Supertherm SAFETY DATASHEET

REVISION 4 – 23/10/2025

Section 1: Identification of the Substance and Company

1.1 Product Identifier

Substance or preparation trade name: Supertherm

Other Names: Cornerstone Supertherm, Super-Therm, SuperTherm

1.2 Identified uses for the product

Render for insulation purposes in construction.

1.3 Details of the Manufacturer

Company name & address:

Cornerstone

Brims Park, Old Callywith Road, Bodmin, PL31 2DZ

Telephone:

+44 1208 79779 (Phone service provided in English)

Email address:

Sales@cornishlime.co.uk

1.4 Emergency Information and Contacts

You can contact Cornerstone on +44 1208 79779 (7.30am-5pm, Monday to Friday only)

In the event of an Emergency in the UK dial 999 or 112 and ask for the relevant services.

In Europe dial 112; this datasheet must be made available to the emergency services.

You can contact the UK Chemicals Helpline on number 0330 159 1985 (Opening hours 9am to 5pm) Monday to Friday

In the event of a poisoning Healthcare professionals can contact the UK National Poisons Centre at https://www.npis.org/, or their database at https://www.toxbase.org/; please note this service is not available to the general public.

Section 2: Hazard Identification

2.1 Classification of the Substance

Classification according to Regulation (EC) 1272/2008

Hazard classes

Skin Corrosion/Irritation: hazard category 1, Sub-category B.

STOT Single Exposure; Inhalation: hazard category 3

Serious eye damage: hazard category 1

Metal Corrosion: hazard Category 1

2.2 Labelling Information

Labelling according to Regulation (EC) 1272/2008

Signal Word: *Danger*

Hazard Statements

H315: Causes skin irritation

H318: Causes serious eye damage

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

H335: May cause respiratory irritation

Precautionary Statements

P102: Keep out of reach of children

P280: Wear protective gloves/protective clothing/eye protection/face protection

P202: Do not handle until all safety precautions are read and understood

P261: Avoid breathing dust.

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

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTRE or doctor.

P302 + P303 + P352 + P313: IF ON SKIN: Remove Contaminated Clothing. Wash with plenty of water. If skin irritation or rash occurs: seek medical advice/attention.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell.

P501: Dispose of contents/container to a suitable waste collection point in accordance with current waste regulations.

2.3 Other Hazards

- The mixture does not meet the criteria for PBT or vPvB substance.
- Lime products can cause serious and permanent damage to the eyes, appropriate eye protection should be mandatory at all times.

Section 3: Product Composition

3.1 Product Characterisation: Mixture

Main Constituents in the mixture listed below.

Raw Material	Approximate Content w/w	CAS No.	EC No.	CLP Hazard Category	Hazard Statements
Calcium dihydroxide	30-50%	1305-62-0	215-137-3	• STOT Single Exp. 3, Route of exposure: Inhalation • Skin Irritation 2 • Eye Damage 1	H315: Causes skin irritation H318: Causes serious eye damage H335: May cause respiratory irritation
Sodium Metasilicate	>5%	10213-79-3	229-912-9	• Skin Corrosion 1B • Eye Damage 1 • STOT Single Exp. 3, Route of exposure: H335 Inhalation • Metal Corrosion 1	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

Section 4: First Aid Measures

4.1 First Aid Measures

Hazard Class: No special measures required.

Skin contact: Carefully and gently brush the contaminated body surfaces in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary, seek medical advice.

Eye contact: Rinse eyes immediately with plenty of water/saline solution and seek medical advice.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.

Inhalation: Move patient to fresh air, put in a seated position, give oxygen if required. If the patient doesn't improve seek medical attention.

4.2 Symptoms & Effects, Acute & Delayed

This product is not toxic. This product is irritating to skin and eyes, can cause chemical burns if not washed off. Risk of serious and permanent damage to eyes if not washed out – keep saline eyewash available when working with Lime. In case of eye irritation after washing seek immediate medical attention. Long term exposure to respirable silica can cause irreversible lung damage.

4.3 In Case of Need of Medical Treatment

Refer to Section 4.1, make this SDS available on request to medical professionals.

Section 5: Fire Fighting Measures

5.1 Suitable Extinguishing Media

The product is not combustible. Use a dry powder, foam or CO2 fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Unsuitable Extinguishing Media

Do not use water.

5.3 Special Hazards in Fire

Avoid generation of dust. Use breathing apparatus. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.4 Required Special Protective Equipment for Fire Fighters

Use Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves, and avoid aeration of dust.

Section 6: Accidental Release Measures

6.1 Personal Precautions & P.P.E.

- Ensure adequate ventilation.
- Keep unprotected persons away.
- Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).
- Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).
- We recommend gloves, goggles and a half face PFF3 mask.

