

Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878

METRIC OSMOTIC GREY

Date of first edition: 2/26/2024

Safety Data Sheet dated 26/02/2024

version 1

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

1.1. Product identifier

Mixture identification:

Trade name: METRIC OSMOTIC GREY

Trade code: S30000083 30

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

Recommended use: Waterproofing product; Mortars

Uses advised against: All uses other than recommended ones

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL IBÉRICA S.A.

Carretera de Alcora, Km. 10,450 – 12006 Castellón de la Plana – España

Tel. +34 964 251 500 – Fax +34 964 241 100

safety@kerakoll.com

1.4. Emergency telephone number

European emergency phone number 112

Ireland Poison information centre: 01 809 2166 (Daily 8am-10pm) In case of emergency call 999 or 112

Malta In case of emergency call: +356 2395 2000 (24h)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2 Causes skin irritation.

Eye Dam. 1 Causes serious eye damage.

Skin Sens. 1B May cause an allergic skin reaction.

STOT SE 3 May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word



Danger

Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary statements

P260 Do not breathe dust.

P280 Wear protective gloves and eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container in accordance with applicable regulations.

Contains

Portland Cement (Cr VI < 0,0002%)

Calcium dihydroxide

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

When mixtures containing cement react with water, for instance when making concrete or mortar, or when the cement becomes wet, a strong alkaline solution is produced (high pH caused by the formation of calcium, sodium and potassium hydroxides).
Cement and mixtures containing cement may irritate the eyes, the mucous system, the throat and the respiratory system and cause coughing. Frequent inhalation of cement dust or mixtures containing cement over a long period of time increases the risk of developing lung diseases.
In case of prolonged contact with the skin, both cement and mixtures containing cement, including pastes, may cause skin sensitisation due to the presence of trace amounts of chromium VI salts. Where necessary, such an effect can be minimized by incorporating a special reducing agent to maintain the water-soluble chromium VI content to concentration rates below 0.0002% (2 ppm) on the total dry weight of cement.

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: METRIC OSMOTIC GREY

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥20-<50 %	Portland Cement (Cr VI < 0,0002%)	CAS:65997-15-1 EC:266-043-4	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1B, H317; STOT SE 3, H335	
≥1-<3 %	Calcium dihydroxide	CAS:1305-62-0 EC:215-137-3	Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335	01-2119475151-45
<0.05 %		CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
<0.0015 %	formaldehyde	CAS:50-00-0 EC:200-001-8 Index:605-001-00-5	Carc. 1B, H350 Muta. 2, H341 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317	01-2119488953-20
Specific Concentration Limits: 25% ≤ C < 100%: Skin Corr. 1B H314 5% ≤ C < 25%: Skin Irrit. 2 H315 5% ≤ C < 25%: Eye Irrit. 2 H319 5% ≤ C < 100%: STOT SE 3 H335 0.2% ≤ C < 100%: Skin Sens. 1 H317				

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Remove contaminated clothing immediately and dispose off safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

7.2. Conditions for safe storage, including any incompatibilities

The product must be stored in waterproof, dry, clean conditions and protected from contamination. Do not use aluminum containers due to incompatibility of the materials.

The product contains cement with an addition of a Chromium reducing agent (VI) and its effectiveness decreases with time. Consequently, packagings of the material indicate information about the production date, storing conditions and the appropriate storage period for the

maintaining of the activity of the reducing agent and for maintaining the soluble Chromium (VI) amount under 2ppm over the total dry weight referred to cement (EN 196-10).

