

Safety Data Sheet

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

BIOCALCE MARMORINO

Date of first edition: 5/24/2021

Safety Data Sheet dated 9/15/2021

version 6

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

1.1. Product identifier

Mixture identification:

Trade name: BIOCALCE MARMORINO

Trade code: 001043004

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

Recommended use: Grout

Uses advised against: Not available

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL S.p.A.

Via dell'Artigianato, 9

41049 Sassuolo (MODENA) - ITALY

Tel.+39 0536 816511 Fax. +39 0536816581

safety@kerakoll.com

1.4. Emergency telephone number

European emergency phone number 112

Kerakoll Italy - +39-0536-816511

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)

Eye Dam. 1 Causes serious eye damage.

Skin Irrit. 2 Causes skin irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

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

Pictograms and Signal Words



Danger

Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements

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.

Special Provisions:

EUH208 Contains 2-methylisothiazol-3(2H)-one. May produce an allergic reaction.

Contains

Calcium dihydroxide

Dir. 2004/42/EC (VOC directive)

- Exterior walls of mineral substrate
- EU limit value for this product (cat. A/c): 40 g/l
- This product contains max 12.36 g/l VOC.

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

None

2.3. Other hazards

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

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: BIOCALCE MARMORINO

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

Qty	Name	Ident. Numb.	Classification	Registration Number
10-19,9 %	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
< 0,01 %	octhilinone (ISO); 2-octyl-2H-isothiazol-3-one	CAS:26530-20-1 EC:247-761-7 Index:613-112-00-5	Acute Tox. 2, H330; Acute Tox. 3, H311; Acute Tox. 3, H301; Skin Corr. 1, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Corrosive to the respiratory tract., M-Chronic:100, M-Acute:1	
			Specific Concentration Limits: C ≥ 0.0015%: Skin Sens. 1A H317	
			Acute Toxicity Estimate: ATE - Oral: 125mg/kg bw ATE - Dermal: 311mg/kg bw	
< 0,0015 %	2-methylisothiazol-3(2H)-one	CAS:2682-20-4 EC:220-239-6 Index:613-326-00-9	Acute Tox. 2, H330; Acute Tox. 3, H301; Acute Tox. 3, H311; Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:10, EUH071	01-2120764690-50
			Specific Concentration Limits: C ≥ 0.0015%: Skin Sens. 1A 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:

Remove casualty to fresh air and keep warm and at rest.

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

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

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.

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.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

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)

Component	OEL Type	Country	Ceiling	Long Term mg/m ³	Long Term ppm	Short Term mg/m ³	Short Term ppm	Notes
Calcium carbonate	NATIONAL	AUSTRALIA		10.000				This value is for inhalable dust containing no asbestos and <1 % crystalline silica.
	NATIONAL	CANADA		10.000				
	NATIONAL	FRANCE		10.000				inhalable aerosol
	NATIONAL	HUNGARY		10.000				inhalable aerosol
	NATIONAL	IRELAND		10.000				Inhalable fraction
	NATIONAL	IRELAND		4.000				Respirable fraction
	NATIONAL	LATVIA		6.000				
	NATIONAL	NEW ZEALAND		10.000				The value for inhalable dust containing no asbestos and less than 1% free silica.
	NATIONAL	POLAND		10.000				
	NATIONAL	SINGAPORE		10.000				(limestone, marble)
	NATIONAL	SWITZERLAND		3.000				respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA		15.000				total dust
	NATIONAL	UNITED STATES OF AMERICA		5.000				respirable dust
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		10.000				inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		4.000				respirable aerosol
	NATIONAL	ITALY		10.000				
	NATIONAL	BELGIUM		10.000				
	NATIONAL	KOREA, REPUBLIC OF		10.000				
	NATIONAL	CROATIA		10.000				
	NATIONAL	NETHERLANDS		10.000				
	NATIONAL	PORTUGAL		10.000				
	NATIONAL	SPAIN		10.000				
	NATIONAL	CHILE		5.000				respirable fraction
Calcium dihydroxide	NATIONAL	AUSTRALIA		5.000				

NATIONAL	AUSTRIA	1.000		Inhalable fraction
NATIONAL	AUSTRIA C		4.000	Inhalable fraction
NATIONAL	BELGIUM	5.000		
NATIONAL	CANADA	5.000		Ontario
NATIONAL	CANADA	5.000		Quebec
NATIONAL	DENMARK	5.000	10.000	
NATIONAL	FINLAND	1.000	4.000	
NATIONAL	FRANCE	1.000	4.000	Italics type: Indicative statutory limit values; long term and short term: respirable fraction
NATIONAL	GERMANY	1.000	2.000	ASG; Long term and short term: inhalable fraction
NATIONAL	GERMANY	1.000	2.000	DFG; Long term and short term: inhalable aerosol
NATIONAL	HUNGARY	5.000		
NATIONAL	IRELAND	5.000		
NATIONAL	LATVIA	1.000	4.000	Long term and short term: respirable fraction
NATIONAL	NEW ZEALAND	5.000		
NATIONAL	ROMANIA	1.000	4.000	Long term and short term: respirable fraction
NATIONAL	SINGAPORE	5.000		
NATIONAL	SPAIN	5.000		
NATIONAL	SWEDEN	1.000	4.000	Long term and short term: respirable fraction
NATIONAL	SWITZERLA ND	5.000		Inhalable aerosol
NATIONAL	TURKEY	5.000		
NATIONAL	UNITED STATES OF AMERICA	5.000		NIOSH
NATIONAL	UNITED STATES OF AMERICA	15.000		OSHA; inhalable aerosol
NATIONAL	UNITED STATES OF AMERICA	5.000		OSHA; respirable aerosol
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	5.000		Inhalable fraction
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	1.000		Respirable fraction
NATIONAL	ITALY	1.000	4.000	
NATIONAL	ARGENTINA	5.000		
NATIONAL	KOREA, REPUBLIC OF	5.000		
NATIONAL	INDONESIA	5.000		