6.2 Environmental Precautions

Contain the spillage. Keep the material dry if possible. Cover area, if possible, to avoid unnecessary hazard. Avoid brushing which will cause dust clouds. Avoid uncontrolled spills to watercourses and drains (pH increase). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body. Inform the Environment Agency or other relevant regulatory body in the event of a large spillage into watercourses or drains (spillage may cause pH increase).

6.3 Methods for cleaning

Wet down the material and shovel into a suitable container OR dry vacuum with a HEPA filter (preferred method), wash away the minimum amount possible. In all cases avoid dust formation as much as possible. Wear suitable P.P.E. at all times.

Section 7: Handling and Storage

7.1 Safe Handling

Avoid contact with skin and eyes. Wear protective equipment (refer to section 8 of this safety data sheet). Do not wear contact lenses when handling this product. It is also advisable to have individual pocket eyewash. When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.

Avoid inhalation or ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

7.2 Storage

The substance should be stored under cool frost-free conditions to avoid product degradation from condensation. Any contact with air should be avoided. Keep away from acids, significant quantities of paper, straw, and nitro compounds. Keep out of reach of children. Do not use aluminium for transport or storage.

7.3 Specific End Uses

Please see the relevant Product Datasheet

Section 8: Exposure Controls

8.1 Control Parameters

8.1.1 Lime Dust

SCOEL recommendation (SCOEL/SUM/137 February 2008; see Section 16.6):

- Occupational Exposure Limit (OEL), 8 h TWA: 1 mg/m³ respirable dust of calcium dihydroxide
- Short-term exposure limit (STEL), 15 min: 4 mg/m³ respirable dust of calcium dihydroxide
- PNEC aqua = 490 μ g/l
- PNEC soil/groundwater = 1080 mg/l

8.1.2 Sodium Metasilicate

DNEL figures

- Workers - Dermal; Long term : 1.49 mg/kg/day
- Workers - Inhalation; Long term : 6.22 mg/m³

8.2 Exposure Controls

8.2.1 Personal Protection Equipment:

Eye protection: Do not wear contact lenses. Wear tight fitting goggles with side shields, or wide vision full goggles in accordance with European standard EN166 (or equivalent). It is also advisable to have individual pocket eyewash.

Skin protection: Since calcium dihydroxide is classified as irritating to skin, dermal exposure has to be minimized as far as technically feasible. The use of protective gloves (nitrile), protective standard working clothes fully covering skin, full length trousers, long sleeved overalls, with close fittings at openings and shoes resistant to caustics and avoiding dust penetration are required to be worn. All clothing and gloves should be made to the relevant CE/UKCA Standards.

Inhalation protection: Calcium dihydroxide is acutely irritating to lungs. Long term exposure to respirable silica can cause significant irreversible lung damage – work in ventilated areas and wear respiratory protection when material is dry. Half face masks are recommended to European standard EN149 (or equivalent).

8.2.2 Environmental Measures:

Avoid releasing to the environment. Contain the spillage. Any large spillage into watercourses must be alerted to the regulatory authority responsible for environmental protection or other regulatory body.

Section 9: Physical and Chemical Properties

Physical state: low density dry powder

Colour: off white, sometimes with light blue hue

Odour: Distinct odour, not unlike acrylic, often with an earthy or fruity hue.

pH: 12-13

Melting point: > 450 °C (Lime - study result, EU A.1 method)

Boiling point: N/A (solid with a melting point > 450 °C)

Flashpoint: not applicable (solid with a melting point > 450 °C)

Explosive properties: Product is not explosive, but one of the ingredients may form explosive air/dust mixtures. When handling as a powder avoid ignition sources or static discharges.

Vapour pressure: not applicable (solid with a melting point > 450 °C)

Relative density: 0.2-0.4 Kg/L – will vary based on humidity, mix ratio, sand type and aeration of product

Solubility: (lime) 1844.9 mg/L (study results, EU A.6 method) – from powder form

Oxidising properties: N/A

Section 10: Stability and Reactivity

10.1 Reactivity: Reacts with water to form a solid mass.

10.2 Chemical Stability: Under storage at normal ambient temperatures (minus 40° C to + 40° C), the product is stable.

10.3 Materials to avoid: Calcium dihydroxide reacts exothermically with acids to form salts.

10.4 Conditions to avoid: Minimise exposure to air and moisture. Avoid excessive heat for prolonged periods

10.5 Incompatible Materials: Avoid contact with Aluminium, brass, zinc, tin and copper. Avoid strong acids, or oxidising agents.

