

SAFETY DATA SHEET

Nordkalk

Nordkalk SL

Nordkalk

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 15.09.2015

Revision date 27.1.2023

1.1. Product identifier

Product name Nordkalk SL

Synonyms Hydrated lime, Slaked lime, Air slaked lime, Building lime, Fat lime, Chemical lime, Finishing lime, Mason's lime, Calcium dihydroxide, Calcium hydroxide, Calcium hydrate, Lime, Lime water

IUPAC name Calcium dihydroxide – $\text{Ca}(\text{OH})_2$

REACH Reg. No. 01-2119475151-45-XXXX

CAS No. 1305-62-0

EC No. 215-137-3

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

Use of the substance / mixture Building material industry, Chemical industry, Agriculture, Biocidal use, Environmental protection (e.g. flue gas treatment, waste water treatment, sludge treatment), Drinking water treatment, Feed, food and pharmaceutical industry, Civil engineering, Paper and paint industry

Main intended use PC-TEC-OTH Other products for chemical or technical processes

1.3. Details of the supplier of the safety data sheet

Company name Nordkalk Oy Ab

Postal address Skräbbölevägen 18

Postcode FI-21600

City Pargas

Country Finland

Telephone number +358 20 753 7000

Email	sds@nordkalk.com
Website	www.nordkalk.com

1.4. Emergency telephone number

Emergency telephone	Telephone number: 112 Description: Emergency telephone number (in Finland) Open 24 hours a day. Telephone number: +358 800 147 111 or +358 9 471 977 Description: Poison Information Centre (in Finland), P.O. Box 790 (Tukholmankatu 17), 00029 HUS Open 24 hours a day.
Identification, comments	Please contact the Emergency Centre in your own country, e.g. 112 in European Union countries.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335
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2.2. Label elements

Hazard pictograms (CLP)



Signal word	Danger
Hazard statements	H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation.
Precautionary statements	P102 Keep out of reach of children. P261 Avoid breathing dust/spray. P280 Wear protective gloves / protective clothing / eye protection / face protection. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor / physician. P501 Dispose of contents / container in accordance with local regulation.

2.3. Other hazards

PBT / vPvB	The substance does not meet the criteria for PBT or vPvB substance according to Regulation (EC) No 1907/2006, Annex XIII.
Other hazards	The substance is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition / information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents	Notes
Calcium dihydroxide	CAS No.: 1305-62-0 EC No.: 215-137-3 REACH Reg. No.: 01-2119475151-45-XXXX	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	85 - 98 %	

SECTION 4: First aid measures

4.1. Description of first aid measures

General	If the situation is unclear or symptoms persist, seek medical attention.
Inhalation	Move exposed person immediately to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Skin contact	Brush off loose particles from skin. Rinse the skin immediately with plenty of water. Take off contaminated clothing and wash before reuse. If skin irritation or other symptoms persist, seek medical attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, holding eyelids open. Remove contact lenses, if present and easy to do, and continue rinsing. Get medical advice/attention.
Ingestion	Do not induce vomiting. Rinse the mouth and give 1-2 glasses of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

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

Acute symptoms and effects	Causes skin irritation. May irritate airways. Risk of serious eye damage.
Delayed symptoms and effects	None known.

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

Other information	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Dry chemical, carbon dioxide or foam. Use an extinguishing agent suitable for the surrounding fire.
Improper extinguishing media	None known.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The product is non-combustible. No specific hazards.
Hazardous combustion products	No hazardous combustion products known.

5.3. Advice for firefighters

Personal protective equipment	Wear appropriate protective equipment and self-contained breathing apparatus.
Other information	Avoid dust formation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Ensure adequate ventilation. Keep unnecessary and unprotected people from entering. Avoid generation and spreading of dust. Stop leak if safe to do so. Avoid humidification.
Personal protection measures	Wear appropriate personal protective equipment. Avoid contact with skin or eyes. Avoid breathing dust.