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
Quartz CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m ³ (8h) R, A2 - Pulm fibrosis, lung cancer
	NATIONAL	AUSTRALIA	Long Term: 0.05 mg/m ³ Respirable fraction
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, III C, A -Respirable fraction Source: BGBl. II Nr. 156/2021
	NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ C - Respirable fraction Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 0.1 mg/m ³ Source: NN 1/2021
	NATIONAL	DENMARK	Long Term: 0.3 mg/m ³ Source: BEK nr 2203 af 29/11/2021
	NATIONAL	DENMARK	Long Term: 0.1 mg/m ³ EK Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 0.1 mg/m ³ 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 0.05 mg/m ³ alveolijae, liite 3 Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 0.1 mg/m ³ La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	HUNGARY	Long Term: 0.1 mg/m ³ Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	INDIA	Long Term: 10 mg/m ³ (8h)
	NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ Respirable fraction Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 0.1 mg/m ³ Polvere di silice cristallina respirabile (frazione inalabile). Rif:D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LITHUANIA	Long Term: 0.1 mg/m ³ Žiureti 1 priedo 3 punkta. Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
	NATIONAL	NETHERLAND S	Long Term: 0.075 mg/m ³ (2) Source: Arbeidsomstandighedenregeling - Lijst B1
	NATIONAL	NORWAY	Long Term: 0.3 mg/m ³ K 7 Source: FOR-2021-06-28-2248

Portland Cement (Cr VI < 0,0002%) CAS: 65997-15-1	NATIONAL	NORWAY	Long Term: 0.05 mg/m3 K G 7 21 Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 0.1 mg/m3 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SPAIN	Long Term: 0.05 mg/m3 Respirable fraction Source: LEP 2022
	NATIONAL	SWEDEN	Long Term: 0.1 mg/m3 C, M, 3 Source: AFS 2021:3
	ACGIH		Long Term: 1 mg/m3 (8h) E,R, A4 - Pulm func, resp symptoms, asthma
	NATIONAL	AUSTRALIA	Long Term: 10 mg/m3 (8h) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
	NATIONAL	AUSTRIA	Long Term: 5 mg/m3 MAK, E Source: BGBl. II Nr. 156/2021
	NATIONAL	BELGIUM	Long Term: 1 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 10 mg/m3 U Source: NN 1/2021
	NATIONAL	CROATIA	Long Term: 4 mg/m3 R Source: NN 1/2021
	NATIONAL	FINLAND	Long Term: 5 mg/m3 hengittyvä pöly Source: HTP-ARVOT 2020
	NATIONAL	FINLAND	Long Term: 1 mg/m3 alveolijae Source: HTP-ARVOT 2020
	NATIONAL	HUNGARY	Long Term: 10 mg/m3 N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	IRELAND	Long Term: 1 mg/m3 R Source: 2021 Code of Practice
	NATIONAL	LATVIA	Long Term: 6 mg/m3 Source: KN325P1
	NATIONAL	POLAND	Long Term: 6 mg/m3 4) Source: Dz.U. 2018 poz. 1286
	NATIONAL	POLAND	Long Term: 2 mg/m3 6), 7) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SPAIN	Long Term: 4 mg/m3 e, d Source: LEP 2022
	ACGIH		Long Term: 5 mg/m3 (8h) Eye, URT and skin irr
Calcium dihydroxide CAS: 1305-62-0	EU		Long Term: 1 mg/m3 (8h); Short Term: 4 mg/m3 Respirable fraction
	NATIONAL	AUSTRALIA	Long Term: 5 mg/m3 (8h)
	NATIONAL	AUSTRIA	Long Term: 1 mg/m3; Short Term: Ceiling - 4 mg/m3 5(Mow), 8x, MAK, E Source: GKV, BGBl. II Nr. 156/2021

NATIONAL	BELGIUM	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	BULGARIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 5 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003
NATIONAL	CROATIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ R (14) Source: 2017/164/EU
NATIONAL	CYPRUS	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 9 (2019) Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	CZECHIA	Long Term: 1 mg/m ³ ; Short Term: Ceiling - 4 mg/m ³ I, R Source: Narízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 5 mg/m ³ E Source: BEK nr 2203 af 29/11/2021
NATIONAL	DENMARK	Long Term: 1 mg/m ³ E Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 1 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	GERMANY	Long Term: 1 mg/m ³ Y, EU, DFG, E, 2 (I) Source: TRGS 900
NATIONAL	GREECE	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 9) Source: Π.Δ. 82/2018 (ΦΕΚ 152/Α` 21.8.2018)
NATIONAL	HUNGARY	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ resp, EU4, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	IRELAND	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ IOELV, R Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Frazione respirabile Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 5 mg/m ³ O Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	LUXEMBOUR G	Long Term: 5 mg/m ³ 11, 14 Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	LUXEMBOUR G	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 9, 14 Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 10 Source: S.L.424.24
NATIONAL	NETHERLAND S	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ (2)