Diiron trioxide	NATIONAL	MALAYSIA	5.000		
	NATIONAL	MEXICO	5.000		
	NATIONAL	PORTUGAL	5.000		
	NATIONAL	SOUTH AFRICA	5.000		
	NATIONAL	TAIWAN, PROVINCE OF CHINA	5.000		
	NATIONAL	BULGARIA	1.000	4.000	
	NATIONAL	CZECHIA	1.000	4.000	
	NATIONAL	CROATIA	1.000	4.000	Long term and short term: respirable dust
	NATIONAL	ESTONIA	1.000	4.000	
	NATIONAL	ICELAND	1.000	4.000	
	NATIONAL	LITHUANIA	1.000	4.000	
	NATIONAL	NORWAY	1.000	4.000	
	NATIONAL	NETHERLANDS	1.000	4.000	
	NATIONAL	SLOVAKIA	1.000	4.000	
	NATIONAL	SLOVENIA	1.000	4.000	
	NATIONAL	RUSSIAN FEDERATION			2.000
	NATIONAL	POLAND	2.000	6.000	Long term and short term: inhalable fraction
	NATIONAL	POLAND	1.000	4.000	Long term and short term: respirable fraction
	ACGIH	NNN	5		Eye, URT and skin irr
	EU	NNN	1	4	Respirable fraction
	NATIONAL	AUSTRALIA	5.000		
	NATIONAL	AUSTRIA	5.000	10.000	long term and short term: respirable aerosol
	NATIONAL	BELGIUM	5.000	2.000	
	NATIONAL	CANADA	5.000		Ontario; respirable aerosol
	NATIONAL	CANADA	5.000		Québec
	NATIONAL	DENMARK	3.500	7.000	
	NATIONAL	FINLAND	5.000		Calculated as Fe; fume
	NATIONAL	HUNGARY	6.000		Respirable aerosol
	NATIONAL	IRELAND	5.000	10.000	
	NATIONAL	NEW ZEALAND	5.000		
	NATIONAL	POLAND	5.000	10.000	
	NATIONAL	ROMANIA	5.000	10.000	
	NATIONAL	SINGAPORE	5.000		
	NATIONAL	KOREA, REPUBLIC OF	5.000		
	NATIONAL	SPAIN	5.000		
	NATIONAL	SWEDEN	3.500		
	NATIONAL	SWITZERLAND	3.000		Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	5.000		NIOSH; AS Fe, total particulate
	NATIONAL	UNITED	10.000		OSHA

		STATES OF AMERICA			
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	5.000	10.000	
	NATIONAL	ITALY	5.000		
	NATIONAL	ARGENTINA	5.000		
	NATIONAL	BULGARIA	5.000		
	NATIONAL	CROATIA	5.000		
	NATIONAL	ESTONIA	3.500		
	NATIONAL	FRANCE	5.000		
	NATIONAL	GERMANY	1.250		
	NATIONAL	GREECE	10.000	10.000	
	NATIONAL	INDONESIA	5.000		
	NATIONAL	ICELAND	3.500		
	NATIONAL	LITHUANIA	3.500		
	NATIONAL	MALAYSIA	5.000	2.000	
	NATIONAL	MEXICO	5.000		Respirable fraction
	NATIONAL	NORWAY	3.000		
	NATIONAL	PORTUGAL	5.000		
	NATIONAL	RUSSIAN FEDERATION	6.000		
	NATIONAL	SLOVAKIA	1.500		
	NATIONAL	SLOVENIA	6.000		
	NATIONAL	SOUTH AFRICA	5.000		Respirable particulate
	NATIONAL	SOUTH AFRICA	10.000		Inhalable particulate
	NATIONAL	TAIWAN, PROVINCE OF CHINA	10.000		
	NATIONAL	HUNGARY	6.000		
	ACGIH	NNN	5		(R), A4 - Pneumoconiosis
Titanium dioxide	NATIONAL	AUSTRALIA	10.000		This value is for inhalable dust containing no asbestos and < 1% crystalline silica
	NATIONAL	BELGIUM	10.000		
	NATIONAL	CANADA	10.000		Ontario
	NATIONAL	CANADA	10.000		Quebec
	NATIONAL	DENMARK	6.000	12.000	Long term and short term: total dust
	NATIONAL	FRANCE	11.000		Inhalable aerosol
	NATIONAL	GERMANY	0.300	2.400	DFG; Long term and short term: excluding ultrafine particles; respirable fraction; multiplied by the material density;
	NATIONAL	IRELAND	10.000		Inhalable fraction
	NATIONAL	IRELAND	8.000		Respirable fraction
	NATIONAL	JAPAN	0.300		JSOH; Nanoparticle, as Ti
	NATIONAL	LATVIA	10.000		
	NATIONAL	NEW ZEALAND	10.000		The value for inhalable dust containing no asbestos and