6.2. Environmental precautions

Environmental precautionary measures	Prevent spreading over great surfaces (e.g. by damming or installing oil booms). Keep the product dry. Cover area if possible to avoid unnecessary dust hazard. Avoid release into drains, sewers or waterways. In case of environmental contamination, inform local authorities.
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6.3. Methods and material for containment and cleaning up

Containment	Avoid generation and spreading of dust. Pick up solid product mechanically. Store in a dry place.
Clean up	Collect product with a vacuum cleaner or sweep it up. Keep the material dry.

6.4. Reference to other sections

Other instructions	Safe handling: see point 7. Personal protective equipment: see point 8. Waste disposal: see point 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid contact with skin or eyes. Avoid breathing dust. Wear appropriate personal protective equipment. Avoid generating excess dust. Ensure adequate ventilation (use process enclosures or local exhaust ventilation if necessary). Do not wear contact lenses when handling this product. Eyewash facilities must be available when handling this product.
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Protective safety measures

Preventive measures to prevent aerosol and dust generation	Prevent formation of dust.
Advice on general occupational hygiene	Handle in accordance with good industrial hygiene and safety practices. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands and exposed skin areas before breaks and at the end of workday. Take off contaminated clothing immediately and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in a dry place. Keep out of reach of children.
Conditions to avoid	Keep away from moisture and water. Do not allow contact with air. For incompatible materials see point 10.5.

Conditions for safe storage

Technical measures and storage conditions	Store in a dry, well-ventilated area.
Packaging compatibilities	Unsuitable packaging materials and coatings: Aluminium.

7.3. Specific end use(s)

Specific use(s)	See the identified uses in table 1 of the Appendix of this SDS.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Calcium dihydroxide	CAS No.: 1305-62-0	Country of origin: United Kingdom Limit value (8 h) : 5 mg/m ³ Country of origin: United Kingdom Limit value (8 h) : 1 mg/m ³ Limit value (short term) Value: 4 mg/m ³ Comments: Respirable fraction Country of origin: European Union Limit value (8 h) : 5 mg/m ³	

Source: Directive 91/322/
EEC
Comments: IOELV
Country of origin: European
Union
Limit value (8 h) : 1 mg/m³
Limit value (short term)
Value: 4 mg/m³
Source: Directive (EU)
2017/164
Comments: IOELV
Particle fraction: Respirable
Country of origin: Finland
Limit value (8 h) : 1 mg/m³
Limit value (short term)
Value: 4 mg/m³

DNEL / PNEC

Substance

Calcium dihydroxide

DNEL

Group: Professional

Route of exposure: Acute inhalation (local)

Value: 4 mg/m³

Comments: respirable dust

Group: Professional

Route of exposure: Long-term inhalation (local)

Value: 1 mg/m³

Comments: respirable dust

Group: Consumer

Route of exposure: Acute inhalation (local)

Value: 4 mg/m³

Comments: respirable dust

Group: Consumer

Route of exposure: Long-term inhalation (local)

Value: 1 mg/m³

Comments: respirable dust

PNEC

Route of exposure: Freshwater

Value: 0,49 mg/l

Route of exposure: Saltwater

Value: 0,32 mg/l

Route of exposure: Sewage treatment plant STP

Value: 3 mg/l

Route of exposure: Soil

Value: 1080 mg/kg

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure Handle the product in closed systems or provide sufficient ventilation. Use local exhaust ventilation if necessary. Emergency eyewash equipment must be available at workplace.

Eye / face protection

Suitable eye protection Use tight-fitting safety goggles. (EN 166:2001)

Eye protection, comments Do not wear contact lenses when handling this product. It is advisable to have individual pocket eyewash. Appropriate for alkali chemicals.

Hand protection

Suitable gloves type Use appropriate chemical-resistant, impervious gloves. (EN ISO 374-1:2018, type A or B)

Suitable materials Nitrile rubber.

Skin protection

Suitable protective clothing Wear appropriate chemical-resistant, impervious protective clothing. Wear appropriate protective footwear.

Additional skin protection measures Wash contaminated skin after exposure. Remove contaminated clothing and shoes and wash/clean them before reuse.

Respiratory protection

Respiratory protection necessary at If it is not possible to reduce exposure levels to below exposure limit values by ventilation, use appropriate respirator.

Recommended type of equipment Particle filter mask. (FFP1/FFP2/FFP3)

Respiratory protection, comments See the relevant exposure scenario in the Appendix.

