

Calcium Hypochlorite (HTH)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9
Issue date: 2024/02/16 Revision date: 2024/02/16 Supersedes: 2024/02/16 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : Calcium Hypochlorite (HTH)

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

Use of the substance/mixture : Industrial, municipal and commercial water treatment application

1.3. Supplier's details

Distributor

Rolfes Chemicals Pty Ltd
Cnr Brammer and strachan street
P.O. Box 14075, Wadeville
1422 Germiston JHB – South Africa Gauteng
South Africa
T +27 11 873 0157

1.4. Emergency telephone number

Emergency number : 0861114753

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Oxidising Solids, Category 2	H272
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Full text of H-statements: see section 16	

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA)	: Danger
Hazardous ingredients	: Calcium hypochlorite; Calcium hydroxide
Hazard statements (GHS ZA)	: 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 (GHS ZA)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 - Keep away from clothing and other combustible materials. P260 - Do not breathe dusts or mists. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P301+P317 - IF SWALLOWED: Get medical help. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P316 - Get emergency medical help immediately.
P317 - Get medical help.
P321 - Specific treatment (see supplemental first aid instruction, ANTIDOTE, specific cleansing agent(s) on this label).
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO₂) to extinguish.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : May intensify fire; oxidiser, Harmful if swallowed, Causes severe skin burns and eye damage, Causes serious eye damage, Very toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Calcium hypochlorite	CAS-No.: 7778-54-3	60 – 70	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10)
Calcium hydroxide	CAS-No.: 1305-62-0	1 – 5	Skin Corr. 1, H314 Eye Dam. 1, H318

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May intensify fire; oxidiser.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust, fume, gas, mist, spray, vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours, spray, mist, gas, dust, fume.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials : combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: granules.
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: 12,36
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 170 – 180 °C
Flammability	: Non flammable.
Vapour pressure	: No data available
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: 6,9
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

May intensify fire; oxidiser.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Calcium Hypochlorite (HTH)

LD50 oral rat	850 mg/kg
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Calcium hypochlorite (7778-54-3)

LD50 oral rat	850 mg/kg Source: IUCLID
LD50 dermal rabbit	> 2000 mg/kg Source: IUCLID

Calcium hydroxide (1305-62-0)

LD50 oral rat	> 2000 mg/kg Source: ECHA
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Skin corrosion/irritation : Causes severe skin burns.
pH: 12,36
Serious eye damage/irritation : Causes serious eye damage.
pH: 12,36
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Calcium Hypochlorite (HTH)

Viscosity, kinematic	Not applicable
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Calcium hypochlorite (7778-54-3)

Animal studies and expert judgment for classification	False
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Calcium hydroxide (1305-62-0)

Animal studies and expert judgment for classification	False
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Calcium hypochlorite (7778-54-3)

LC50 - Fish [1]	0,06 mg/l Source: ECOTOX
EC50 - Crustacea [1]	0,073 mg/l Source: ECOTOX
Partition coefficient n-octanol/water (Log Pow)	-2,46 Source: SIDS

Calcium hydroxide (1305-62-0)

LC50 - Fish [1]	50,6 mg/l Source: EHCA
EC50 - Crustacea [1]	49,1 mg/l Source: ECHA
EC50 72h - Algae [1]	184,57 mg/l Source: EHCA

12.2. Persistence and degradability

Calcium Hypochlorite (HTH)

Persistence and degradability	No additional information available
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12.3. Bioaccumulative potential

Calcium Hypochlorite (HTH)

Bioaccumulative potential	No additional information available
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Calcium hypochlorite (7778-54-3)

Partition coefficient n-octanol/water (Log Pow)	-2,46 Source: SIDS
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12.4. Mobility in soil

Calcium Hypochlorite (HTH)

Mobility in soil	No additional information available
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Calcium hypochlorite (7778-54-3)

Partition coefficient n-octanol/water (Log Pow)	-2,46 Source: SIDS
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12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
1748	Not applicable	Not applicable
14.2. Proper Shipping Name		
CALCIUM HYPOCHLORITE, DRY	Not applicable	Not applicable
14.3. Transport hazard class(es)		
5.1	Not applicable	Not applicable
		
14.4. Packing group		
II	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

SANS

Special provisions (SANS) : 313, 314
Limited quantities (SANS) : 1 kg
Limited quantities (SANS) : 1 kg
Packagings, large packagings and IBCs Packing instructions (SANS) : P002, IBC08
Packagings, large packagings and IBCs Special packing instructions (SANS) : PP85, B2, B4, B13

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

SECTION 16: Other information

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Full text of H-statements	
H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H400	Very toxic to aquatic life

Safety Data Sheet (SDS), South Africa

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.