Fumes, silica CAS: 69012-64-2	NATIONAL	NORWAY	Long Term: 1 mg/m ³ E Source: FOR-2021-06-28-2248
	NATIONAL	NORWAY	Short Term: 4 mg/m ³ S Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 2 mg/m ³ ; Short Term: 6 mg/m ³ 4) Source: Dz.U. 2018 poz. 1286
	NATIONAL	POLAND	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL	PORTUGAL	Long Term: 1 mg/m ³ (9) Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Frac?iune respirabila, Dir. 2017/164 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVAKIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SLOVENIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Y, EU4, (A) Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ VLI, d Source: LEP 2022
	NATIONAL	SWEDEN	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 3 Source: AFS 2021:3
(+) -tartaric acid CAS: 87-69-4	NATIONAL	AUSTRALIA	Long Term: 2 mg/m ³ (8h)
	NATIONAL	BELGIUM	Long Term: 2 mg/m ³ (8h)
	NATIONAL	PORTUGAL	Long Term: 2 mg/m ³ (8h)
	NATIONAL	SPAIN	Long Term: 2 mg/m ³ (8h)
	NATIONAL	GERMANY	Long Term: 0.3 mg/m ³ DFG, Y, 1, A Source: TRGS 900
Limestone CAS: 1317-65-3	NATIONAL	SLOVENIA	Long Term: 0.3 mg/m ³ Y, (A) Source: UL št. 72, 11. 5. 2021
	NATIONAL	AUSTRIA	Long Term: 0.3 mg/m ³ MAK, A Source: BGBl. II Nr. 156/2021
	NATIONAL	DENMARK	Long Term: 2 mg/m ³ Source: BEK nr 2203 af 29/11/2021
	NATIONAL	GERMANY	Long Term: 2 mg/m ³ DFG, Y, E, 2 (I) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 2 mg/m ³ ; Short Term: 4 mg/m ³ Y, (I) Source: UL št. 72, 11. 5. 2021
	NATIONAL	BELGIUM	Long Term: 10 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	BULGARIA	Long Term: 10 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003
	NATIONAL	ESTONIA	Long Term: 10 mg/m ³

		Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
Kaolin CAS: 1332-58-7	NATIONAL ESTONIA	Long Term: 5 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL GREECE	Long Term: 10 mg/m3 e?sp? Source: ΦEK 94/A` 13.5.1999;
	NATIONAL GREECE	Long Term: 5 mg/m3 a?ap? Source: ΦEK 94/A` 13.5.1999;
	NATIONAL GREECE	Long Term: 10 mg/m3 e?sp?. Source: ΦEK 94/A` 13.5.1999;
	NATIONAL GREECE	Long Term: 5 mg/m3 a?ap?. Source: ΦEK 94/A` 13.5.1999;
	NATIONAL HUNGARY	Long Term: 10 mg/m3 N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL IRELAND	Long Term: 10 mg/m3 Source: 2021 Code of Practice
	NATIONAL IRELAND	Long Term: 4 mg/m3 Source: 2021 Code of Practice
	ACGIH	Long Term: 2 mg/m3 (8h) E,R, A4 - Pneumoconiosis
	NATIONAL AUSTRALIA	Long Term: 10 mg/m3 (8h) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
	NATIONAL BELGIUM	Long Term: 2 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL CROATIA	Long Term: 2 mg/m3 R Source: NN 1/2021
	NATIONAL DENMARK	Long Term: 2 mg/m3 Source: BEK nr 2203 af 29/11/2021
	NATIONAL FINLAND	Long Term: 2 mg/m3 alveolijae Source: HTP-ARVOT 2020
	NATIONAL IRELAND	Long Term: 2 mg/m3 Source: 2021 Code of Practice
	NATIONAL POLAND	Long Term: 10 mg/m3 4), 7) Source: Dz.U. 2018 poz. 1286
	EU	Long Term: 0.1 mg/m3 Polvere di silice cristallina respirabile, frazione inalabile. (R), A2 - Pulm fibrosis, lung cancer. Directive 2017/2398
	ACGIH	Long Term: 0.025 mg/m3 (8h) R, A2 - Pulm fibrosis, lung cancer
	NATIONAL AUSTRALIA	Long Term: 0.05 mg/m3 (8h) Respirable fraction
	NATIONAL AUSTRIA	Long Term: 0.05 mg/m3 MAK, III C, A Source: BGBl. II Nr. 156/2021
CAS: 14808-60-7	NATIONAL BELGIUM	Long Term: 0.1 mg/m3 C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL CROATIA	Long Term: 0.1 mg/m3 Source: NN 1/2021
	NATIONAL DENMARK	Long Term: 0.3 mg/m3 Source: BEK nr 2203 af 29/11/2021