				less than 1% free silica
	NATIONAL	CHINA	8.000	Inhalable fraction
	NATIONAL	POLAND	10.000	30.000
	NATIONAL	ROMANIA	10.000	15.000
	NATIONAL	SINGAPORE	10.000	
	NATIONAL	KOREA, REPUBLIC OF	10.000	
	NATIONAL	SPAIN	10.000	Inhalable aerosol
	NATIONAL	SWEDEN	5.000	Inhalable aerosol
	NATIONAL	SWITZERLA ND	3.000	Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	15.000	OSHA; total dust
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000	Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000	Respirable aerosol
	NATIONAL	ITALY	10.000	
	NATIONAL	ARGENTINA	10.000	
	NATIONAL	AUSTRIA	5.000	10.000
	NATIONAL	BULGARIA	10.000	
	NATIONAL	CROATIA	10.000	Total dust
	NATIONAL	CROATIA	4.000	Respirable dust
	NATIONAL	ESTONIA	5.000	
	NATIONAL	GREECE	10.000	
	NATIONAL	GREECE	5.000	
	NATIONAL	INDONESIA	10.000	
	NATIONAL	LITHUANIA	5.000	
	NATIONAL	MALAYSIA	10.000	
	NATIONAL	MEXICO	10.000	
	NATIONAL	NORWAY	5.000	
	NATIONAL	PORTUGAL	10.000	
	NATIONAL	RUSSIAN FEDERATIO N	10.000	
	NATIONAL	SLOVAKIA	5.000	
	NATIONAL	SLOVENIA	6.000	
	NATIONAL	SOUTH AFRICA	10.000	Inhalable particulate
	NATIONAL	SOUTH AFRICA	5.000	Respirable particulate
	NATIONAL	TAIWAN, PROVINCE OF CHINA	10.000	
	ACGIH	NNN	10	A4 - LRT irr
Barium sulfate	NATIONAL	AUSTRALIA	10.000	

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	NATIONAL	BELGIUM	5.000		Without asbestos fibers and <1% crystalline silica
	NATIONAL	CANADA	5.000		Ontario; This value is for particulate matter containing no asbestos and <1% crystalline silica
	NATIONAL	CANADA	10.000		Quebec
	NATIONAL	GERMANY	0.300	2.400	DFG; Multiplied by the density of the material; Long term and short term: respirable fraction
	NATIONAL	GERMANY	4.000		DFG; Inhalable fraction
	NATIONAL	IRELAND	2.000		Respirable fraction
	NATIONAL	LATVIA	6.000		
	NATIONAL	NEW ZEALAND	10.000		
	NATIONAL	CHINA	10.000		
	NATIONAL	CHINA	5.000		Inhalable fraction; barite
	NATIONAL	SINGAPORE	10.000		
	NATIONAL	SPAIN	10.000		Inhalable aerosol
	NATIONAL	UNITED STATES OF AMERICA	10.000		NIOSH; total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000		NIOSH; respirable fraction
	NATIONAL	UNITED STATES OF AMERICA	15.000		OSHA; inhalable fraction
	NATIONAL	UNITED STATES OF AMERICA	5.000		OSHA; respirable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000		Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000		Respirable aerosol
	ACGIH	NNN	5		(I, E) - Pneumoconiosis
	NATIONAL	AUSTRIA	1000.000	4000.000	Long term and short term: INHALABLE FRACTION
	NATIONAL	DENMARK	1000.000	2000.000	
	NATIONAL	GERMANY	1000.000	8000.000	AGS; Long term and short term: inhalable aerosol
	NATIONAL	GERMANY	200.000	400.000	DFG; Long term and short term: inhalable aerosol
	NATIONAL	SWITZERLAND		1000.000	
	NATIONAL	RUSSIAN FEDERATION		10.000	

