

SAFETY DATA SHEET



Nordkalk QL

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 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	19.10.2012
Revision date	25.02.2019

1.1. Product identifier

Product name	Nordkalk QL
Synonyms	Lime, Burnt lime, Un-slaked lime, Building lime, Calcia, Fat lime, Chemical lime, Fluxing lime, Hard burnt lime, Soft burnt lime, Pebble lime, Calcium oxide, Calcium monoxide, Quick lime, Calcined limestone
IUPAC name REACH	Calcium oxide - CaO
Reg. No.	01-2119475325-36-XXXX
CAS No.	1305-78-8
EC No.	215-138-9

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

Use categories nordic (UCN).	55 Others
Use of the substance / preparation	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

1.3. Details of the supplier of the safety data sheet

Company name	Nordkalk Oy Ab
Office address	Skräbbölevägen 18
Postcode	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	<p>Telephone number: 112 Description: Emergency telephone number (in Finland) Open 24 hours a day.</p> <p>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.</p>
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]	<p>Skin Irrit. 2; H315</p> <p>Eye Dam. 1; H318</p> <p>STOT SE 3; H335</p>
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2.2. Label elements

Hazard pictograms (CLP)



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

2.3. Other hazards

PBT / vPvB	The Annex XIII of the REACH Regulation No. 1907/2006 is not applicable to inorganic substances.
Other hazards	None reported.

SECTION 3: Composition / information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents
Calcium oxide	CAS No.: 1305-78-8 EC No.: 215-138-9 REACH Reg. No.: 01-2119475325-36-XXXX	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	75 - 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	Wash contaminated skin with plenty of soap and 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.
Improper extinguishing media	Do not use water to extinguish fire. Avoid moisture.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The product is non-combustible. Reacts with water by releasing heat (exothermic reaction). This may cause fire.
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. 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 by brushing. 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.
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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.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
Calcium oxide (respirable fraction)	CAS No.: 1305-78-8	TWA (8 h): 1 mg/m ³ OEL short term value Value: 4 mg/m ³	2017 (Directive (EU) 2017/164)

DNEL / PNEC

Substance

Calcium oxide

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: 0,37 mg/l

Route of exposure: Saltwater

Value: 0,24 mg/l

Route of exposure: Sewage treatment plant STP

Value: 2,27 mg/l

Route of exposure: Soil
Value: 817,4 mg/kg

8.2 Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate general and local exhaust ventilation. Use local exhaust ventilation if necessary. Ensure that eye wash facilities and emergency shower are located near work station.
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Eye / face protection

Suitable eye protection	Use tight-fitting safety goggles.
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.
Suitable materials	Nitrile rubber.

Skin protection

Suitable protective clothing	Wear appropriate chemical-resistant, impervious protective clothing. Wear appropriate protective footwear.
Additional skin protection measures	Avoid prolonged or repeated contact with skin. 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.
Respiratory protection, comments	See the relevant exposure scenario in the Appendix.

Appropriate environmental exposure control

Environmental exposure controls	Prevent entry into sewers or the environment.
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. Granular.
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Colour	White. Light brown. Beige.
Odour	Odourless.
Odour limit	Comments: Unknown.
pH	Status: In aqueous solution Value: 12,3 Temperature: 20 °C
Melting point / melting range	Value: > 450 °C Method: EU A.1
Boiling point / boiling range	Comments: Not relevant.
Flash point	Comments: Not relevant.
Evaporation rate	Comments: Not relevant.
Flammability (solid, gas)	Not flammable. (EU A.10)
Explosion limit	Comments: Not applicable.
Vapour pressure	Comments: Not relevant.
Vapour density	Comments: Not relevant.
Density	Value: 3,31 kg/dm ³ Method: EU A.3
Bulk density	Value: 0,75 - 1,30 kg/dm ³
Solubility	Medium: Water Value: 1337,6 mg/l Method: EU A.6
Partition coefficient: n-octanol/ water	Comments: Not relevant.
Spontaneous combustability	Method: EU A.16 Comments: Not self-igniting.
Decomposition temperature	Comments: Not relevant.
Viscosity	Comments: Not relevant.
Explosive properties	Not classified as explosive.
Oxidising properties	Not classified as oxidising.

9.2. Other information

Other physical and chemical properties

Comments	None reported.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reacts with water by releasing heat (exothermic reaction).
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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).
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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.
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10.5. Incompatible materials

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

Hazardous decomposition products	No hazardous decomposition products known.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Calcium oxide
Acute toxicity	<p>Effect tested: LD50 Route of exposure: Oral Method: OECD 425 Value: > 2000 mg/kg bw Animal test species: Rat</p> <p>Effect tested: LD50 Route of exposure: Dermal Method: OECD 402 Value: > 2500 mg/kg bw Animal test species: Rabbit</p>
Other toxicological data	The product is not classified as acutely toxic.