Silicon dioxide CAS: 112926-00-8	NATIONAL	DENMARK	Long Term: 0.1 mg/m3 EK Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 0.1 mg/m3 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 0.05 mg/m3 alveolijae, liite 3 Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 0.1 mg/m3 La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	HUNGARY	Long Term: 0.1 mg/m3 (8h) Respirable aerosol Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	INDIA	Long Term: 10 mg/m3
	NATIONAL	IRELAND	Long Term: 0.1 mg/m3 (8h) Respirable fraction Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 0.1 mg/m3 (8h) Polvere di silice cristallina respirabile (frazione inalabile). D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LITHUANIA	Long Term: 0.1 mg/m3 Žiureti 1 priedo 3 punkta. Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
	NATIONAL	NETHERLAND S	Long Term: 0.075 mg/m3 (2) Source: Arbeidsomstandighedenregeling - Lijst B1
	NATIONAL	NORWAY	Long Term: 0.3 mg/m3 K 7 Source: FOR-2021-06-28-2248
	NATIONAL	NORWAY	Long Term: 0.05 mg/m3 K G 7 21 Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 0.1 mg/m3 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SPAIN	Long Term: 0.05 mg/m3 (8h) Respirable fraction Source: LEP 2022
	NATIONAL	SWEDEN	Long Term: 0.1 mg/m3 C, M, 3 Source: AFS 2021:3
	NATIONAL	BELGIUM	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	FINLAND	Long Term: 5 mg/m3 Source: HTP-ARVOT 2020
	NATIONAL	POLAND	Long Term: 10 mg/m3 4) Source: Dz.U. 2018 poz. 1286
	NATIONAL	POLAND	Long Term: 2 mg/m3 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SWITZERLAND	Long Term: 25 mg/m3 (8h); Short Term: 25 mg/m3 (15min)
CAS: 25013-16-5	NATIONAL	GERMANY	Long Term: 20 mg/m3 DFG, Y, 11, E, 1 (II) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 20 mg/m3; Short Term: 20 mg/m3

