

SAFETY DATA SHEET

Nordkalk Nordkalk CL 90-Q

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	14.06.2016
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Revision date	13.12.2022
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1.1. Product identifier

Product name	Nordkalk CL 90-Q
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Synonyms	Lime, Burnt lime, Un-slaked lime, Buildinglime, Calcia, Fat lime, Chemical lime, Fluxing lime, Hard burnt lime, Soft burnt lime, Pebble lime, Calcium oxide, Calcium monoxide, Quick lime, Calcined limestone
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IUPAC name	Calcium oxide - CaO
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REACH Reg. No.	01-2119475325-36-XXXX
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CAS No.	1305-78-8
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EC No.	215-138-9
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Use categories nordic (UCN).	55 Others
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Use of the substance / preparation	Building material industry, Chemical industry, Agriculture, Biocidal use, Environmental protection (e.g. flue gas treatment, wastewater treatment, sludge treatment), Drinking water treatment, Feed, food and pharmaceutical industry, Civil engineering, Paper and paint industry
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1.3. Details of the supplier of the safety data sheet

Company name	Nordkalk AS
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Office address	Faehlmanni 11a
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Postcode	46301
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City	Rakke, Lääne Virumaa country
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Country	Estonia
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Telephone number	+372 326 0720, +372 523 9499
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Email	sds@nordkalk.com
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Website	www.nordkalk.com
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1.4. Emergency telephone number

Emergency telephone	<p>Telephone number: 112 Description: Emergency telephone number Open 24 hours a day.</p> <p>Telephone number: +372 7943 794 Description: Poison Information Centre (in Estonia), 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
Signalword	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 /fume/gas/mist/vapours/spray.</p> <p>P280 Wear protective gloves / protective clothing / eye protection / face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of soap and water .</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep 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 in accordance with local regulation.</p>

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
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	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	Drychemical, carbon dioxide or foam. Use an extinguishing agent suitable for the surrounding fire.
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. Cover area if possible to avoid unnecessary dust hazard. Avoid release into drains, sewers or waterways. In case of
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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. 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	Value	TWA Year
Calcium oxide	CASNo.: 1305-78-8	TWA (8h): 1 mg/m ³ OEL short term value Value: 4 mg/m ³	

DNEL / PNEC

Substance	Calcium oxide
DNEL	<p>Group: Professional Route of exposure: Acute inhalation (local) Value: 4 mg/m³ Comments: respirable dust</p> <p>Group: Professional Route of exposure: Long-term inhalation (local) Value: 1 mg/m³ Comments: respirable dust</p> <p>Group: Consumer Route of exposure: Acute inhalation (local) Value: 4 mg/m³ Comments: respirable dust</p> <p>Group: Consumer Route of exposure: Long-term inhalation (local) Value: 1 mg/m³ Comments: respirable dust</p>
PNEC	<p>Route of exposure: Freshwater Value: 0,37 mg/l</p> <p>Route of exposure: Saltwater Value: 0,24 mg/l</p> <p>Route of exposure: Sewage treatment plant STP Value: 2,27 mg/l</p>

Route of exposure: Soil
Value: 817,4 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.
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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
Environmental exposure controls, comments	be filtered before discharge to atmosphere. 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.
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 applicable.
Flash point	Comments: Not applicable.
Particle characteristics	Comments: Not determined.
Flammability	Not flammable. (EU A.10)
Explosion limit	Comments: Not applicable
Vapour pressure	Comments: Not applicable.
Vapour density	Comments: Not applicable.
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 applicable.
Auto-ignition temperature	Method: EU A.16 Comments: Not self-igniting.
Decomposition temperature	Value: > 450 °C
Viscosity	Comments: Not applicable.

9.2. Other information

Other physical and chemical properties

Comments None reported.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Reacts with water by releasing heat (exothermic reaction). Absorbs moisture and carbon dioxide from air to form calcium carbonate, which is a common material in nature.

10.2. Chemical stability

Stability Chemically stable under normal storage conditions.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Substance	Calcium oxide
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 oxide
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 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 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. 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 Information on other hazards

Endocrine disruption Other information	No endocrine disrupting properties known. No other health effects reported.
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SECTION 12: Ecological information

12.1. Toxicity

Substance	Calcium oxide
Aquatic toxicity, 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
Aquatic toxicity, algae	Value: 184,57 mg/l Effect dose concentration : EC50 Test duration: 72 hour(s) Species: freshwater algae Comments: calcium dihydroxide
	Value: 48 mg/l Effect dose concentration : NOEC Test duration: 72 hour(s) Species: freshwater algae Comments: calcium dihydroxide

Substance	Calcium oxide
Aquatic toxicity, crustacean	Toxicity type: Chronic Value: 32 mg/l . Effect dose concentration: NOEC Test duration: 14 day(s) Species: marine water invertebrates Comments: calcium dihydroxide Value: 49,1 mg/l Effect dose concentration : EC50 Test duration: 48 hour(s) Species: freshwater invertebrates Comments: calcium dihydroxide Value: 158 mg/l Effect dose concentration : LC50 Test duration: 96 hour(s) Species: marine water invertebrates Comments: calcium dihydroxide
Toxicity to earthworm	Value: 2000 mg/kg Species: macro organisms Method: soil dry weight Comments: calcium dihydroxide
Toxicity to soil microorganisms	Value: 12000 mg/kg . Species: microorganisms Method: soil dry weight Comments: calcium dihydroxide
Plant toxicity	Value: 1080 mg/kg Effect dose concentration : NOEC Test duration: 21 day(s) Comments: calcium dihydroxide
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	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

Results of PBT and vPvB assessment	Not relevant for inorganic substances
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12.6. Endocrine disrupting properties

Endocrine disrupting properties	No endocrine disrupting properties known.
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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.
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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

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

MDG 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 for powders and covered trucks for pebbles.
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14.7. Maritime transport in bulk according to IMO instruments

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

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 25.2.2019 SDS by product manufacturer (8/2017) Regulation No. 105 of the Government of the Republic of Estonia „Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid“
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 1.2 Relevant identified uses of the substance and uses advised against 1.3 Details of the supplier of the safety data sheet 1.4 Emergency telephone number 2.1 Classification of the substance 2.2 Label elements (2.2.1 and 2.2.2)

Version	3.1 Substance 8.1 Control parameters 12.1 Toxicity 16.2 Precautionary statements
Comments	13.12.2022: Update according to Annex II of the REACH Regulation ([EU] 2020/ 878). Changes to sections: 2.2, 2.3, 4.1, 3.1, 5.1, 6.2, 7.1, 8.2, 9.1, 10.1, 11.2, 12.1, 12.2, 12.3, 12.5, 12.6, 12.7, 13.1, 14.5, 14.6, 14.7, 15.1, 16
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	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.