

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

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

- **1.1 Product identifier**
- **Trade name:** Calcium hypochlorite
- **CAS Number:**
7778-54-3
- **EC number:**
231-908-7
- **Index number:**
017-012-00-7
- **Registration number** 01-2119487005-40
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category**
PC8 Biocidal products
PC34 Textile dyes, and impregnating products
PC35 Washing and cleaning products (including solvent based products)
PC37 Water treatment chemicals
- **Application of the substance / the mixture**
Water disinfectant
Bleaches, cleaning solutions and disinfectants formulations.
- **Uses advised against**
Processes involving the use of incompatible substances - refer to section 10.
Processes involving extreme heat use advised against.
Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).
Any use involving significant release of aerosol, vapour or dust in the breathing zone of workers where they are exposed without suitable respiratory protective equipment (RPE).
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Complete Pool Controls Ltd
Unit 2, The Park
Stoke Orchard
Bishops Cleeve
Gloucestershire
GL52 7RS
UK

Tel: +44 (0) 8712 229081 (office hours)
email: sales@cpc-chemicals.co.uk
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
UK National Poisons Information Service. E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.



corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 1)



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



Acute Tox. 4 H302 Harmful if swallowed.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

· Hazard pictograms GHS03, GHS05, GHS07, GHS09

· Signal word Danger

· Hazard statements

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

· Precautionary statements

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· Additional information:

EUH031 Contact with acids liberates toxic gas.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

· CAS No. Description

7778-54-3 Calcium hypochlorite

· Identification number(s)

· **EC number:** 231-908-7· **Index number:** 017-012-00-7

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

The substance is corrosive to the eyes, the skin and the respiratory tract.

Corrosive on ingestion.

Inhalation of decomposition products of the substance may cause lung oedema. The effects may be delayed.

Medical observation is indicated.

Rinse contaminated clothes (fire hazard) with plenty of water.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 2)

- **After inhalation:**
DON'T DELAY!
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
DO NOT DELAY!
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
DO NOT DELAY!
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
DO NOT DELAY!
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:**
Treat symptomatically and supportively.
Refer to section 11.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Water
- **For safety reasons unsuitable extinguishing agents:**
Do not use dry chemical fire extinguishers containing ammonium compounds.
- **5.2 Special hazards arising from the substance or mixture**
Oxidizing solid.
The substance itself does not burn, but in contact with combustible substances it increases the risk of fire and can fuel any existing fire substantially.
Many reactions may cause fire or explosion.
Gives off irritating or toxic fumes (or gases) in a fire.
Decomposes in water.
Chemically unstable at increased temperature.
- **5.3 Advice for firefighters**
Fight fire from protected location or maximum possible distance.
Do not use dry chemical fire extinguishers containing ammonium compounds.
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Ensure adequate ventilation
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow product to reach sewage system or any water course in the undiluted form.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 3)

- **6.3 Methods and material for containment and cleaning up:**
 - Ensure adequate ventilation.
 - Pick up mechanically.
 - Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Avoid contact with clothing and other combustible materials.
 - Do not mix with acids.
 - Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.
 - Prevent formation of dust.
 - Ensure good ventilation/exhaustion at the workplace.
 - Rinse contaminated clothes (fire hazard) with plenty of water.
- **Information about fire - and explosion protection:**
 - Protect from heat.
 - Potentially explosive when mixed with organic substances.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Prevent any seepage into the ground.
 - Do not store on combustible materials such as wooden floors or wooden pallets.
- **Information about storage in one common storage facility:**
 - Do not store together with acids.
 - Store away from flammable substances.
 - Store away from foodstuffs.
 - Store away from reducing agents.
 - Store away from metals.
 - Do not store together with textiles.
- **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Store in a cool, dry, well-ventilated location at a temperature below 50 deg C to avoid slow decomposition.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - Do not breath dust
 - Do not eat, drink, smoke or sniff while working.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 4)

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Ensure that eyewash stations and safety showers are close to the workstation location.

Depending on the degree of exposure, periodic medical examination is suggested.

- **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

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.

- **Penetration time of glove material**

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 sealed goggles

- **Body protection:**

Impervious protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Powder
Colour:	White
Odour:	Like chlorine

- **pH-value at 20 °C:** 11.5

- **Change in condition**

Melting point/freezing point:	100 (decomp) °C
Initial boiling point and boiling range:	Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Contact with combustible material may cause fire.