Aluminium hydroxide	NATIONAL	SLOVAKIA	100.000		
	NATIONAL	AUSTRIA	10.000	20.000	Long term and short term: inhalable fraction; short term: 60 minutes average value
	NATIONAL	AUSTRIA	5.000	10.000	Long term and short term: respirable fraction; short term: 60 minutes average value
	NATIONAL	GERMANY	4.000		Inhalable aerosol
	NATIONAL	GERMANY	1.500		Respirable aerosol
	NATIONAL	LATVIA	6.000		
	NATIONAL	POLAND	2.500		Fume, total dust
	NATIONAL	POLAND	1.200		Fume, respirable dust
	NATIONAL	SWITZERLAND	3.000		Respirable aerosol
	NATIONAL	ARGENTINA	2.000		
	NATIONAL	AUSTRALIA	2.000		
	NATIONAL	BELGIUM	2.000		
	NATIONAL	BULGARIA	2.000		
	NATIONAL	CANADA	10.000		
	NATIONAL	KOREA, REPUBLIC OF	2.000		
	NATIONAL	CROATIA	2.000		
	NATIONAL	DENMARK	1.000		
	NATIONAL	ESTONIA	2.000		
	NATIONAL	FINLAND	2.000		
	NATIONAL	FRANCE	2.000		
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	2.000		
	NATIONAL	GREECE	2.000		
	NATIONAL	INDONESIA	2.000		
	NATIONAL	IRELAND	2.000		
	NATIONAL	ICELAND	2.000		
	NATIONAL	LITHUANIA	6.000		
	NATIONAL	NORWAY	2.000		
	NATIONAL	NEW ZEALAND	5.000		
	NATIONAL	RUSSIAN FEDERATION	6.000		
	NATIONAL	SLOVAKIA	2.000		
	NATIONAL	SLOVENIA	6.000		
	NATIONAL	SPAIN	2.000		
	NATIONAL	SWEDEN	1.000		
	NATIONAL	SWEDEN	1.000		
silicon dioxide, chemically prepared	NATIONAL	AUSTRALIA	2.000		This value is for inhalable dust containing no asbestos and < 1% crystalline silica
	NATIONAL	AUSTRIA	4.000		Inhalable aerosol
	NATIONAL	BELGIUM	10.000		
	NATIONAL	CANADA	10.000		Ontario
	NATIONAL	CANADA	6.000		Quebec

Magnesium oxide	NATIONAL	DENMARK	2.000	4.000	Inhalable aerosol
	NATIONAL	FINLAND	5.000		
	NATIONAL	GERMANY	4.000		AGS; Inhalable aerosol
	NATIONAL	GERMANY	4.000		DFG; Inhalable aerosol
	NATIONAL	IRELAND	6.000		Inhalable fraction
	NATIONAL	IRELAND	2.400		Respirable fraction
	NATIONAL	LATVIA	1.000		
	NATIONAL	NEW ZEALAND	1.000		
	NATIONAL	CHINA	2.000		Inhalable fraction
	NATIONAL	SINGAPORE	10.000		
	NATIONAL	KOREA, REPUBLIC OF	10.000		
	NATIONAL	SWITZERLAND	4.000		Inhalable aerosol
	NATIONAL	UNITED STATES OF AMERICA	80.000		OSHA; 80/ % silica total dust (MG3)
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	6.000		Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	2.400		Respirable aerosol
	NATIONAL	ESTONIA	2.000		
	NATIONAL	SLOVENIA	4.000		Inhalable fraction
	NATIONAL	SOUTH AFRICA	6.000		Inhalable particulate
	NATIONAL	SOUTH AFRICA	3.000		Respirable particulate
	NATIONAL	AUSTRALIA	10.000		
	NATIONAL	BELGIUM	10.000		
	NATIONAL	CANADA	10.000		Ontario
	NATIONAL	CANADA	10.000		Quebec
	NATIONAL	DENMARK	6.000	12.000	Long term and short term: inhalable aerosol
	NATIONAL	FRANCE	10.000		Respirable aerosol
	NATIONAL	GERMANY	4.000		DFG; inhalable aerosol
	NATIONAL	GERMANY		1.500	DFG; respirable aerosol
	NATIONAL	HUNGARY	6.000	24.000	Long term and short term: respirable aerosol
	NATIONAL	IRELAND	10.000		Respirable fraction
	NATIONAL	IRELAND		4.000	Inhalable fraction
	NATIONAL	IRELAND	5.000		Fume
	NATIONAL	IRELAND	10.000		Inhalable fraction
	NATIONAL	NEW ZEALAND	10.000		Fume
	NATIONAL	CHINA	10.000		
	NATIONAL	POLAND	5.000		Fume

