SAFETY DATA SHEET

1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product Name:	**Calcium Hypochlorite Tablets/Granules**
Datasheet Number:	SP152/162 2. 0. 0
Product Part Number:	SP152/162
Chemical Name:	Calcium hypochlorite
Index Number:	017-012-00-7
CAS No.:	7778-54-3

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

Pool / spa treatment

1.3 Details of the supplier of the safety data sheet

Name of Supplier:	Total Pool Chemicals Ltd
Address of Supplier:	Unit 1, Pool Bank Business Park High Street, Tarvin Chester CH3 8JH UK
Telephone:	+44 (0)1829 740290
Fax:	+44 (0)1829 741855
Responsible Person:	Steve Carder
Email:	sales@totalpool.co.uk

1.4 Emergency telephone number

+44 (0)1829 740290 (Office Hours)

2 Hazards identification

2 .1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]
- Ox. Sol. 2, H272
- Acute Tox. 4, H302
- Skin Corr. 1B, H314
- Aquatic Acute 1, H400
- EUH031
- Classification (67/548/EEC, 1999/45/EC)
- O; R8
- C: R34
- Xn; R22
- R52
- N; R50
- Additional information: For full text of R-phrases and Hazard- and EU Hazard-statements: see section 16

2 .2 Label elements

2 Hazards identification (....)

- Signal Word: Danger
- Symbols: GHS03, GHS05, GHS07, GHS09

Hazard phrases

- May intensify fire; oxidizer.
- Harmful if swallowed.
- Causes severe skin burns and eye damage.
- Very toxic to aquatic life.
- Contact with acids liberates toxic gas.
- Warning! Do not use together with other products. May release dangerous gases (chlorine).

Precautionary Phrases

- Store locked up/Keep out of reach of children.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- IF exposed or concerned: Get medical advice/attention.
- Avoid release to the environment.

2 .3 Other hazards

- Marine pollutant

3 Composition/information on ingredients

3.1 Mixtures

Chemical Name	Concentration	CAS Number	EC Number	R/H Phrases*	Symbols	Index No.
calcium hypochlorite	100	7778-54-3	231-908-7	H272, H302, H314, H400, R8, R22, R31, R34, R50	GHS03, GHS05, GHS07, GHS09, O, C, N	017-012-00-7

*See Section 16

4 First aid measures

4 .1 Description of first aid measures

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If breathing is difficult, oxygen should be given by a trained person
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash with plenty of soap and water.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4 First aid measures (....)

- Get immediate medical advice/attention.
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- Give plenty of water to drink
- Mucosal damage may contraindicate the use of gastric lavage

4 .2 Most important symptoms and effects, both acute and delayed

- Can cause damage to the eyes
- Can cause damage to the skin
- Prolonged skin or eye contact may cause chemical burns
- In cases of severe exposure, breathing difficulty may develop

4 .3 Indication of immediate medical attention and special treatment needed

- Treat symptomatically

5 Fire-fighting measures

5 .1 Extinguishing media

- In case of fire: use water for extinction
- DO NOT USE dry extinguishers containing ammonium compounds such as dry powder.

5 .2 Special hazards arising from the substance or mixture

- See Section 10.6
- Exposure to decomposition products may be a hazard to health.
- Oxidising and Corrosive

5 .3 Advice for firefighters

- Wear protective clothing as per section 8
- In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
- Wear full protective clothing including chemical protection suit

6 Accidental release measures

6 .1 Personal precautions, protective equipment and emergency procedures

- Wear protective clothing as per section 8
- Evacuate the area and keep personnel upwind
- Avoid raising dust
- Damp down to avoid dust generation
- Avoid contact with combustible material

6 .2 Environmental Precautions

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

6 .3 Methods and material for containment and cleaning up

- Remove by mechanical means
- Collect as much as possible in clean container for reuse or disposal
- Do not absorb spillage in sawdust or other combustible material
- Seek expert advice for removal and disposal of all contaminated materials and wastes

6 Accidental release measures (....)

6 .4 Reference to other sections

- See Section 7 & 8

7 Handling and storage

7 .1 Precautions for safe handling

- Avoid raising dust
- Ensure adequate ventilation
- Avoid contact with combustible material
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.

7 .2 Conditions for safe storage, including any incompatibilities

- Store away from other materials.
- Keep/Store away from clothing/.../combustible materials.
- Store in a dry place. Store in a closed container.
- Store in a well-ventilated place. Keep cool.
- Do not store above 30 °C
- Keep only in original container.

7 .3 Specific end use(s)

- No information available.