formaldehyde
CAS: 50-00-0

		Y, (I) Source: UL št. 72, 11. 5. 2021
NATIONAL	AUSTRALIA	Long Term: 1.2 mg/m ³ - 1 ppm (8h); Short Term: 2.5 mg/m ³ - 2 ppm
ACGIH		Long Term: 0.1 ppm (8h); Short Term: 0.3 ppm DSEN, RSEN, A1 - URT and eye irr, URT cancer
EU		Long Term: 0.37 mg/m ³ - 0.3 ppm (8h); Short Term: 0.74 mg/m ³ - 0.6 ppm Dermal sensitisation
NATIONAL	AUSTRIA	Long Term: 0.37 mg/m ³ - 0.3 ppm; Short Term: Ceiling - 0.74 mg/m ³ - 0.6 ppm Mow, MAK, III A2, Sh Source: BGBl. II Nr. 156/2021
NATIONAL	CZECHIA	Long Term: 0.37 mg/m ³ ; Short Term: Ceiling - 0.74 mg/m ³ I, K, S Source: Narízení vlády c. 361-2007 Sb
NATIONAL	CZECHIA	Long Term: 0.5 mg/m ³ ; Short Term: Ceiling - 0.74 mg/m ³ I, K, S Source: Narízení vlády c. 361-2007 Sb
NATIONAL	DENMARK	Short Term: Ceiling - 0.37 mg/m ³ - 0.28 ppm LEK. Hudsensibiliserende Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 0.37 mg/m ³ - 0.3 ppm; Short Term: 0.74 mg/m ³ - 0.6 ppm C, S, Tervishoiu-, matuse- ja palsameerimise sektoris Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	ESTONIA	Long Term: 0.62 mg/m ³ - 0.5 ppm C, S, Tervishoiu-, matuse- ja palsameerimise sektoris Kehtiv kuni 10.07.2024 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 0.37 mg/m ³ - 0.3 ppm; Short Term: 0.74 mg/m ³ - 0.6 ppm liite 3 Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 0.37 mg/m ³ - 0.3 ppm; Short Term: 0.74 mg/m ³ - 0.6 ppm Cancérogène de catégorie 1B, Mutagène de catégorie 2. La substance peut provoquer une sensibilisation cutanée. Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	HUNGARY	Long Term: 0.37 mg/m ³ ; Short Term: 0.74 mg/m ³ k(1B), b, m, sz, EU8, T Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 0.6 mg/m ³ - 0.5 ppm; Short Term: Ceiling - 1.2 mg/m ³ - 1 ppm U J K Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 0.15 mg/m ³ ; Short Term: 0.5 mg/m ³ TGG 8 uur mg/m ³ (4) Source: Arbeidsomstandighedenregeling - Lijst B1
NATIONAL	NORWAY	Long Term: 0.37 mg/m ³ - 0.3 ppm A K G Source: FOR-2021-06-28-2248
NATIONAL	NORWAY	Short Term: 0.74 mg/m ³ - 0.6 ppm S Source: FOR-2021-06-28-2248
NATIONAL	NORWAY	Short Term: Ceiling - 1.2 mg/m ³ - 1 ppm T Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.37 mg/m ³ ; Short Term: 0.74 mg/m ³ skóra 22) Source: Dz.U. 2018 poz. 1286
NATIONAL	SWEDEN	Long Term: 0.37 mg/m ³ - 0.3 ppm; Short Term: 0.74 mg/m ³ - 0.6 ppm C, H, S Source: AFS 2021:3
NATIONAL	BELGIUM	Short Term: 0.38 mg/m ³ - 0.3 ppm C, M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1

NATIONAL	BULGARIA	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm ????? ??????????-??? (13) (? ???? ? 11.07.2021 ?, ? ?? ????????? ?? ??????????????, ?????????? ????? ? ?????????? - ?? 11.07.2027 ?.) Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003
NATIONAL	CROATIA	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm Alergen koža (8), Karc 1 B. Granicna vrijednost 0, 62 mg/m3 ili 0, 5 ppm za zdravstveni i pogrebni sektor te sektor balzamiranje do 11. srpnja 2024. Source: 2019/983
NATIONAL	GERMANY	Long Term: 0.37 mg/m3 - 0.3 ppm AGS, Sh, Y, X, 2(I) Source: TRGS 900
NATIONAL	GREECE	Long Term: 0.37 mg/m3; Short Term: 0.74 mg/m3 e?a?s?t?p???s? t??] d??mat?? (13) ???a?? t?μ? 0, 62 mg/m3 ? 0, 5 ppm ??a t??? t? μe?? ??e????μ???? pe???a????, ??de??? ?a? ta???e?s?? ??? ??? 1 1 ??????? 2024. Source: Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020)
NATIONAL	IRELAND	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.738 mg/m3 - 0.6 ppm BOELV, Carc 1B, Sens, Limit value 0.5ppm/0.62mg/m3 for the healthcare, funeral and embalming sectors until 11 July 2024, see footnote 21 Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.6 mg/m3 - 0.74 ppm Sensibilizzazione cutanea. Source: D.lgs. 81/2008, Allegato XLIII
NATIONAL	LATVIA	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm Viela var izraisit adas sensibilizaciju Source: KN325P1
NATIONAL	PORTUGAL	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm sensibilização cutânea (14). Valor -limite de 0, 62 mg/m3 ou de 0, 5 ppm (3) para os setores dos cuidados de saúde, funerário e de embalsamamento até 11 de julho de 2024. Source: Decreto-Lei n.º 102-A/2020
NATIONAL	ROMANIA	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm P, C2, (15), Dir. 2019/983, Valoare-limita de 0, 62 mg/mc sau 0, 5 ppm pentru sectorul asisten?ei medicale, sectorul serviciilor funerare ?i de ?mbalsamare pâna la 11 iulie 2024 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVENIA	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm EU, K, SK, R1B, M2, MV 0, 62 mg/mi ali 0, 5 ppm za dejavnost zdravstvene oskrbe, pogrebno dejavnosti in dejavnost balzamiranja se uporablja do 11.7.2024 Source: UL št. 89, 1. 7. 2022
NATIONAL	SPAIN	Long Term: 0.37 mg/m3 - 0.3 ppm; Short Term: 0.74 mg/m3 - 0.6 ppm C1B, Sen, s Source: LEP 2022