Thermal hazards

Thermal hazards Not relevant.

Appropriate environmental exposure control

Environmental exposure controls Prevent entry into sewers or the environment. All ventilation systems should be filtered before discharge to atmosphere.

Environmental exposure controls, comments See the relevant exposure scenario in the Appendix.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid. Powder.

Colour White. Light brown. Beige.

Odour Odourless.

Odour limit	Comments: Not relevant.
pH	Status: In aqueous solution Value: 12,4 Comments: Saturated solution Temperature: 20 °C
Melting point / melting range	Value: > 450 °C Method: EU A.1
Boiling point / boiling range	Comments: Not applicable.
Flash point	Comments: Not applicable.
Flammability	Not flammable. (EU A.10)
Explosion limit	Comments: Not applicable.
Vapour pressure	Comments: Not applicable.
Vapour density	Comments: Not applicable.
Particle characteristics	d50: 6.6 - 11.7 µm (laser diffraction) (ISO13320:2020)
Relative density	Value: 2,24 Method: EU A.3
Bulk density	Value: 0,40 - 0,60 g/cm ³
Solubility	Medium: Water Value: 1844,9 mg/l Method: EU A.6
Partition coefficient: n-octanol/ water	Comments: Not applicable. Method: EU A.16
Auto-ignition temperature	Comments: Not self-igniting.
Decomposition temperature	Value: > 450 °C
Viscosity	Comments: Not applicable.

9.2. Other information

9.2.2. Other safety characteristics

Comments	None reported.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Dissociates in aqueous media. Reacts with carbon dioxide to form calcium carbonate, which is a common material in nature. When heated above 450 °C, calcium dihydroxide decomposes to produce calcium oxide and water.
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10.2. Chemical stability

Stability	Chemically stable under normal storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reacts exothermically with acids (releasing heat).

10.4. Conditions to avoid

Conditions to avoid Do not allow contact with air. Protect from moisture. Do not store in damp conditions or areas of high humidity.

10.5. Incompatible materials

Materials to avoid Acids. Water.
Aluminium. Brass. In the presence of moisture produces hydrogen which may cause risk of explosion.

10.6. Hazardous decomposition products

Hazardous decomposition products No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Substance Calcium dihydroxide

Acute toxicity

Effect tested: LD50
Route of exposure: Oral
Method: OECD 425
Value: > 2000 mg/kg bw
Animal test species: Rat

Effect tested: LD50
Route of exposure: Dermal
Method: OECD 402
Value: > 2500 mg/kg bw
Animal test species: Rabbit

Other toxicological data The product is not classified as acutely toxic.

Other information regarding health hazards

Substance Calcium dihydroxide

Skin corrosion / irritation test result

Toxicity type: Skin irritation
Method: In vivo
Species: Rabbit
Evaluation result: Irritating.

Toxicity type: Skin corrosion
Method: In vitro OECD 431
Evaluation result: Not corrosive.

Assessment of skin corrosion / irritation, classification Causes skin irritation.

Substance Calcium dihydroxide

Eye damage or irritation, test results	Toxicity type: Eye damage Method: In vivo Species: Rabbit Evaluation result: Causes serious eye damage
Assessment of eye damage or irritation, classification	Causes serious eye damage.
Sensitisation	The product is not classified as a respiratory or skin sensitiser.
Mutagenicity	The product is not classified as a mutagen. (In vitro, OECD 471, 473, 476 read across)
Carcinogenicity, other information	The product is not classified as a carcinogen.
Reproductive toxicity	The product is not classified as toxic to reproduction.
Assessment of specific target organ toxicity - single exposure, classification	May cause respiratory irritation.
Assessment of specific target organ toxicity - repeated exposure, classification	The product is not classified as toxic to specific target organs at repeated exposure.
Assessment of aspiration hazard, classification	The product is not classified as an aspiration hazard.

