

## 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

<b>Email</b>	sds@nordkalk.com
<b>Website</b>	www.nordkalk.com

## 1.4. Emergency telephone number

<b>Emergency telephone</b>	<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>
<b>Identification, comments</b>	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

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

### 2.2. Label elements

#### Hazard pictograms (CLP)



<b>Signal word</b>	Danger
<b>Hazard statements</b>	<p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H335 May cause respiratory irritation.</p>
<b>Precautionary statements</b>	<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 soap and 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 or doctor / physician.</p> <p>P501 Dispose of contents / container in accordance with local regulation.</p>

### 2.3. Other hazards

<b>PBT / vPvB</b>	The substance does not meet the criteria for PBT or vPvB substance according to Regulation (EC) No 1907/2006, Annex XIII.
<b>Other hazards</b>	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

<b>General</b>	If the situation is unclear or symptoms persist, seek medical attention.
<b>Inhalation</b>	Move exposed person immediately to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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

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

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

<b>Other information</b>	Treat symptomatically.
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## SECTION 5: Firefighting measures

## 5.1. Extinguishing media

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

## 5.2. Special hazards arising from the substance or mixture

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

## 5.3. Advice for firefighters

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

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>General measures</b>	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.
<b>Personal protection measures</b>	Wear appropriate personal protective equipment. Avoid contact with skin or eyes. Avoid breathing dust.

### 6.2. Environmental precautions

<b>Environmental precautionary measures</b>	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

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

### 6.4. Reference to other sections

<b>Other instructions</b>	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

<b>Handling</b>	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

<b>Preventive measures to prevent aerosol and dust generation</b>	Prevent formation of dust.
<b>Advice on general occupational hygiene</b>	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

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

## Conditions for safe storage

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

## 7.3. Specific end use(s)

<b>Specific use(s)</b>	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 <sup>3</sup> Country of origin: United Kingdom Limit value (8 h) : 1 mg/m <sup>3</sup> <b>Limit value (short term)</b> Value: 4 mg/m <sup>3</sup> Comments: Respirable fraction Country of origin: European Union Limit value (8 h) : 5 mg/m <sup>3</sup>	

Source: Directive 91/322/  
EEC  
Comments: IOELV  
Country of origin: European  
Union  
Limit value (8 h) : 1 mg/m<sup>3</sup>  
**Limit value (short term)**  
Value: 4 mg/m<sup>3</sup>  
Source: Directive (EU)  
2017/164  
Comments: IOELV  
Particle fraction: Respirable  
Country of origin: Finland  
Limit value (8 h) : 1 mg/m<sup>3</sup>  
**Limit value (short term)**  
Value: 4 mg/m<sup>3</sup>

## DNEL / PNEC

### Substance

Calcium dihydroxide

### DNEL

**Group:** Professional

**Route of exposure:** Acute inhalation (local)

**Value:** 4 mg/m<sup>3</sup>

**Comments:** respirable dust

**Group:** Professional

**Route of exposure:** Long-term inhalation (local)

**Value:** 1 mg/m<sup>3</sup>

**Comments:** respirable dust

**Group:** Consumer

**Route of exposure:** Acute inhalation (local)

**Value:** 4 mg/m<sup>3</sup>

**Comments:** respirable dust

**Group:** Consumer

**Route of exposure:** Long-term inhalation (local)

**Value:** 1 mg/m<sup>3</sup>

**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.

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

## 9.2. Other information

### 9.2.2. Other safety characteristics

<b>Comments</b>	None reported.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	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

<b>Stability</b>	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

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

## Symptoms of exposure

<b>In case of ingestion</b>	Irritates the gastrointestinal tract.
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## 11.2 Other information

<b>Endocrine disruption</b>	No endocrine disrupting properties known.
<b>Other information</b>	No other health effects reported.

## SECTION 12: Ecological information

### 12.1. Toxicity

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

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

## 12.2. Persistence and degradability

<b>Persistence and degradability description/evaluation</b>	Not relevant for inorganic substances.
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## 12.3. Bioaccumulative potential

<b>Bioaccumulation, evaluation</b>	Not relevant for inorganic substances.
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## 12.4. Mobility in soil

<b>Mobility</b>	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

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<b>Version</b>	2
<b>Comments</b>	<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>