Predicted No Effect Concentration (PNEC) values

Calcium dihydroxide
CAS: 1305-62-0

Exposure Route: Fresh Water; PNEC Limit: 490 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 490 µg/l

Exposure Route: Marine water; PNEC Limit: 320 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 3 mg/l

Exposure Route: Soil; PNEC Limit: 1080 mg/kg

formaldehyde
CAS: 50-00-0

Exposure Route: Fresh Water; PNEC Limit: 440 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 4.44 mg/l

Exposure Route: Marine water; PNEC Limit: 440 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 190 µg/l

Exposure Route: Freshwater sediments; PNEC Limit: 2.3 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 2.3 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 200 µg/kg

Derived No Effect Level (DNEL) values

Calcium dihydroxide CAS: 1305-62-0	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 1 mg/m ³ ; Consumer: 1 mg/m ³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 4 mg/m ³ ; Consumer: 4 mg/m ³
formaldehyde CAS: 50-00-0	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 9 mg/m ³ ; Consumer: 3.2 mg/m ³
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 375 µg/m ³ ; Consumer: 100 µg/m ³
	Exposure Frequency: Short Term, local effects Worker Professional: 750 µg/m ³
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 240 mg/kg; Consumer: 102 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 4.1 mg/kg

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.(EN166)

Protection for skin:

Chemical protection clothing. Safety shoes.

Protection for hands:

Protection for hands:

Suitable materials for safety gloves; EN 374:

Nitrile rubber - NBR: thickness ≥0,35mm; breakthrough time ≥480min.

Respiratory protection:

Particle filter P2 .

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Solid

Colour: Grey

Odour: Odourless

Odour threshold: N.A.

pH: =12.50

Kinematic viscosity: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: Not Applicable

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.04 g/cm³

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Volatile Organic compounds - VOCs = 0.00 % ; 0.00 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

The product is stable as long as it is properly stored (see Section 7).

Wet product is alkaline and incompatible with acids, with ammonium salts, with aluminium or other base metals. When in contact with hydrofluoric acid, mixtures containing cement dissolve to produce corrosive silicon tetrafluoride gas. Mixtures containing cement react with water to form silicates and calcium hydroxide. Silicates in cement react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride.

Intact packaging and compliance with the appropriate storage conditions as indicated in Subsection 7.2 (adequate tightly closed and sealed containers, dry and cool place, no ventilation) are the essential conditions to keep the effectiveness of the reducing agent unaltered throughout the shelf life declared on bag.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Acids, ammonium salts, aluminium or other base metals. Uncontrolled use of aluminium dust in wet cement-containing products is to be avoided because it causes the production of hydrogen.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1B(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Calcium dihydroxide	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LC50 Inhalation Dust Rat > 6.04 mg/l 4h	
		LD50 Skin Rabbit > 2500 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	f) carcinogenicity	Carcinogenicity Oral Rat = 517 mg/kg	NOAEL
formaldehyde	a) acute toxicity	LD50 Oral > 2000 mg/kg	
	a) acute toxicity	LD50 Oral Rat = 640 mg/kg	
		LC50 Inhalation Vapour Rat < 463 Ppm 4h	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive	

c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	
d) respiratory or skin sensitisation	Skin Sensitization Positive	mouse
f) carcinogenicity	Genotoxicity Rat Positive Carcinogenicity Rat Positive	
i) STOT-repeated exposure	No Observed Adverse Effect Level Oral Rat = 15 mg/kg	effects in the stomach