Quartz	NATIONAL	POLAND	10.000		Dust
	NATIONAL	SINGAPORE	10.000		
	NATIONAL	KOREA, REPUBLIC OF	10.000		
	NATIONAL	SPAIN	10.000		Inhalable aerosol
	NATIONAL	SPAIN	10.000		Respirable aerosol
	NATIONAL	SWITZERLA ND	3.000		Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	15.000		OSHA; total dust
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000		Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000		Respirable aerosol
	NATIONAL	ITALY	10.000		
	NATIONAL	ARGENTINA	10.000		
	NATIONAL	AUSTRIA	10.000		
	NATIONAL	CZECHIA	5.000	10.000	
	NATIONAL	CROATIA	10.000		total dust
	NATIONAL	CROATIA	4.000		Respirable dust
	NATIONAL	GREECE	10.000		
	NATIONAL	GREECE	5.000		
	NATIONAL	INDONESIA	10.000		
	NATIONAL	ICELAND	6.000		
	NATIONAL	LITHUANIA	4.000		
	NATIONAL	MALAYSIA	10.000		
	NATIONAL	MEXICO	10.000		Respirable fraction
	NATIONAL	NORWAY	10.000		
	NATIONAL	POLAND	10.000		
	NATIONAL	PORTUGAL	10.000		
	NATIONAL	ROMANIA	5.000	15.000	
	NATIONAL	RUSSIAN FEDERATIO N		4.000	
	NATIONAL	SLOVAKIA	4.000		respirable fraction
	NATIONAL	SLOVAKIA	10.000		Inhalable fraction
	NATIONAL	SLOVENIA	6.000		
	NATIONAL	SOUTH AFRICA	5.000	10.000	fume and respirable particulate
	NATIONAL	SOUTH AFRICA	10.000		Inhalable particulate
	NATIONAL	TAIWAN, PROVINCE OF CHINA	10.000		Fume
	NATIONAL	AUSTRALIA	0.100		Respirable fraction
	NATIONAL	AUSTRIA	0.150		respirable aerosol

zinc oxide	NATIONAL	BELGIUM	0.100		
	NATIONAL	CANADA	0.100		Canada Ontario. Respirable aerosol
	NATIONAL	CANADA	0.100		Canada Quebec
	NATIONAL	DENMARK	0.300	0.600	Inhalable aerosol
	NATIONAL	DENMARK	0.100	0.200	Respirable aerosol
	NATIONAL	FINLAND	0.050		Respirable fraction
	NATIONAL	FRANCE	0.100		Respirable aerosol
	NATIONAL	HUNGARY	0.150		Respirable aerosol
	NATIONAL	IRELAND	0.100		Respirable fraction
	NATIONAL	NEW ZEALAND	0.200		Respirable aerosol
	NATIONAL	CHINA	1.000		Inhalable fraction. 10% <= free SiO2 <= 50%.
	NATIONAL	CHINA	0.700		Inhalable fraction. 50% < free SiO2 <= 80%.
	NATIONAL	CHINA	0.500		Inhalable fraction. Free SiO2 < 80%.
	NATIONAL	SINGAPORE	0.100		Respirable aerosol.
	NATIONAL	SPAIN	0.100		Respirable fraction
	NATIONAL	SWEDEN	0.100		Respirable aerosol
	NATIONAL	SWITZERLAND	0.150		Respirable aerosol
	NATIONAL	NETHERLANDS	0.075		Respirable dust
	NATIONAL	ITALY	0.050		Silice cristallina
	NATIONAL	ITALY	0.025		A2
	NATIONAL	UNITED STATES OF AMERICA	0.050		NIOSH
	NATIONAL	KOREA, REPUBLIC OF	0.050		
	NATIONAL	ARGENTINA	0.050		
	NATIONAL	CHILE	0.080		
	NATIONAL	CROATIA	0.100		
	NATIONAL	ESTONIA	0.100		
	NATIONAL	INDIA	10.000		
	NATIONAL	LITHUANIA	0.100		
	NATIONAL	MALAYSIA	0.100		
	NATIONAL	MEXICO	0.025		Respirable fraction
	NATIONAL	NORWAY	0.300		Total dust
	NATIONAL	NORWAY	0.100		Respirable dust
	NATIONAL	PORTUGAL	0.025		
	NATIONAL	SLOVENIA	0.050	0.400	
	NATIONAL	SOUTH AFRICA	0.100		
	ACGIH	NNN	0.025		(R), A2 - Pulm fibrosis, lung cancer
	EU	NNN	0.100		(R), A2 - Pulm fibrosis, lung cancer
	NATIONAL	AUSTRALIA	10.000		This value is for inhalable dust containing no asbestos and < 1% crystalline silica
	NATIONAL	AUSTRALIA	10.000	5.000	Long term and short term:

				Fume
NATIONAL	BELGIUM	10.000		
NATIONAL	CANADA	2.000	10.000	Ontario; Long term and short term: respirable aerosol
NATIONAL	CANADA	10.000		Quebec
NATIONAL	FRANCE	10.000		
NATIONAL	JAPAN	1.000		Respirable dust
NATIONAL	JAPAN	4.000		Total dust: Total dust comprises particles with a flow speed of 50 to 80 cm/sec at the entry of a particle sampler
NATIONAL	LATVIA	0.500		
NATIONAL	NEW ZEALAND	10.000	10.000	
NATIONAL	CHINA	3.000	5.000	
NATIONAL	SINGAPORE	10.000		
NATIONAL	SPAIN	10.000		
NATIONAL	SWEDEN	5.000		
NATIONAL	SWITZERLAND	3.000	3.000	Long term and short term: respirable fraction
NATIONAL	UNITED STATES OF AMERICA	15.000	5.000	Total dust
NATIONAL	ITALY	2.000	10.000	
NATIONAL	ARGENTINA	5.000	10.000	Long term and short term: fume
NATIONAL	ARGENTINA	10.000		Dust
NATIONAL	AUSTRIA	5.000		
NATIONAL	BULGARIA	5.000	10.000	
NATIONAL	CZECHIA	2.000	5.000	
NATIONAL	CHILE	10.000	4.400	
NATIONAL	KOREA, REPUBLIC OF	5.000	10.000	
NATIONAL	CROATIA	2.000	10.000	Long term: respirable dust
NATIONAL	DENMARK	4.000		
NATIONAL	ESTONIA	5.000		
NATIONAL	FINLAND	2.000	10.000	
NATIONAL	GREECE	5.000	10.000	
NATIONAL	INDONESIA	2.000	10.000	
NATIONAL	IRELAND	2.000	10.000	Long term: respirable fraction
NATIONAL	LITHUANIA	5.000		
NATIONAL	MALAYSIA	5.000	10.000	
NATIONAL	NORWAY	5.000		
NATIONAL	POLAND	5.000	10.000	
NATIONAL	PORTUGAL	2.000	10.000	
NATIONAL	ROMANIA	5.000	10.000	
NATIONAL	RUSSIAN FEDERATION	0.500	1.500	
NATIONAL	SOUTH AFRICA	5.000	10.000	
NATIONAL	TAIWAN, PROVINCE OF CHINA	5.000		

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate	NATIONAL	HUNGARY	5.000		20.000		
	ACGIH	NNN	2		10		(R) - Metal fume fever
	NATIONAL	GERMANY	0.058	0.005	0.116	0.010	AGS; long term and short term: inhalable fraction and vapour
	NATIONAL	GERMANY	0.058	0.005	0.116	0.010	DFG
octhilinone (ISO); 2-octyl-2H-isothiazol-3-one	NATIONAL	SWITZERLAND	0.120	0.010	0.240	0.020	
	NATIONAL	SLOVENIA	0.120	0.010	0.240	0.020	
	NATIONAL	AUSTRIA	0.050		0.050		Long term and short term: inhalable aerosol
	NATIONAL	GERMANY	0.050		0.100		AGS; Long term and short term: inhalable aerosol
	NATIONAL	GERMANY	0.050		0.100		DFG; Long term and short term: inhalable aerosol
	NATIONAL	SWITZERLAND	0.050		0.100		Long term and short term: inhalable aerosol
	NATIONAL	SLOVENIA	0.050		0.100		Long term and short term: inhalable fraction
	NATIONAL	GERMANY	3.700	1.000	7.400	2.000	AGS; Long term and short term: inhalable fraction and vapour
2-amino-2-methylpropanol	NATIONAL	GERMANY	3.700	1.000	7.400	2.000	DFG; Long term and short term: inhalable fraction and vapour
	NATIONAL	SWITZERLAND	8.700	2.400	17.400	4.800	
	NATIONAL	SLOVENIA	3.700	1.000	17.400	4.800	
	NATIONAL	RUSSIAN FEDERATION			5.000		
sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen							
sodium hydroxide; caustic soda	NATIONAL	AUSTRALIA C			2		
	NATIONAL	AUSTRIA	2.000		4.000		Long term and short term: inhalable aerosol
	NATIONAL	BELGIUM	2.000				
	NATIONAL	CANADA C			2.000		Ontario
	NATIONAL	CANADA C			2.000		Quebec
	NATIONAL	DENMARK	2.000		2.000		
	NATIONAL	FINLAND C			2.000		
	NATIONAL	FRANCE	2.000				
	NATIONAL	HUNGARY	2.000		2.000		
	NATIONAL	IRELAND			2.000		
	NATIONAL	JAPAN C	2.000				JSOH; Reference value to the maximal exposure concentration of the substance during a working day
	NATIONAL	LATVIA	0.500				
	NATIONAL	NEW ZEALAND C			2.000		
	NATIONAL	CHINA C			2.000		
	NATIONAL	POLAND	0.500		1.000		
	NATIONAL	ROMANIA	1.000		3.000		

2-methylisothiazol-3(2H)-one	NATIONAL	SINGAPORE		2.000	
	NATIONAL	KOREA, REPUBLIC OF	C	2.000	
	NATIONAL	SPAIN		2.000	
	NATIONAL	SWEDEN		1.000	Long term and short term: inhalable fraction
	NATIONAL	SWITZERLAND		2.000	long term and short term: inhalable fraction
	NATIONAL	UNITED STATES OF AMERICA	C	2.000	NIOSH
	NATIONAL	UNITED STATES OF AMERICA	C	2.000	OSHA
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		2.000	
	NATIONAL	BULGARIA		2.000	
	NATIONAL	CZECHIA		1.000	2.000
	NATIONAL	ESTONIA		1.000	2.000
	NATIONAL	GREECE		2.000	2.000
	NATIONAL	SLOVAKIA		2.000	
	NATIONAL	SLOVENIA		2.000	
	NATIONAL	TAIWAN, PROVINCE OF CHINA		2.000	
	ACGIH	NNN	C	2	URT, eye, and skin irr
	NATIONAL	AUSTRIA		0.050	
	NATIONAL	GERMANY		0.200	0.400
	NATIONAL	SWITZERLAND		0.100	0.400
	NATIONAL	SLOVENIA		0.050	
Kaolin	NATIONAL	AUSTRALIA		10.000	This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
	NATIONAL	BELGIUM		2.000	
	NATIONAL	CANADA		2.000	Canada Ontario. Respirable aerosol. The value for this particulate matter containing no asbestos and <1 percent crystalline silica.
	NATIONAL	CANADA		5.000	Canada Québec
	NATIONAL	DENMARK		2.000	4.000
	NATIONAL	FINLAND		2.000	Respirable aerosol
	NATIONAL	FRANCE		10.000	Respirable fraction
	NATIONAL	IRELAND		2.000	Respirable aerosol
	NATIONAL	NEW ZEALAND		10.000	Inhalable aerosol
	NATIONAL	NEW ZEALAND		2.000	Respirable aerosol
	NATIONAL	SWITZERLAND		3.000	Respirable aerosol

