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

1.1 Product Identifier Calcium Hypochlorite Granules

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 Category	Target Organs	Hazard Statements
Ox. Sol. 2			H272
Acute Tox. 4 *			H302
Skin Corr. 1B			H314
Aquatic Acute 1			H400

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Hazard Symbol/Category of danger	Risk phrases
Corrosive: C	R34
	R31
Dangerous for the environment	R50

For the full text of the R phrases 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 statements:

H272 May intensify fire; oxidiser
H314: Causes severe skin burns and eye damage
H400: Very toxic to aquatic life
H302+EUH031: Harmful if swallowed. Contact with acids liberates toxic gas.
H335+H336: May cause respiratory irritation. May cause drowsiness or dizziness
Warning! Do not use together with other products. May release dangerous gases (chlorine)

(continued on Page 2)

Trade Name: **Calcium Hypochlorite Granules**

2. Hazard Identification

Precautionary statements:

Prevention
- P261 Avoid breathing gas/mist/vapours/spray
- P273: Avoid release to the environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection

Response

P301+330 + P310 IF SWALLOWED: rinse mouth. Immediately call a poison centre

P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

Additional Labelling:

EUH031 Contact with acids liberates toxic gases

Hazardous components which must be listed on the label

Calcium Hypochlorite

2.3 Other Hazards No other information is available

3. Composition/information on ingredients

3.1 Substances Calcium Hypochlorite

Chemical nature: Solid

Chemical Name	CAS No	ENICS No	Index	H & R Phrases
Calcium Hypochlorite	7778-54-3	231-908-7	017-012-00-7	H2722:H302:H314:H400/ R34:R31:R50

4. First Aid measures

4.1 Description of first aid measures

General Advice:	Take of all contaminated clothing immediately
If Inhaled:	In case of accident by inhalation; remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
In case of skin contact:	Wash off immediately with plenty of soap & water. If irritation appears seek medical advice
In case of eye contact:	Rinse immediately with plenty of water, also under eyelids for at least 15 minutes. Remove contact lenses. Call a doctor immediately
If swallowed:	Clean mouth with water and drink plenty of water. Never give anything by mouth to an unconscious person. Call for a doctor immediately
Further Information:	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: See section 11 for more detailed information on health effects and Symptoms

Effects: See section 11 for more detailed information on health effects and Symptoms

4.3 Indication of immediate medical attention and special treatment needed

Treatment No information available

5. Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water Spray

Unsuitable extinguishing media: Fire extinguishing powder

5.2 Special hazards arising from the substance or mixture

Specific Hazards during fire fighting: Fire may cause evolution of
Hydrogen chloride (HCl)
Carbon monoxide (CO)

5.3 Advice for fire-fighters

Special protective equipment: Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA).

Further Information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment. Wear respiratory protection. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up: Use neutralizing agent.
Ensure adequate ventilation.

Further Information: Treat recovered material as described in the section 'Disposal considerations'

6.4 Reference to other sections

See Section 1 for emergency contact information
See Section 7 for information on Personal protective equipment
See section 13 for waste treatment information

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: DO NOT MIX WITH OTHER PRODUCTS
DO NOT DISSOLVE BEFORE USE
Prevent formation of dust.
Any unavoidable deposit of dust must be regularly removed.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the work day. Take off all contaminated clothing immediately. Provide adequate ventilation. Avoid contact with the skin and eyes.

(continued on Page 4)

7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities.

Requirements for storage:	Do not store product where the average daily temperature exceeds 35°C. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Store only in unopened original receptacles
Advice on protection against fire & explosion:	Product is oxidising when dry
Further information:	Keep container tightly sealed.
Advice on common storage:	Store away from flammable substances, reducing agent and acids.
Storage Temperature:	No further information available

7.3 Specific end uses No information available

8. Exposure control/personal protection

8.1 Control parameters No value assigned for this product

8.2 Exposure controls

Engineering measures Refer to protective measures listed in sections 7 and 8

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended	FP2 Filter
Hand protection	Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
Recommended	Chloroprene rubber,CR
Eye protection	Wear safety glasses approved to standard EN 166. Provide eye station
Skin and body protection	Protective work clothing

Environmental exposure controls

General advice: Do not flush into surface water or sanitary sewer systems
Avoid subsoil penetration
If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Solid
Colour:	Whitish
Odour:	Characteristic chlorine
pH @ 20°C:	10.5 / 11.5
Melting point:	Undetermined
Boiling point:	Undetermined
Flash point:	not applicable
Flammability (solid, gas)	does not ignite
Density @ 20°C:	1.3 g/cm^3

(continued on Page 5)