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Calcium dihydroxide	CAS: 1305-62-0 - EINECS: 215-137-3	a) Aquatic acute toxicity : LC50 Fish rainbow trout = 50.6 mg/L 96h a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 49.1 mg/L 48h b) Aquatic chronic toxicity : NOEC Crangon septemspinosa = 32 mg/L 48h - 14days a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 184.57 mg/L 72h „OECD Guideline 201 (Alga, Growth Inhibition Test) a) Aquatic acute toxicity : EC50 Sludge activated sludge = 300.4 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) d) Terrestrial toxicity : NOEC Worm Eisenia fetida = 2000 mg/kg „OECD Guideline 207 (Earthworm, Acute Toxicity Tests) d) Terrestrial toxicity : EC10 soil microorganisms = 4000 mg/kg „Guideline: BBA VI, 1-1 (1990) under consideration of OECD 216 (2000) and OECD 217 (2000).
formaldehyde	CAS: 50-00-0 - EINECS: 200-001-8 - INDEX: 605-001-00-5	a) Aquatic acute toxicity : LC50 Fish Morone saxatilis = 6.18 mg/L a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 5.8 mg/L 48h OECD guideline 202 b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna ≥ 6.4 mg/L OECD Test Guideline 211 a) Aquatic acute toxicity : EC50 Algae freshwater algae = 5.67 mg/L 72h a) Aquatic acute toxicity : EC50 Sludge activated sludge = 19 mg/L 3h d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 1 µg/cm ² 48h - 1 - 10 µg/cm ²

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Notes:
formaldehyde	Readily biodegradable	Dissolved organic carbon	OECD guidelines 301 A

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test
formaldehyde	Not bioaccumulative	BCF - Bioconcentration

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessmentNo PBT or vPvB substances present in concentration $\geq 0.1\%$ **12.6. Endocrine disrupting properties**No endocrine disruptor substances present in concentration $\geq 0.1\%$ **12.7. Other adverse effects**

N.A.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Disposal through discharge into wastewater is not permitted

The product disposed of as such, pursuant to Regulation (EU) 1357/2014, must be classified as hazardous waste

A waste code according to the European List of Wastes (LoW) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

N.A.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

EN 196-10 – "Methods of Testing Cement - Part 10: Determination of the water-soluble chromium (VI) content of cement"

According to Annex XVII, Point 47, under Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as amended by Regulation No. 552/2009, cement and mixtures containing cement shall not be placed on the market or used if they contain, after mixing with water, more than 0.0002% (2 ppm) of soluble chromium (VI) of the total dry weight of the cement. Compliance with this threshold limit is ensured through the introduction of a reducing agent into the preparation, the effectiveness of which is guaranteed for a certain period of time (shelf life), and the maintenance of the appropriate storage conditions (see Subsection 7.2 and Section 10).

Cement is a mixture and, as such, is not subject to REACH registration, which is mandatory for substances. Cement clinker is a substance, but it is exempt from registration pursuant to article 2.7 (b) and Annex V.10 of REACH.

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2020/878
Regulation (EC) nr 648/2004 (Detergents).

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 28, 72, 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

SVHC Substances:

No SVHC substances present in concentration $\geq 0.1\%$

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

Calcium dihydroxide

SECTION 16: Other information

Code	Description	
H301	Toxic if swallowed.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H331	Toxic if inhaled.	
H335	May cause respiratory irritation.	
H341	Suspected of causing genetic defects.	
H350	May cause cancer.	
H372	Causes damage to organs through prolonged or repeated exposure.	
Code	Hazard class and hazard category	Description
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.5/2	Muta. 2	Germ cell mutagenicity, Category 2

3.6/1B	Carc. 1B	Carcinogenicity, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
--	---------------------------------

Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1B, H317	Calculation method
STOT SE 3, H335	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: Keep Away From Heat

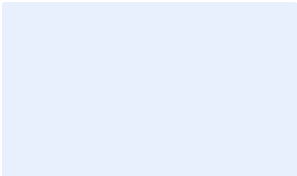
KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.