Other information regarding health hazards

Substance	Calcium oxide
Skin corrosion / irritation test result	<p>Toxicity type: Skin irritation Method: In vivo Species: Rabbit Evaluation result: Irritating.</p> <p>Toxicity type: Skin corrosion Method: In vitro OECD 431 Evaluation result: Not corrosive.</p>
Assessment of skin corrosion / irritation, classification	Causes skin irritation.

Substance	Calcium oxide
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 SE, classification	May cause respiratory irritation.
Assessment of specific target organ toxicity RE, 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.
Other information	No other health effects reported.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Calcium oxide
Acute aquatic, fish	Value: 50,6 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: freshwater fish Comments: calcium dihydroxide Value: 457 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: marine water fish Comments: calcium dihydroxide
Substance	Calcium oxide

Acute aquatic, algae	<p>Value: 184,57 mg/l Effect dose concentration: EC50 Test duration: 72 hour(s) Species: freshwater algae Comments: calcium dihydroxide</p> <p>Value: 48 mg/l Effect dose concentration: NOEC Test duration: 72 hour(s) Species: freshwater algae Comments: calcium dihydroxide</p>
Substance	Calcium oxide
Acute aquatic, Daphnia	<p>Toxicity type: Chronic Value: 32 mg/l Effect dose concentration: NOEC Test duration: 14 day(s) Species: marine water invertebrates Comments: calcium dihydroxide</p> <p>Value: 49,1 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Species: freshwater invertebrates Comments: calcium dihydroxide</p> <p>Value: 158 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s) Species: marine water invertebrates Comments: calcium dihydroxide</p>
Toxicity to earthworm	<p>Value: 2000 mg/kg Species: macro organisms Method: soil dry weight Comments: calcium dihydroxide</p>
Toxicity to soil microorganisms	<p>Value: 12000 mg/kg Species: microorganisms Method: soil dry weight Comments: calcium dihydroxide</p>
Plant toxicity	<p>Value: 1080 mg/kg Effect dose concentration: NOEC Test duration: 21 day(s) Comments: calcium dihydroxide</p>
Aquatic, comments	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, comments	Not relevant for inorganic substances.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Not relevant for inorganic substances.
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12.4. Mobility in soil

Mobility	Calcium oxide reacts with water and/or carbon dioxide to form respectively calcium dihydroxide and/or calcium carbonate, which are sparingly soluble, and present a low mobility in most soils.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	Not relevant for inorganic substances.
vPvB evaluation results	Not relevant for inorganic substances.

12.6. Other adverse effects

Environmental details, summation	The product is not classified as hazardous to the environment. Prevent entry into drains, sewers, waterways or soil.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Avoid release to the environment. 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

14.1. UN number

ADR / RID / ADN	1910
IMDG	1910
ICAO / IATA	1910
Comments	Not classified as hazardous for transport [ADR (road), RID (rail), ADN (inland waterways) and IMDG (sea)]. Classified as hazardous for air transport (ICAO/ IATA).

14.2. UN proper shipping name

Proper shipping name english ADR / RID / ADN	Calcium oxide
ADR / RID / ADN	Calcium oxide
IMDG	CALCIUM OXIDE
ICAO / IATA	CALCIUM OXIDE

14.3. Transport hazard class(es)

ADR / RID / ADN	8
Classification code ADR / RID / ADN	C6

IMDG	8
ICAO / IATA	8

14.4. Packing group

ICAO / IATA	III
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14.5. Environmental hazards

Comments	The product is not classified as hazardous to the environment.
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14.6. Special precautions for user

Special safety precautions for user	Prevent entry into sewers, waterways and soil. Avoid generation and spreading of dust.
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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Product name	CALCIUM OXIDE
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Additional information

ADR / RID / ADN hazard label	8
IMDG Hazard label	8
ICAO / IATA Hazard label	8
Additional information	Not applicable.

SECTION 15: Regulatory information

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

Legislation and regulations	No specific regulations.
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15.2. Chemical safety assessment

Chemical safety assessment performed	Yes
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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 SDS by product manufacturer (8/2017) Directive (EU) 2017/164 of 31 January 2017

Abbreviations and acronyms used	<p>DNEL: Derived No-Effect Level</p> <p>EC50: Effective concentration: concentration which kills or immobilises 50 % of exposed organisms</p> <p>LC50: Lethal concentration 50 % (median lethal concentration): concentration which kills 50 % of exposed organisms</p> <p>LD50: Lethal dose 50 % (median lethal dose): dose which kills 50 % of exposed organisms</p> <p>NOEC: No Observed Effect Concentration: concentration at which no effects are observed</p> <p>OEL: Occupational exposure limit</p> <p>PNEC: Predicted No-Effect Concentration</p> <p>STEL: Short-term exposure limit</p> <p>TWA: Time-weighted average</p>
Information added, deleted or revised	<p>25.2.2019: The following sections have been revised:</p> <p>1.2 Relevant identified uses of the substance and uses advised against</p> <p>1.3 Contact information</p> <p>2.1 Classification of the substance</p> <p>2.2 Label elements (2.2.1 and 2.2.2)</p> <p>3.1 Substance</p> <p>8.1 Control parameters</p> <p>16.2 Precautionary statements</p>
Version	1
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>