		ND					
	NATIONAL	UNITED STATES OF AMERICA	15.000				OSHA: Total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000				OSHA: Respirable dust
	NATIONAL	UNITED STATES OF AMERICA	10.000				NIOSH: Respirable dust
	NATIONAL	UNITED STATES OF AMERICA	5.000				NIOSH: Respirable fraction
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	2.000				Respirable aerosol
	ACGIH	NNN	2				(E,R), A4 - Pneumoconiosis
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	NATIONAL	AUSTRIA	0.050				
	NATIONAL	GERMANY	0.200	0.400			DFG; Long term and short term: inhalable fraction
	NATIONAL	SWITZERLAND	0.200	0.400			Inhalable fraction
	NATIONAL	KOREA, REPUBLIC OF	0.100				
	NATIONAL	NETHERLANDS	0.200				
dimethyl sulfoxide	NATIONAL	AUSTRIA	160.000	50.000			
	NATIONAL	DENMARK	160.000	50.000	320.000	100.000	
	NATIONAL	FINLAND		50.000			
	NATIONAL	GERMANY	160.000	50.000	320.000	100.000	AGS
	NATIONAL	GERMANY	160.000	50.000	320.000	100.000	DFG
	NATIONAL	SWEDEN	150.000	50.000	500.000	150.000	
	NATIONAL	SWITZERLAND	160.000	50.000	320.000	100.000	
	NATIONAL	AUSTRIA	160.000	50.000			
	NATIONAL	ESTONIA	150.000	50.000	500.000	150.000	
	NATIONAL	LITHUANIA	150.000	50.000	500.000	150.000	
	NATIONAL	RUSSIAN FEDERATION			20.000		
	NATIONAL	SLOVENIA	160.000	50.000	320.000	100.000	
	NATIONAL	UNITED STATES OF AMERICA		250.000			
octamethylcyclotetrasiloxane	NATIONAL	UNITED STATES OF AMERICA		10.000			OARS WEEL

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency
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Calcium dihydroxide	1305-62-0	490.000 µg/l	Freshwater
		490.000 µg/l	Intermittent releases (freshwater)
		320.000 µg/l	Marine water
		3.000 mg/l	Microorganisms in sewage treatments
octhiline (ISO); 2-octyl-2H-isothiazol-3-one	26530-20-1	1080.000 mg/kg	Soil
		2.200 µg/l	Freshwater
		1.220 µg/l	Intermittent releases (freshwater)
		220.000 ng/L	Marine water
		122.000 ng/L	Intermittent releases (marine water)
		47.500 µg/kg	Freshwater sediments
		47.500 µg/kg	Marine water sediments
2-methylisothiazol-3(2H)-one	2682-20-4	8.200 µg/kg	Soil
		3.390 µg/l	Freshwater
		3.390 µg/l	Intermittent releases (freshwater)
		3.390 µg/l	Marine water
		3.390 µg/l	Intermittent releases (marine water)
		230.000 µg/l	Microorganisms in sewage treatments
		47.100 µg/kg	Soil

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	
Calcium dihydroxide	1305-62-0		1.000 mg/m³	1.000 mg/m³	Human Inhalation	Long Term, local effects	
			4.000 mg/m³	4.000 mg/m³	Human Inhalation	Short Term, local effects	
2-methylisothiazol-3(2H)-one	2682-20-4		21.000 µg/m³	21.000 µg/m³	Human Inhalation	Long Term, local effects	
			43.000 µg/m³	43.000 µg/m³	Human Inhalation	Short Term, local effects	
				27.000 µg/kg	Human Oral	Long Term, systemic effects	
				53.000 µg/kg	Human Oral	Short Term, systemic effects	

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical State Liquid

Color: In compliance with the product description

Odour: Light

Odour threshold: N.A.

pH: $\geq 11.00 \leq 11.40$

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: 1.60 g/cm³

Solubility in water: Soluble

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 = 0.77 % ; 12.36 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

Miscibility: N.A.

Conductivity: N.A.