Exposure Scenario

Calcium dihydroxide

Exposure Scenario, 24/06/2021

Substance identity	
	Calcium dihydroxide
CAS No.	1305-62-0
EINECS No.	215-137-3
Registration number	01-2119475151-45

Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC9b, PC15)

1. ES 1		Widespread use by professional workers; Various products (PC9a, PC9b, PC15)	
1.1 TITLE SECTION			
Exposure Scenario name	Professional application of coatings and inks - Use in rigid foams, coatings, adhesives and sealants		
Date - Version	24/06/2021 - 1.0		
Life Cycle Stage	Widespread use by professional workers		
Main user group	Professional uses		
Sector(s) of use	Professional uses (SU22)		
Product Categories	Coatings and paints, thinners, paint removers (PC9a) - Fillers, putties, plasters, modelling clay (PC9b) - Non-metal surface treatment products (PC15)		
Environment Contributing Scenario			
CS1	ERC8c - ERC8f		
Worker Contributing Scenario			
CS2 Material transfers	PROC8a		
CS3 Hand application - finger paints, pastels, adhesives - Rolling, Brushing	PROC10		
CS4 Mixing operations - Manual	PROC19		
1.2 Conditions of use affecting exposure			
1.2. CS1: Environment Contributing Scenario (ERC8c, ERC8f)			
Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)		
<i>Product (article) characteristics</i>			
Physical form of product: Solid, medium dustiness			
Vapour pressure: < 1E-05 Pa			
1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)			
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)		
<i>Product (article) characteristics</i>			
Physical form of product: Solid, medium dustiness			
<i>Amount used, frequency and duration of use/exposure</i>			
Duration: Exposure duration <= 480 min			
<i>Technical and organisational conditions and measures</i>			
Technical and organisational measures			
Ensure operatives are trained to minimise exposures. Avoid direct eye contact with product, also via contamination on hands. Do not ingest. Local exhaust ventilation		Inhalation - minimum efficiency of: 72 %	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>			

Personal protection Wear suitable gloves tested to EN374. Use suitable eye protection. Wear suitable face shield.	
<i>Other conditions affecting worker exposure</i>	
Covers indoor and outdoor use Professional use Temperature: Covers use at ambient temperatures. Body parts exposed: Assumes that potential dermal contact is limited to upper part of the body.	
<i>Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.</i>	
Additional Good Practice Advice: Ensure control measures are regularly inspected and maintained. Open doors and windows. Prevent leaks and prevent soil / water pollution caused by leaks.	
1.2. CS3: Worker Contributing Scenario: Hand application - finger paints, pastels, adhesives - Rolling, Brushing (PROC10)	
Process Categories	Roller application or brushing (PROC10)
<i>Product (article) characteristics</i>	
Physical form of product: Solid, medium dustiness	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration <= 480 min	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Avoid direct eye contact with product, also via contamination on hands. Do not ingest.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use suitable eye protection. Wear suitable face shield.	
<i>Other conditions affecting worker exposure</i>	
Covers indoor and outdoor use Professional use Temperature: Covers use at ambient temperatures.	
<i>Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.</i>	
Additional Good Practice Advice: Ensure control measures are regularly inspected and maintained. Prevent leaks and prevent soil / water pollution caused by leaks.	
1.2. CS4: Worker Contributing Scenario: Mixing operations - Manual (PROC19)	
Process Categories	Manual activities involving hand contact (PROC19)
<i>Product (article) characteristics</i>	
Physical form of product: Solid, medium dustiness	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration <= 240 min	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Avoid direct eye contact with product, also via contamination on hands. Do not ingest.	

Local exhaust ventilation
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.
Use suitable eye protection.
Wear suitable face shield.

Other conditions affecting worker exposure

Outdoor use
Professional use

Temperature: Covers use at ambient temperatures.

Body parts exposed:

Assumes that potential dermal contact is limited to upper part of the body.

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained. Open doors and windows. Prevent leaks and prevent soil / water pollution caused by leaks.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8c, ERC8f)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
soil	N/A	N/A	= 0.65

1.3. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative	< 1 mg/m ³	MEASE	N/A

1.3. CS3: Worker Contributing Scenario: Hand application - finger paints, pastels, adhesives - Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative	< 1 mg/m ³	MEASE	N/A

Additional information on exposure estimation:

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374.

1.3. CS4: Worker Contributing Scenario: Mixing operations - Manual (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative	< 1 mg/m ³	MEASE	N/A

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least

equivalent levels.