flea (daphnia magna))	0.11	mg/l
IC50/72 h	(algae)	2	mg/l
LC50/96 h	(bluegill (lepomis macrochirus))	0.049 - 0.16	mg/l
	(fathead minnow (pimephales promelas))	0.088	mg/l
	(rainbow trout (oncorhynchus mykiss))	0.13 - 0.2	mg/l

12.2 Persistence and degradability

Persistence and degradability: No further relevant information available

12.3 Bioaccumlative potential

Bioaccumlative potential: No further relevant information available

12.4 Mobility in soil

Mobility in soil: No further relevant information available

Ecotoxical effects: Very toxic for fish and aquatic organisms

12.5 Results of PBT and PvB assessment

PBT and PvB assessment: Not applicable

12.6 Other adverse effects

- Very toxic for fish and aquatic organisms.
- Do not allow product to reach ground water, water course or sewage system.
- Must not reach sewage water or drainage ditch undiluted or unneutralized.
- Danger to drinking water if even extremely small quantities leak into the ground.
- May cause long term adverse effects in the aquatic environment

13. Disposal Considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local,state or national legislation
- Avoid release to the environment
- Do not allow to enter public sewers and water coursest
- This material and/or its container must be disposed of as hazardous waste
- Do not reuse empty containers without commercial cleaning or reconditioning

Classification

Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority

14. Transport Information

Oxidising Agent

Corrosive

Marine Pollutant

14.1 UN Number UN3487

14.2 UN proper shipping name UN3487, CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE, 5.1 (8), II

14.3 Transport hazard class(es) 5.1 (OC2)+ 8

14.4 Packaging Group II

14.5 Environmental hazards Marine Pollutant

14.6 Special precautions for user Warning: Oxidisiing substances

Kemler Number 58

EMS Number F-H, S-Q

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

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14. Transport Information

Other information
During the course of carriage, this product shall be shaded from direct sunlight and all sources of heat and be placed in
Transport by post may be prohibited or restricted.

ADR

Excepted quantities (EQ):	E2
Limited quantities (LQ):	1kg
Transport category:	2
Tunnel restriction code:	E

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.
National regulations
· Information about limitation of use: Employment restrictions concerning young persons must be observed.
· Decree to be applied in case of technical fault: Quantity limits according to EC Seveso directive should be observed.
· Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water
· Other regulations, limitations and prohibitive regulations
The substance / components are listed in:
EINECS / ELINCS (Europa)
Toxic Substance Control Act TSCA (USA)

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out.

16. Other information

Full text of H-statements referred to under sections 2 and 3

H271 May cause fire or explosion; strong oxidiser.
H272 May intensify fire; oxidiser.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability, or fitness for any particular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from use of this information Users should make their own investigations to determine the suitability of the information for their particular needs and uses.

▌Indicates updated section.