Evaporation rate: N.A. No other relevant information

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

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	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
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	Not classified
	Based on available data, the classification criteria are not met
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 > 2000.00000 mg/kg LC50 Inhalation Dust Rat > 6.04000 mg/l 4h LD50 Skin Rabbit > 2500.00000 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 = 517.00000 mg/kg	NOAEL
octhilinone (ISO); 2-octyl-2H-isothiazol-3-one	a) acute toxicity	ATE - Oral : 125 mg/kg bw ATE - Dermal : 311 mg/kg bw LD50 Oral Rat = 500.00 mg/kg LC50 Inhalation Rat = 0.78 mg/l 4h LD50 Skin Rat = 311.00000 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 Guineapig Positive	
2-methylisothiazol-3(2H)-one	a) acute toxicity	LC50 Inhalation of aerosol Rat = 0.10000 mg/l 4h LD50 Oral Rat = 120.00000 mg/kg LD50 Skin Rat = 242.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative Carcinogenicity Oral Rat Negative	Oral route
	g) reproductive toxicity	Reproductive Toxicity Oral Rat = 200.00000 Ppm	NOAEL

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 = 50.60000 mg/L 96h a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 49.10000 mg/L 48h b) Aquatic chronic toxicity : NOEC Crangon septemspinosa = 32.00000 mg/L 48h - 14days a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 184.57000 mg/L 72h „OECD Guideline 201 (Alga, Growth Inhibition Test) a) Aquatic acute toxicity : EC50 Sludge activated sludge = 300.40000 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) d) Terrestrial toxicity : NOEC Worm Eisenia fetida = 2000.00000 mg/kg „OECD Guideline 207 (Earthworm, Acute Toxicity Tests) d) Terrestrial toxicity : EC10 soil microorganisms = 4000.00000 mg/kg „Guideline: BBA VI, 1-1 (1990) under consideration of OECD 216 (2000) and OECD 217 (2000).
octhiline (ISO); 2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112-00-5	a) Aquatic acute toxicity : LC50 Fish freshwater fish = 0.12200 mg/L dossier ECHA b) Aquatic chronic toxicity : EC10 Fish = 0.02200 mg/L dossier ECHA a) Aquatic acute toxicity : EC50 freshwater invertebrates = 0.18100 mg/L dossier ECHA b) Aquatic chronic toxicity : EC10 freshwater invertebrates = 0.03500 mg/L dossier ECHA LC50 Algae freshwater algae = 0.15000 mg/L
2-methylisothiazol-3(2H)-one	CAS: 2682-20-4 - EINECS: 220-239-6 - INDEX: 613-326-00-9	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4.77000 mg/L 96h „OECD Guideline 203 (Fish, Acute Toxicity Test) b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 4.93000 mg/L Dossier ECHA a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.93400 mg/L 48h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) b) Aquatic chronic toxicity : EC10 Daphnia Daphnia magna = 0.04400 mg/L OECD Guideline 211 (Daphnia magna Reproduction Test) - Duration 21d a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 0.10300 mg/L 72h Dossier ECHA a) Aquatic acute toxicity : EC50 Sludge activated sludge of a predominantly domestic sewage = 41.00000 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) b) Aquatic chronic toxicity : EC50 freshwater sediment = 50.00000 mg/kg Duration 28d Draft OECD Guideline (now OECD Guideline 225) - 28days

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Notes
octhiline (ISO); 2-octyl-2H-isothiazol-3-one	Non-readily biodegradable		
2-methylisothiazol-3(2H)-one	Non-readily biodegradable	CO2 production	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes
octhilonone (ISO); 2-octyl-2H-isothiazol-3-one	Bioaccumulative	BCF - Bioconcentration factor	19.210	L/kg ww
2-methylisothiazol-3(2H)-one	Bioaccumulative	BCF - Bioconcentration factor	5.750	carcass
	Bioaccumulative	BCF - Bioconcentration factor	48.100	viscera

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

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.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Properties of waste which render it hazardous (Annex III, Directive 2008/98/EC):

HP 4: Irritant — skin irritation and eye damage

SECTION 14: Transport information

14.1. UN number or ID number

N/A

14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

14.4. Packing group

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: N/A

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR-Label: N/A

ADR - Hazard identification number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code): N/A

ADR Limited Quantities: N/A

ADR Excepted Quantities: N/A

Air (IATA) :

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A

IATA-Subsidiary hazards: N/A

IATA-Erg: N/A

IATA-Special Provisioning: N/A

Sea (IMDG) :

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisioning: 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

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. 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, 40

Restrictions related to the substances contained: 70

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

N.A.

Regulation (EU) 649/2012 (PIC regulation):

No Substance Listed

German Water Hazard Class.

Class 1: slightly hazardous for water.

SVHC Substances:

No data available

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 0.77 %

Volatile Organic compounds - VOCs = 12.36 g/L

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
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H315	Causes skin irritation.
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H318	Causes serious eye damage.
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H335	May cause respiratory irritation.
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Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2

3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3

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.

Paragraphs modified from the previous revision:

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION



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.