

Revision: 1.2

Revision date:

16 April 2021

Date printed:

03 February 2023

Section 1. Identification

1.1 Product Identifier 0146

Product Name	CALCIUM HYPOCHLORITE BASIC
CAS Number	7778-54-3
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.
Molecular Formula	$\text{CaCl}_2 \cdot \text{O}_2 = 142.98$

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

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



Grangefield Industrial Estate
Richardshaw Road
Pudsey
West Yorkshire
LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811
Fax +44(0)113 2362703
Email safety@viclabs.co.uk
Website www.viclabs.co.uk

1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Oxidising solid, category 2	H272: May intensify fire; oxidizer.
Skin corrosion/irritation, category 1B	H314: Causes severe skin burns and eye damage.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Hazard to aquatic environment, category 1	H400: Very toxic to aquatic life.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger
Hazard Pictograms



Hazard Statements	May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. Very toxic to aquatic life.
Precautionary Statements	Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.
Supplemental Hazard Information (EU)	Contact with acids liberates toxic gas.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Calcium Hypochlorite Basic	7778-54-3	231-908-7		>99%	Ox. Sol. 2, Skin Corr. 1B, Acute Tox. 4 (O), Aquatic Acute 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. If material has reacted with an acid to form, chlorine, seek immediate medical assistance.
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & 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. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
---------	---

5.3 Advice for firefighters

Advice for firefighters	Consider all other materials in the vicinity.
-------------------------	---

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. If contact with acid is possible, use full protective clothing and breathing apparatus.

6.2 Environmental precautions

Environmental Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal Wash area down with copious amounts of water.
Minor Spillage Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.
Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Large quantities must be stored in vented containers.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits	
			Long Term (8hr TWA)	Short Term 15min period)
Calcium Hypochlorite Basic	7778-54-3	>99%	-	-

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection Use L.E.V. or natural ventilation to reduce vapour concentrations to a minimum. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hand Protection Use PVC gauntlets.
Eye Protection Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance Biege powder
Odour Faint odour of chlorine.
pH Not applicable
Boiling Point Not available
Melting Point Not applicable
Flash Point Not applicable
Upper Flammable Limit Not applicable

Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	A strong oxidising agent.
Vapour Pressure	Not applicable
Relative Density	Not available
Water Solubility	Not available

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1 Reactivity	No data available.
10.2 Chemical Stability	Very slowly decomposes with release of oxygen, this is accelerated by elevated temperatures.
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	Avoid exposure to heat and strong sunlight.
10.5 Incompatible Materials	Acids, ammonium salts, methanol, hydrocarbons, copper, nickel, iron and monel metal.
10.6 Hazardous Decomposition Products	Decomposes to form flammable oxygen and highly toxic chlorine gas.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	The solid and solutions will be extremely irritating to eyes and can cause chemical eye burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
Skin	The solid and solutions will cause burns.
LD50 Skin	Not available
Ingestion	Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus. Ingestion may lead to formation of very toxic chlorine gas by reaction with stomach contents.
LD50 Oral	850 mg/kg Rat
Inhalation	If material has reacted with acid to form toxic chlorine gas and this has been inhaled there is a serious risk of brachial an pulmonary oedema. Symptoms may be delayed for 48 hours or more.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

Section 12. Ecological

12.1 Toxicity	Material will degrade slowly to sodium chloride, sodium chlorate and oxygen. Toxic to aquatic organisms. Very toxic to fish.
LC50 Algal	0.067 mg/l Daphnia magna (48 hours)
LC50 Crustacea	Not available
LC50 Fish	0.057 mg/l Bluegill (<i>Lepomis macrochirus</i>) (96 hours)
12.2 Persistence and degradability	No data available.
12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Results of PBT & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Dispose of via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.
Contaminated Packaging	Use a licensed waste disposer.

Section 14. Transport Information

14.1 UN Number	2880
14.2 Proper Shipping Name	Calcium hypochlorite, hydrated.
14.3 Transport classes	
UN classification	5.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	50
Tunnel Restriction Code	E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Oxidising solid, category 2; Skin corrosion/irritation, category 1B; Acute toxicity, category 4 (oral); Hazard to aquatic environment, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H272, H302, H314, H400
May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. Very toxic to aquatic life.

Precautionary Statements P280, P260, P301+P330+P331, P303+P361+P353, P304+P340, P305+P351+P338
Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

Supplemental Hazard Information (EU) EUH031
Contact with acids liberates toxic gas.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.2 (Supercedes revision 1.1)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 03 February 2023

Copyright: 2023 Vickers Laboratories Ltd