Trade Name: **Calcium Hypochlorite Granules**

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Water solubility:	Completely soluble
Ignition temperature:	not applicable
Thermal decomposition:	170 - 180^{o}C
Explosive properties:	Product does not present an explosion hazard
Oxidising properties:	Product is oxidising when dry

9.2 Other Information No further information available

10. Stability and reactivity

10.1 Reactivity	Contact with acids liberates toxic gas
10.2 Chemical stability	Decomposes on heating and exposure to light
10.3 Possibility of hazardous reactions	May develop chlorine if mixed with acidic solutions
10.4 Conditions to avoid	Heat
10.5 Incompatible materials	Strong oxidising agents: Alcohols, amines, aqueous acids and alkalis: Flammable substances
10.6 Hazardous decomposition products	Hydrogen chloride gas, other compounds of chlorine. Calcium compounds.

NEVER MIX THIS PRODUCT WITH ORGANIC CHLORINE (TRICHLOR OR DICHLOR) WITHIN THE SAME CONTAINER.

11. Toxilogical Information

11.1 Information on toxilogical effects

Acute Toxicity ***LD/LC50 values relevant for classification:***

Component	Calcium Hypochlorite			***7778-54-3***
Route	**Species**	**Test**	**Value**	**Units**
Oral	Rat	LD50	850	mg/kg

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes

on the eye: Strong caustic effect

Sensitization: No sensitizing effects known.

Chronic toxicity No information available

Carcinogenicity No information available

Mutagenicity No information available

Other relevant toxicity: Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of the oesophagus and stomach.

12. Ecological Information

12.1 Toxicity

Component	Calcium Hypochlorite			***7778-54-3***
Test	**Species**	**Value**	**Units**	**Time**
LC/LD50	Bobwhite quail	3,474	mg/kg	
	Bobwhite quail	5,000	ppm	dietary
LC50	Daphnia Magna	1.11	mg/l	48 hrs
LC50	Bluegill sunfish	0.088	mg/l	96 hrs
LC50	Rainbow Trout	0.16	mg/l	96 hrs
LC/LD50	Mallard duck	>5,000	ppm	dietary

12.2 Persistence and degradability No information available

12.3 Bioaccumlative potential No information available

12.4 Mobility in soil No information available

12.5 PBT and PvB assessment No information available

12.6 Other adverse effects Water hazard Class 2 (German Regulation) (self assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system
Must not reach sewage water or drainage ditch undiluted or underutilized
Danger to drinking water if even small quantities leak into the ground.

13. Disposal Considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not reuse empty containers without commercial cleaning or reconditioning
- Do not discharge into drains or the environment ,dispose to an authorised waste collection point

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

14.1 UN Number UN3487

14.2 UN proper shipping name 3487 Calcium Hypochlorite mixture, hydrated Corrosive

14.3 Transport hazard class(es)

Class	5.1 + 8
Classification Code	202
Hazard label	50
Transport Category	3
Tunnel Code	E
Special Marking	Symbol (fish and tree)
LQ	5 kg

14.4 Packaging Group III

14.5 Environmental hazards

Environmentally Hazardous	Yes
Marine Pollutant	Yes

14.6 Special precautions for user No further information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No further information available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.
This Safety Data Sheet is provided in compliance with REACH Regulation (EC) No 1907/2006

15.2 Chemical Safety Assessment
Currently we do no have any information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R31	Contact with acids liberates toxic gases
R34	Causes burns
R50	Very toxic to aquatic organisms

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

H272	May intensify fire; oxidiser
H314:	Causes severe skin burns and eye damage
H400:	Very toxic to aquatic life

H302+EUH031: Harmful if swallowed. Contact with acids liberates toxic gas.
H335+H336: May cause respiratory irritation. May cause drowsiness or dizziness

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.

- **Abbreviations and acronyms:**

ADR:	Accord europeen sur le transport des marchandises dangereuse par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID:	Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR	Dangerous goods Regulations by the 'International Air Transport Association' (IATA)
ICAO:	International Civil Aviation Organization
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances.
CAS:	Chemicals Abstracts Service (division of the Americal Chemical Society)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent

Revision	Date	By	Amendment
1	2007	Linda Brueford	Created
2	24/02/10	Linda Brueford	Sections 2 & 3 swapped round to comply with REACH, inclusion of new Environmentally Hazardous Mark for transport for packaging larger than 5kg and other minor editorial amendments.
3	30/11/10	Linda Brueford	Packing Group changed. GHS label elements added and other minor editorial amendments
4	20/03/12	Linda Brueford	Updated to European Legislation
5	17/06/13	Linda Brueford	UN number changed
6	04/02/14	Linda Brueford	LQ amount and minor editorial amendments