8 Exposure controls/personal protection

8 .1 Control parameters

- WEL (inhalable dust) 10 mg/m3
- WEL (respirable dust) 4 mg/m3

calcium hypochlorite

- WEL (short term) 0.5 ppm
- WEL (short term) 1.5 mg/m3

8 .2 Exposure controls

- Engineering controls should be provided which maintain airborne concentrations below the relevant guidelines

Occupational exposure controls

- In case of inadequate ventilation wear respiratory protection.
- Wear suitable protective clothing, including eye/face protection and gloves (rubber are recommended)
- When handling this substance, e.g. sampling, wear goggles giving complete eye protection


Respirator


Goggles


Gloves


Suit

9 Physical and chemical properties

9 .1 Information on basic physical and chemical properties

- Odour: chlorine
- Appearance: Solid, white, tablets, granules
- pH 12 at 1 % concentration
- Boiling point - not applicable
- Vapour pressure - not applicable
- Vapour density - not applicable
- Melting point 180 deg C with decomposition
- Water solubility 20 g/l
- Specific gravity 1.1 g/cm3
- Not flammable but will support combustion
- Oxidising
- Partition coefficient : n-Octanol/water - not known
- Evaporation rate - not known
- Viscosity - not applicable

9 .2 Other information

- Molecular weight 142.99

10 Stability and reactivity

10 .1 Reactivity

- Strong oxidising agent
- Warning! Do not use together with other products. May release dangerous gases (chlorine).

10 .2 Chemical stability

- Decomposes above 180 °C
- Heating may cause an explosion.

10 .3 Possibility of hazardous reactions

- Contact with acids liberates toxic gas.
- Exothermic reaction on heating

10 .4 Conditions to avoid

- Avoid contact with acids and alkalis
- Avoid contact with combustible material
- Avoid contact with foodstuffs
- Avoid contact with reducing agents
- Keep away from heat and sources of ignition
- Avoid contact with moisture

10 .5 Incompatible materials

- Incompatible with acids and alkalis
- Incompatible with reducing agents
- Contact with water may form explosive gases
- Contact with acids liberates toxic gas.
- Avoid contact with aluminium, zinc, copper and tin
- Avoid contact with mild or stainless steel
- Avoid contact with moist air

10 Stability and reactivity (....)

10 .6 Hazardous Decomposition Products

- Decomposition products may include considerable amounts of gas
- Decomposition products include chlorine.

11 Toxicological information

11 .1 Information on toxicological effects

- LD50 (oral,rat) 790-1260 mg/kg
- Irritation to eyes (rabbit) : Corrosive

Inhalation

- May cause dizziness
- Causes coughing
- Can cause damage to the mucous membranes
- In cases of severe exposure, burning sensation may develop
- In cases of severe exposure, delayed pulmonary oedema may develop

Contact with skin

- In cases of severe exposure, burning sensation may develop
- In cases of severe exposure, dermatitis may develop
- Can cause damage to the skin
- Causes blistering of the skin

Contact with eyes

- Causes severe irritation
- Can cause damage to the eyes

Ingestion

- The ingestion of significant quantities may cause damage to digestive system
- The ingestion of significant quantities may cause burning sensation

Carcinogenicity

- No evidence of carcinogenic effects

Teratogenicity

- No information available

Mutagenicity

- Mutagenicity (Ames Test) : None

12 Ecological information

12 .1 Toxicity

- Very toxic to aquatic life.
- LC50 (fish) 0.15 mg/l (96 hr)

12 .2 Persistence and degradability

- No information available

12 Ecological information (....)

12 .3 Bioaccumulation Potential

- No information available

12 .4 Mobility in soil

- Marine pollutant
- Large volumes may penetrate soil and contaminate groundwater

12 .5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII

12 .6 Other Adverse Effects

- No information available

13 Disposal considerations

13 .1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not reuse empty containers
- Uncontaminated material may be returnable. Contact supplier

Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)

14 Transport information

Oxidizing Agent

Corrosive


Marine Pollutant

14.1 UN Number
3487

14.2 UN Proper Shipping Name
CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE

14.3 Transport hazard class(es)
5.1 (8)

14.4 Packing group
II

14 .5 Environmental hazards

- Marine pollutant

14 .6 Special precautions for user

- See Section 7

14 .7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not applicable

Other information

14 Transport information (....)

Road/Rail (ADR/RID)

Proper Shipping Name:	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE		
ADR UN No.:	3487		
ADR Hazard Class:	5.1 (8)	ADR Packing Group:	II
Tunnel Code:	E		

Sea (IMDG)

Proper Shipping Name:	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE		
IMDG UN No.:	3487		
IMDG Hazard Class.:	5.1 (8)	IMDG Pack Group.:	II

Air (ICAO/IATA)

Proper Shipping Name:	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE		
ICAO Un No.:	3487		
ICAO Hazard Class.:	5.1 (8)	ICAO Packing Group.:	II

15 Regulatory information

15 .1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Refer to current ADR Regulations
- Refer to current CPL Regulations
- Refer to current EC Directive 82/501/EEC (the Seveso Directive)
- The List of Wastes (England) Regulations 2005 apply in the UK

15 .2 Chemical Safety Assessment

16 Other information

Text of R and S phrase codes used in this safety data sheet:- H272: May intensify fire; oxidizer.; H302: Harmful if swallowed.; H314: Causes severe skin burns and eye damage.; H400: Very toxic to aquatic life.; R22: Harmful if swallowed; R31: Contact with acids liberates toxic gas; R34: Causes burns; R50: Very toxic to aquatic organisms; R8: Contact with combustible material may cause fire.

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.