- **Explosive properties:** Explosive when mixed with combustible material.

- **Density at 20 °C:** 2.35 g/cm³

- **Solubility in / Miscibility with water at 20 °C:** 214 g/l

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 5)

· **9.2 Other information**

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.· **10.2 Chemical stability**· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Not combustible but enhances combustion of other substances.

Many reactions may cause fire or explosion. Risk of fire and explosion on contact with acids, combustible substances or reducing agents.

· **10.3 Possibility of hazardous reactions**

Reacts with water and with acids releasing chlorine and oxygen.

Forms explosive compounds with ammonia and amines.

Decomposes rapidly above 175°C .

The substance is a strong oxidant. It reacts violently with combustible and reducing materials.

The solution in water is a medium strong base.

Reacts violently with ammonia, amines, nitrogen compounds and many other substances. This generates explosion hazard.

Attacks many metals. This produces flammable/explosive gas.

Attacks plastics.

Risk of explosion in contact with: amines; ammonia; organic substances; acetylene; ammonium chloride; dichloromethyl amine (heat); iron oxides; acetic acid/potassium cyanide; ethanol; urea; glycerin; coal (heat); methanol; nitromethane; sulphur; oil of turpentine; carbon tetrachloride (heat).

The substance can react dangerously with: alkali metals; combustible substances; reducing agents; moisture/water; anthracene; diethylene glycol monomethyl ether; greases;; heat; hydroxyl compounds; mercaptans; sodium hydrogensulphate; oils; phenol; hydrochloric acid, organic sulphides, thioles

· **10.4 Conditions to avoid** No further relevant information available.· **10.5 Incompatible materials:**

Reducing agents.

Strong acids.

Organic solvents.

Combustible materials.

Substances specifically listed in section 10.3 as incompatible.

Acids, ammonia, amines, organics, nitrogen containing compounds, dry chemical fire extinguishers containing mono-ammonium phosphate, combustible or flammable materials.

· **10.6 Hazardous decomposition products:**

Hydrogen chloride (HCl)

Chlorine

Oxygen

· **Additional information:**

Gives off irritating or toxic fumes (or gases) in a fire.

Decomposes in water.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**· **Acute toxicity**

Harmful if swallowed.

· **Primary irritant effect:**· **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 6)

- **Serious eye damage/irritation**
Causes severe skin burns and eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Routes of exposure: The substance can be absorbed into the body by ingestion and by inhalation.

Inhalation risk: A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

Effects of short-term exposure: The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion.

Inhalation of decomposition products may cause lung oedema. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorised by him/her, should be considered.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): 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 unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Recommended Hierarchy of Controls:
 - Minimise waste;
 - Reuse if not contaminated;
 - Recycle, if possible; or
 - Safe disposal (if all else fails).

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 7)

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1748

· **14.2 UN proper shipping name**

· **ADR**

1748 CALCIUM HYPOCHLORITE, DRY,
ENVIRONMENTALLY HAZARDOUS

· **IMDG, IATA**

CALCIUM HYPOCHLORITE, DRY

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

5.1 Oxidising substances.

· **Label**

5.1

· **IMDG, IATA**



· **Class**

5.1 Oxidising substances.

· **Label**

5.1

· **14.4 Packing group**

· **IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **Special marking (ADR):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Oxidising substances.

· **Segregation groups**

Hypochlorites

· **Stowage Category**

D

· **Stowage Code**

SW1 Protected from sources of heat.

SW11 Cargo transport units shall be shaded from direct sunlight. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo.

· **Segregation Code**

SG35 Stow "separated from" SGG1-acids

SG38 Stow "separated from" SGG2-ammonium compounds.

SG49 Stow "separated from" SGG6-cyanides

SG53 Shall not be stowed together with combustible material in the same cargo transport unit

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.06.2022

Revision: 16.06.2022

Trade name: Calcium hypochlorite

(Contd. of page 8)

	SG60 Stow "separated from" SGG16-peroxides
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Do not transport with food and feedstuffs.
· IMDG	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1748 CALCIUM HYPOCHLORITE, DRY, 5.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.
- **Contact:**
- **Abbreviations and acronyms:**
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Ox. Sol. 2: Oxidizing solids – Category 2
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

GB