

SAFETY DATA SHEET

**Nordkalk Enrich C, Nordkalk
Enrich A, Nordkalk Enrich P**

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	26.03.2020
Revision date	07.10.2020

1.1. Product identifier

Product name	Nordkalk Enrich C, Nordkalk Enrich A, Nordkalk Enrich P
Product definition	Precipitated Calcium Carbonate (PCC) with polycarboxylate as dispersing agent. Also covers the nanoform.

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

Use of the substance / preparation	additive in paper, paints and coatings, plastics, rubber products, elastomers, adhesives, mastics, sealants, plasters, ceramics, building materials
Main intended use	PC-TEC-OTH Other products for chemical or technical processes
Industrial use	Yes
Professional use	Yes
Consumer use	No

1.3. Details of the supplier of the safety data sheet

Company name	Nordkalk Oy Ab
Postal 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	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

CLP classification, notes	In accordance with CLP/GHS regulation (EC) No 1272/2008, the product has not been classified as hazardous.
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2.2. Label elements

Other label information (CLP)	No labeling. In accordance with current regulations, this product has not been classified as hazardous.
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2.3. Other hazards

PBT / vPvB	For results of PBT and vPvB assessment, see point 12.5.
Other hazards	Also covers the nanoform.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Calcium carbonate (precipitated)	CAS No.: 471-34-1 EC No.: 207-439-9 REACH Reg. No.: 01-2119486795-18-XXXX	CLP classification, notes: Not classified.	95 - 100 %	
Description of the mixture	Precipitated Calcium Carbonate (PCC) with polycarboxylate as dispersing agent. Also covers the nanoform.			
Remarks, substance	Calcium carbonate Nanoform. Characterisation of nanoforms: Single nanoform. Shape: spheroidal Particle size distribution and range: Typical length:78 nm (range: 10-100 nm) Typical lateral dimension 1: 78 nm (range: 10-100 nm) Typical lateral dimension 2: 78 nm (range: 10-100 nm) Typical aspect ratio: 0.95:1 (range: 0.9-1) Fraction of constituent particles in the size range 1-100 nm (%): ca 75 % (Laser diffraction) ; >90 % (SEM) Crystallinity: Calcite Specific surface area: Typical specific surface area: 22 (range: 17-27 m ² /g) Typical volume specific surface area: 48.4 m ² /cm ³ (range: 35.7-62.1 m ² /cm ³) Skeletal density: 2.2 g/cm ³ Surface functionalisation / treatment: Not known.			
Substance comments	The product does not contain ingredients classified as hazardous to health or the			

environment at concentrations exceeding the concentration limits for listing such ingredients.

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	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	Rinse skin with water/shower. Remove contaminated clothing and shoes. If skin irritation or other symptoms occur, seek medical attention.
Eye contact	Immediately flush eyes with plenty of water for several minutes, holding eyelids open. If eye irritation or other symptoms persist, seek medical attention.
Ingestion	Rinse mouth with water and then drink plenty of water. Do NOT induce vomiting. Get medical attention if symptoms occur.

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

Acute symptoms and effects	None known.
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	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 not flammable.
Hazardous combustion products	Harmful compounds may be evolved during fire. > 600 °C. Carbon dioxide.

5.3. Advice for firefighters

Personal protective equipment	Wear appropriate protective equipment and self-contained breathing apparatus.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Avoid generation and spreading of dust.
Personal protection measures	Wear appropriate personal protective equipment. Avoid breathing dust.

6.2. Environmental precautions

Environmental precautionary measures	No special measures required.
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6.3. Methods and material for containment and cleaning up

Clean up	Avoid generation and spreading of dust. Collect product with a vacuum cleaner or by brushing, and store in a tightly sealed container for recovery or disposal. Wash surfaces with plenty of water.
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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	Ensure adequate ventilation. Avoid breathing dust. Avoid contact with skin, eyes, and clothing.
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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. Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in a well-ventilated place. Keep cool. Store in a closed container.
Conditions to avoid	For incompatible materials see point 10.5.

Conditions for safe storage

Packaging compatibilities	Store in original package or container.
Requirements for storage rooms and vessels	Keep container tightly closed.

7.3. Specific end use(s)

Specific use(s)	None reported.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Calcium carbonate (precipitated)	CAS No.: 471-34-1	Limit value type: OEL Limit value (8 h) : 10 mg/m ³	

Comments: Inorganic dust

DNEL / PNEC

Substance	Calcium carbonate (precipitated)
DNEL	Group: Professional Route of exposure: Long-term inhalation (local) Value: 4,26 mg/m ³
	Group: Professional Route of exposure: Long-term inhalation (systemic) Value: 10 mg/m ³
	Group: Consumer Route of exposure: Long-term inhalation (local) Value: 1,06 mg/m ³
	Group: Consumer Route of exposure: Long-term inhalation (systemic) Value: 10 mg/m ³
PNEC	Route of exposure: Sewage treatment plant STP Value: 100 mg/l Comments: NOEC; AF=10

8.2. Exposure controls**Precautionary measures to prevent exposure**

Technical measures to prevent exposure	Ensure adequate ventilation. Use local exhaust ventilation if necessary.
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Eye / face protection

Suitable eye protection	Use tight-fitting safety goggles. EN 166.
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Hand protection

Suitable gloves type	Use appropriate chemical-resistant, impervious gloves. EN 374.
Suitable materials	PVC. Natural rubber. Neoprene.

