

## Safety Data Sheet

Conforms to – Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II,  
as amended by UK SI 2021/904

### METRIC R2 FIX

Date of first edition: 6/11/2025

Safety Data Sheet dated 11/06/2025 version 1

# kerakoll

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

### 1.1. Product identifier

Mixture identification:

Trade name: METRIC R2 FIX

Trade code: K0089

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

Recommended use: N.A.

Uses advised against: N.A.

### 1.3. Details of the supplier of the safety data sheet

Kerakoll UK Ltd

Tomlinson Road, Leyland, Lancashire, PR25 2DY,

United Kingdom

Tel. 01772 456831

safety@kerakoll.co.uk

### 1.4. Emergency telephone number

UK National Poisons Information Service.

E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

#### GB CLP regulation:

Skin Irrit. 2	Causes skin irritation.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1B	May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### GB CLP regulation:

#### Hazard pictograms and Signal Word



Danger

#### Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

#### Precautionary statements

P261	Avoid breathing 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%)  
Flue Dust, Portland Cement

Special provisions according to Annex XVII of UK REACH:  
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 or vPvB 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: METRIC R2 FIX

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥10-<20 %	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	
≥10-<20 %	Limestone	CAS:1317-65-3 EC:215-279-6	Substance with a workplace exposure limit in Great Britain.	
≥0.5-<1 %	Flue Dust, Portland Cement	CAS:68475-76-3 EC:270-659-9	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335	
≥0.5-<1 %	Calcium dihydroxide	CAS:1305-62-0 EC:215-137-3	Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335	
≥0.20-<0.25 %	Kaolin	CAS:1332-58-7 EC:310-194-1	Substance with a workplace exposure limit in Great Britain.	
<0.0015 %	Propane-1,2-diol	CAS:57-55-6 EC:200-338-0	Substance with a workplace exposure limit in Great Britain.	

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).

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### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

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.

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### **SECTION 6: Accidental release measures**

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

##### **For non emergency personnel:**

Wear personal protection equipment.

Remove persons to safety.

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

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### **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.

See also section 8 for recommended protective equipment.

##### **Advice on general occupational hygiene:**

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

#### **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 aluminium 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, packaging's 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 (BS EN 196-10).

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:

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Community Occupational Exposure Limits (OEL)**

	<b>OEL Type</b>	<b>Country</b>	<b>Occupational Exposure Limit</b>
Quartz CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m <sup>3</sup> (8h) R, A2 - Pulm fibrosis, lung cancer
Portland Cement (Cr VI < 0,0002%) CAS: 65997-15-1	ACGIH		Long Term: 1 mg/m <sup>3</sup> (8h) E,R, A4 - Pulm func, resp symptoms, asthma
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Limestone CAS: 1317-65-3	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m <sup>3</sup> Inhalable fraction Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m <sup>3</sup> Respirable fraction Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Calcium sulfate CAS: 7778-18-9	ACGIH		Long Term: 10 mg/m <sup>3</sup> (8h) I - Nasal symptoms
Calcium dihydroxide CAS: 1305-62-0	ACGIH		Long Term: 5 mg/m <sup>3</sup> (8h) Eye, URT and skin irr
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 5 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Kaolin CAS: 1332-58-7	ACGIH		Long Term: 2 mg/m <sup>3</sup> (8h) E,R, A4 - Pneumoconiosis
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 2 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Quartz CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m <sup>3</sup> (8h) R, A2 - Pulm fibrosis, lung cancer
Propane-1,2-diol CAS: 57-55-6	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 474 mg/m <sup>3</sup> - 150 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	WEL-EH40	UNITED KINGDOM OF GREAT	Long Term: 10 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

### Predicted No Effect Concentration (PNEC) values

Flue Dust, Portland Cement CAS: 68475-76-3	Exposure Route: Fresh Water; PNEC Limit: 282 µg/l  Exposure Route: Intermittent releases (fresh water); PNEC Limit: 282 µg/l Exposure Route: Marine water; PNEC Limit: 28 µg/l Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 6 mg/kg Exposure Route: Marine water sediments; PNEC Limit: 88 µg/kg Exposure Route: Freshwater sediments; PNEC Limit: 875 µg/kg
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
Propane-1,2-diol CAS: 57-55-6	Exposure Route: Fresh Water; PNEC Limit: 260 mg/l  Exposure Route: Intermittent releases (fresh water); PNEC Limit: 183 mg/l Exposure Route: Marine water; PNEC Limit: 26 mg/l Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 20000 mg/l Exposure Route: Freshwater sediments; PNEC Limit: 572 mg/kg Exposure Route: Marine water sediments; PNEC Limit: 57.2 mg/kg Exposure Route: Soil; PNEC Limit: 50 mg/kg

### Derived No Effect Level (DNEL) values

Flue Dust, Portland Cement CAS: 68475-76-3	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 840 µg/m <sup>3</sup> ; Consumer: 840 µg/m <sup>3</sup>  Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 4 mg/m <sup>3</sup>
Calcium dihydroxide CAS: 1305-62-0	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 1 mg/m <sup>3</sup> ; Consumer: 1 mg/m <sup>3</sup>  Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 4 mg/m <sup>3</sup> ; Consumer: 4 mg/m <sup>3</sup>
Propane-1,2-diol CAS: 57-55-6	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 168 mg/m <sup>3</sup> ; Consumer: 50 mg/m <sup>3</sup>  Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 10 mg/m <sup>3</sup> ; Consumer: 10 mg/m <sup>3</sup>

### 8.2. Exposure controls

#### Eye protection:

Use close fitting safety goggles, don't use contact lenses.