10.6 Hazardous decomposition products: None.

10.7 Further information: Heating may generate the following products: Toxic and corrosive gases or vapours.

Section 11: Toxicological information

Acute toxicity:

- Calcium dihydroxide and Sodium metasilicate are not acutely toxic.
- $Ca(OH)_2$ - Oral LD_{50} > 2000 mg/kg bw (OECD 425, rat)
- $Ca(OH)_2$ - Dermal LD_{50} > 2500 mg/kg bw (OECD 402, rabbit)
- Na_2SiO_3 - LD_{50} > 5000 mg/kg/day, Dermal, rat
- Inhalation no data available.
- Classification for acute toxicity is not warranted.

Excessive exposure may affect human health as follows:

Skin corrosion/irritation: Calcium dihydroxide is irritating to skin.

Serious eye damage/irritation: Calcium dihydroxide entails a risk of serious damage to the eye.

Inhalation/ingestion: From current data it is concluded that Ca(OH)2 is irritating to the respiratory tract. Long term respiratory exposure to airborne respirable crystalline silica may result in silicosis which is a disabling respiratory disease causing decreased pulmonary function.

Sensitisation: Calcium hydroxide is considered not to be a skin sensitiser, based on the nature of the effect (pH shift) and the essential requirement of calcium for human nutrition.

Reproductive toxicity: Fertility - NOAEL >159 mg/kg/day, Rat & Developmental toxicity: - NOAEL: >200 mg/kg/day, , Mouse

Long Term Toxic Effects: Silicosis from silica inhalation.

Carcinogenicity: Prolonged inhalation of silica dust can result in an increased risk for lung cancer.

Current classification: Group 1 (IARC Monograph 100, 2012)

Section 12: Ecological information

12.1 Toxicity

12.1.1 Acute/Prolonged toxicity to fish

LC50 (96h) for freshwater fish: 50.6 mg/l
LC50 (96h) for marine water fish: 457 mg/l

12.1.2 Acute/Prolonged toxicity to aquatic invertebrates
EC50 (48h) for freshwater invertebrates: 49.1 mg/l
LC50 (96h) for marine water invertebrates: 158 mg/l

12.1.3 Acute/Prolonged toxicity to aquatic plants
EC50 (72h) for freshwater algae: 184.57 mg/l
NOEC (72h) for freshwater algae: 48 mg/l

12.1.4 Toxicity to micro-organisms e.g. bacteria

At high concentration, through the rise of temperature and pH, calcium dihydroxide is used for disinfection of sewage sludges.

12.1.5 Chronic toxicity to aquatic organisms

NOEC (14d) for marine water invertebrates: 32 mg/l

12.1.6 Toxicity to soil dwelling organisms

EC10/LC10 or NOEC for soil macroorganisms: 2000 mg/kg soil dw

EC10/LC10 or NOEC for soil microorganisms: 12000 mg/kg soil dw

12.1.7 Toxicity to terrestrial plants

NOEC (21d) for terrestrial plants: 1080 mg/kg

12.1.8 General effect

Acute pH-effect: Although this product is useful to correct water acidity, an excess of more than 1 g/l may be harmful to aquatic life. pH-value of > 12 will rapidly decrease as result of dilution and carbonation.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

Carbonation occurs when the product reacts with water and air. The product will carbonate and harden, after which it is minimally soluble as calcium carbonate. The product has low mobility in soils.

12.5 Results of PBT and vPvB assessment

No further relevant information available.

12.6 Endocrine disrupting properties

No further relevant information available.

12.7 Other adverse effects

No other adverse effects identified.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Disposal of calcium dihydroxide should be in accordance with local and national legislation, including but not limited to, EWC code 20 01 15* alkalines. Processing, use or contamination of this product may change the waste management options due to its high pH.

Dispose of container and unused contents in accordance with applicable member state and local requirements. Waste mixture should not be disposed of by release to sewers. EWC code 17 09 03*, other construction and demolition wastes (including mixed wastes) containing hazardous substances.

The used packing is only meant for packing this product; it should not be reused for other purposes. After usage, empty the packing completely before disposal according to local and national guidance.

Section 14: Transport information

14.1 UN-Number: n/a

14.2 UN proper shipping name: n/a

14.3 Transport hazard classes: n/a

14.4 Packing group: n/a

14.5 Environmental hazards: n/a

14.6 Specific precautions for user: n/a

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: n/a

Calcium dihydroxide is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea).

Section 15: Regulatory information

Authorisations: Not required

Restrictions on use: None

Other EU regulations: Calcium dihydroxide is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.

National regulations: Water endangering class 1 (Germany)

Section 16: Other Information

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

This SDS includes the relevant information needed to produce a COSHH; we cannot supply COSHH statements as this is a site-specific assessment which includes handing methods and identification of other relevant hazards on site.

For any further information please contact the manufacturer on +44 1208 79779: 7.30am to 5pm, Monday to Friday.

16.1 Document Control

Datasheet version and issue date is listed on the first page of this document. More modern versions of this document will supersede this SDS, with no exclusions.