Skin protection

Suitable protective clothing	Wear appropriate protective clothing.
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Respiratory protection

Respiratory protection necessary at	In case of inadequate ventilation wear respiratory protection.
Recommended type of equipment	Particle filter mask. FFP1, FFP2, FFP3 (EN 143).

Appropriate environmental exposure control

Environmental exposure controls	Prevent entry into sewers or the environment.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid. Powder.
Colour	White.
Odour	Odourless or mild odor.
Odour limit	Comments: Unknown.
pH	Status: In aqueous solution Value: 7 - 10 Comments: 35 % dry matter content Temperature: 20 °C
Melting point / melting range	Value: > 450 °C Comments: Calcium carbonate
Boiling point / boiling range	Comments: Unknown.
Flash point	Comments: Not relevant.
Evaporation rate	Comments: Unknown.
Flammability (solid, gas)	Not flammable. (UN N.1)
Explosion limit	Comments: Not applicable.
Vapour pressure	Comments: Unknown.
Vapour density	Comments: Unknown.
Density	Value: 2,70 kg/dm ³
Bulk density	Value: 0,75 kg/dm ³
Solubility	Medium: Water Value: 0,0166 g/l Method: OECD 105 Comments: Calcium carbonate Temperature: 20 °C Medium: Water Comments: Nanoform. Not known.
Partition coefficient: n-octanol/ water	Comments: Not applicable.
Spontaneous combustability	Method: UN N.4 Comments: Not self-igniting.
Decomposition temperature	Value: > 450 °C Comments: Calcium carbonate
Viscosity	Comments: Unknown.
Explosive properties	Not classified as explosive.
Oxidising properties	Not classified as oxidising.

9.2. Other information

Physical hazards

Particle size	Comments: Nanoform. See section 3 for particle characteristics.
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Other physical and chemical properties

Comments	None reported.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not reactive under normal use and storage conditions. Contact with acids liberates toxic gas.
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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	Contact with acids liberates toxic gas. CO ₂ . Reacts with acids to form carbon dioxide which displaces the oxygen in the air in closed spaces.
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10.4. Conditions to avoid

Conditions to avoid	Strong heating.
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10.5. Incompatible materials

Materials to avoid	Acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	In a fire or if overheated, harmful compounds may be formed (carbon dioxide, carbon monoxide). Reacts with acids to form carbon dioxide which displaces the oxygen in the air in closed spaces.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Calcium carbonate (precipitated)
Acute toxicity	<p>Effect tested: LD50 Route of exposure: Oral Method: OECD 420 Value: > 2000 mg/kg bw Animal test species: Rat</p> <p>Effect tested: LD50 Route of exposure: Dermal Method: OECD 402 Value: > 2000 mg/kg bw Animal test species: Rat</p>

Other toxicological data	<p>Effect tested: LC50 Route of exposure: Inhalation. Method: OECD 403 Duration: 4 hour(s) Value: > 3 mg/l Animal test species: Rat</p> <p>The product is not classified as acutely toxic. There is no toxicological data available about the product as such.</p>
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Other information regarding health hazards

Substance	Calcium carbonate (precipitated)
Skin corrosion / irritation test result	<p>Method: In vivo OECD 404 Species: Rabbit Evaluation result: Not irritating.</p>
Assessment of skin corrosion / irritation, classification	The product is not classified as irritant or corrosive to skin.
Substance	Calcium carbonate (precipitated)
Eye damage or irritation, test results	<p>Method: In vivo OECD 405 Species: Rabbit Evaluation result: Not irritating.</p>
Assessment of eye damage or irritation, classification	The product is not classified as damaging or irritating to eyes.
Substance	Calcium carbonate (precipitated)
Respiratory or skin sensitisation	<p>Method: OECD 429 Species: Mouse Evaluation result: Not sensitizing</p>
Sensitisation	The product is not classified as a respiratory or skin sensitiser.
Mutagenicity	<p>The product is not classified as a mutagen. Calcium carbonate: In vitro (OECD 471, OECD 473, OECD 476).</p>
Carcinogenicity, other information	The product is not classified as a carcinogen.
Reproductive toxicity	<p>The product is not classified as toxic to reproduction. Calcium carbonate: NOEL: 1000 mg/kg bw/d (OECD 422).</p>
Assessment of specific target organ toxicity - single exposure, classification	The product is not classified as toxic to specific target organs at a single exposure.
Specific target organ toxicity - repeated exposure, test results	<p>Method: OECD 422 Route of exposure: Oral Species: Rat Comments: Calcium carbonate: NOAEL: 1000 mg/kg bw/d</p> <p>Method: OECD 413 Route of exposure: Inhalation. Species: Rat Comments: Calcium carbonate: NOAEC: 0,212 mg/l</p>