Symptoms of exposure

In case of ingestion	Irritates the gastrointestinal tract.
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11.2 Other information

Endocrine disruption	No endocrine disrupting properties known.
Other information	No other health effects reported.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Calcium dihydroxide
Aquatic toxicity, fish	Value: 50,6 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: freshwater fish
	Value: 457 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: marine water fish
Substance	Calcium dihydroxide
Aquatic toxicity, algae	Value: 184,57 mg/l Effect dose concentration: EC50 Test duration: 72 hour(s) Species: freshwater algae

	Value: 48 mg/l Effect dose concentration: NOEC Test duration: 72 hour(s) Species: freshwater algae
Substance	Calcium dihydroxide
Aquatic toxicity, crustacean	Toxicity type: Chronic Value: 32 mg/l Effect dose concentration: NOEC Test duration: 14 day(s) Species: marine water invertebrates
	Value: 49,1 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Species: freshwater invertebrates
	Value: 158 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: marine water invertebrates
Substance	Calcium dihydroxide
Toxicity to earthworm	Value: 2000 mg/kg Species: macro organisms Method: soil dry weight
Substance	Calcium dihydroxide
Toxicity to soil microorganisms	Value: 12000 mg/kg Species: microorganisms Method: soil dry weight
Plant toxicity	Value: 1080 mg/kg Effect dose concentration: NOEC Test duration: 21 day(s)
Impact on sewage treatment	Comments: At high concentration, through the rise of temperature and pH, the product is used for disinfection of sewage sludges.
Ecotoxicity	The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	Not relevant for inorganic substances.
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12.3. Bioaccumulative potential

Bioaccumulation, evaluation	Not relevant for inorganic substances.
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12.4. Mobility in soil

Mobility	The product is sparingly soluble, presents a low mobility in most soils.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not relevant for inorganic substances.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties known.

12.7. Other adverse effects

Additional ecological information The product is not classified as hazardous to the environment. Prevent entry into drains, sewers, waterways or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical Avoid release to the environment.

Appropriate methods of disposal for the contaminated packaging The used packaging is only meant for packing this product; it should not be reused for other purposes. After usage, empty the packing completely.

Other information Processing, use or contamination of this product may change the waste management options.
Dispose of in compliance with local and national regulations.

SECTION 14: Transport information

Dangerous goods No

14.1. UN number

Comments The product is not classified for transportation.

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

IMDG Marine pollutant No

Comments The product is not classified as hazardous to the environment.

14.6. Special precautions for user

Special safety precautions for user Avoid any release of dust during transportation by using air-tight tanks.

14.7. Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

Legislation and regulations No specific regulations.

15.2. Chemical safety assessment

Chemical safety assessment performed Yes

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3) H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Training advice Read safety data sheet.

Key literature references and sources for data Previous version of the SDS (25.02.2019)
EULA Safety Data Sheet for Calcium dihydroxide (v. 4.0/EN, December 2020)
EH40/2005 Workplace exposure limits (4th ed, 2020)

Abbreviations and acronyms used DNEL: Derived No-Effect Level
EC50: Effective concentration: concentration which kills or immobilises 50 % of exposed organisms
LC50: Lethal concentration 50 % (median lethal concentration): concentration which kills 50 % of exposed organisms
LD50: Lethal dose 50 % (median lethal dose): dose which kills 50 % of exposed organisms
NOEC: No Observed Effect Concentration: concentration at which no effects are observed
OEL: Occupational exposure limit
PNEC: Predicted No-Effect Concentration
STEL: Short-term exposure limit.
TWA: Time-weighted average

Information added, deleted or revised 25.2.2019: The following sections have been revised:
1.1 Product identifier
1.3 Contact information
1.4 Emergency phone number
4.1 Description of first aid measures
9.1 Information on basic physical and chemical properties
14.3 Transport hazard class(es)
15.1 Safety, health and environmental regulations/legislation specific for the substance
16 Other information
13.12.2022: Update according to Annex II of the REACH Regulation ([EU] 2020/878). Added exposure limit values (section 8.1). Changes to sections: 2.2, 2.3, 4.1, 5.1, 6.2, 7.1, 8.1, 8.2, 9.1, 10.1, 10.5, 11.2, 12.6, 13.1, 14.5, 14.6, 16
27.10.2022: Updated the section 9.1 Particle characteristics

Last update date 27.1.2023

Version	2
Comments	<p>Disclaimer</p> <p>This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.</p>