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

Other information	No other health effects reported.
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SECTION 12: Ecological information

12.1. Toxicity

Substance	Calcium carbonate (precipitated)
Aquatic toxicity, fish	<p>Effect dose concentration : LC50</p> <p>Test duration: 96 hour(s)</p> <p>Species: Oncorhynchus mykiss</p> <p>Method: OECD 203</p> <p>Evaluation: >100% v/v saturated solution of test material - Exceeds maximum solubility of substance.</p> <p>Comments: Acute toxicity is greater than the highest concentration tested and therefore exceeds the maximum solubility of the product in water.</p>
Substance	Calcium carbonate (precipitated)
Aquatic toxicity, algae	<p>Value: > 14 mg/l</p> <p>Test duration: 72 hour(s)</p> <p>Species: Desmodesmus subspicatus</p> <p>Method: OECD 201</p> <p>Comments: EC50 / EC20 / EC10 / NOEC</p>
Substance	Calcium carbonate (precipitated)
Aquatic toxicity, crustacean	<p>Effect dose concentration : EC50</p> <p>Test duration: 48 hour(s)</p> <p>Species: Daphnia magna</p> <p>Method: OECD 202</p> <p>Evaluation: >100% v/v saturated solution of test material - Exceeds maximum solubility of substance.</p> <p>Comments: Acute toxicity is greater than the highest concentration tested and therefore exceeds the maximum solubility of the product in water.</p>
Toxicity to bacteria	<p>Value: > 1000 mg/l</p> <p>Effect dose concentration : EC50</p> <p>Test duration: 3 hour(s)</p> <p>Species: Activated sludge</p> <p>Method: OECD 209</p> <p>Comments: Calcium carbonate</p> <p>Value: 1000 mg/l</p> <p>Effect dose concentration : NOEC</p> <p>Test duration: 3 hour(s)</p> <p>Species: Activated sludge</p> <p>Method: OECD 209</p> <p>Comments: Calcium carbonate</p>

Toxicity to earthworm	Value: > 1000 mg/kg Effect dose concentration : EC50 Test duration: 14 day(s) Species: Eisenia fetida Method: OECD 207 Comments: Calcium carbonate
	Value: 1000 mg/kg Test duration: 14 day(s) Species: Eisenia fetida Method: OECD 207 Comments: Calcium carbonate
Toxicity to soil microorganisms	Value: 1000 mg/kg Effect dose concentration : EC50 Test duration: 28 day(s) Species: microorganisms Method: OECD 216 Comments: Calcium carbonate
	Value: 1000 mg/kg Effect dose concentration : NOEC Test duration: 28 day(s) Species: microorganisms Method: OECD 216 Comments: Calcium carbonate
Plant toxicity	Value: > 1000 mg/kg Effect dose concentration : EC50 Test duration: 21 day(s) Species: Glycine max Lycopersicon esculentum Avena sativa Method: OECD 208 Comments: Calcium carbonate
	Value: 1000 mg/kg Effect dose concentration : NOEC Test duration: 21 day(s) Species: Glycine max Lycopersicon esculentum Avena sativa Method: OECD 208 Comments: Calcium carbonate
Ecotoxicity	The product is not classified as hazardous to the environment.

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	The product is not bioaccumulative.
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12.4. Mobility in soil

Mobility	No data available.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.
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12.6. Other adverse effects

Additional ecological information	The product is not classified as hazardous to the environment. Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Dispose of in compliance with local and national regulations.
Appropriate methods of disposal for the contaminated packaging	After usage, empty the packing completely. Uncleaned empty containers are to be handled in the same way as the ones containing products. Dispose of empty containers to an approved waste disposal facility for recycling or disposal.

SECTION 14: Transport information

14.1. UN number

Comments	The product is not classified for transportation.
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14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

IMDG Marine pollutant	No.
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14.6. Special precautions for user

Special safety precautions for user	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

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	No
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SECTION 16: Other information

Training advice	Read safety data sheet.
Key literature references and sources for data	Previous version of the SDS Product specifications by manufacturer SDSs for product components Decree on Concentrations known to be Hazardous 654/2020 (HTP-arvot 2020), Finland
Abbreviations and acronyms used	AF: Assessment factor 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	7.10.2020: Safety data sheet revised. Also covers the nanoform.
Version	2
Comments	Disclaimer 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.