#### 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

N.A.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical State: N.A.  
Appearance and colour: N.A.  
Odour: N.A.  
Odour threshold: N.A.  
pH: N.A.  
Melting point / freezing point: N.A.  
Initial boiling point and boiling range: N.A.  
Flash point: > 93°C  
Evaporation rate: N.A.  
Upper/lower flammability or explosive limits: N.A.  
Vapour density: N.A.  
Vapour pressure: N.A.  
Relative density: N.A.  
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.  
Viscosity: N.A.  
Explosive properties: N.A.  
Oxidizing properties: N.A.  
Solid/gas flammability: N.A.  
Volatile Organic compounds - VOCs = N.A.

### 9.2. Other information

Substance Groups relevant properties N.A.  
Miscibility: N.A.  
Conductivity: N.A.

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## 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.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 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	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:

Flue Dust, Portland Cement	a) acute toxicity	LD50 Oral Rat > 1848 mg/kg	
		LC50 Inhalation Dust Rat > 6.04 mg/l 4h	
		LD50 Skin Rat >= 2000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Negative	
	c) serious eye damage/irritation	Eye Irritant Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	
Calcium dihydroxide	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 16 mg/kg	
	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	
Propane-1,2-diol	f) carcinogenicity	Carcinogenicity Oral Rat = 517 mg/kg	NOAEL
	a) acute toxicity	LD50 Oral Rat = 22000 mg/kg	
		LD50 Skin Rabbit > 2000 mg/kg	
		LC50 Inhalation of aerosol Rabbit > 317042 mg/m3 2h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	f) carcinogenicity	Genotoxicity Rat Negative	
		Carcinogenicity Oral Negative	
	g) reproductive toxicity	No Observed Adverse Effect Level Oral = 10100 mg/kg	

## 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
Flue Dust, Portland Cement	CAS: 68475-76-	a) Aquatic acute toxicity : NOEC Fish zebrafish = 11.1 mg/L 96h ECHA

- a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 100 mg/L 48h OECD 202
- b) Aquatic chronic toxicity : NOELR Daphnia Daphnia magna = 50 mg/L 48h OECD 211
- b) Aquatic chronic toxicity : EL10 Daphnia Daphnia magna = 68.2 mg/L 48h OECD 211 - 21 days
- a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 28.2 mg/L 72h OECD 20
- a) Aquatic acute toxicity : EC50 Sludge activated sludge = 596 mg/L OECD Guideline No. 209
- b) Aquatic chronic toxicity : EC50 = 9931 mg/kg „PARCOM (1994): MAFF/ERT Harmonised Protocol: A sediment Bioassay using an Amphipod, Corophium sp. Draft 1994. - sediment
- d) Terrestrial toxicity : EC50 Worm Eisenia fetida = 1000 mg/kg „OECD Guideline 207 (Earthworm, Acute Toxicity Tests)

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).

Propane-1,2-diol

CAS: 57-55-6 -  
EINECS: 200-338-0

- a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 40613 mg/L 96h ECHA
- a) Aquatic acute toxicity : LC50 Americamysis bahia = 18.8 g/L 96h ECHA
- b) Aquatic chronic toxicity : NOEC Ceriodaphnia sp = 13020 mg/L ECHA - 1 week
- a) Aquatic acute toxicity : EC50 Algae Skeletonema costatum = 19000 mg/L 96h ECHA
- a) Aquatic acute toxicity : EC10 Pseudomonas putida > 20 g/L ECHA - 18h

## 12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Notes:
Propane-1,2-diol	Readily biodegradable	CO2 production	OECD306

## 12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
Propane-1,2-diol	Not bioaccumulative	BCF - Bioconcentration factor	0.090	calculated BCF

## 12.4. Mobility in soil

N.A.

## 12.5. Results of PBT and vPvB assessment

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

## 12.6. Other adverse effects

N.A.



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## 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

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## SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

### 14.1. UN 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. Transport in bulk according to Annex II of MARPOL and the IBC Code

N.A.

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## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Workplace exposure limit within the meaning of the Control of Substances Hazardous to Health Regulations 2002 (WEL-EH40)

REACH regulation as changed by the REACH etc. (Amendment etc.) (EU Exit) Regulations (UK REACH)

CLP regulation as changed by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations (GB CLP)

GB PIC legislation - (Regulation (EU) No 649/2012 as changed by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc) (EU Exit) Regulations

Restrictions related to the product or the substances contained according to Annex XVII of UK REACH:

Restrictions related to the product: 3

Restrictions related to the substances contained: None.

Additional Regulatory Information for Great Britain

No Additional Information

Provisions related to the Control of Major Accident Hazards Regulations 2015 (GB implementation of Seveso III):

None

GB PIC Legislation:

No substances listed

SVHC Substances:

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

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

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

Flue Dust, Portland Cement

Calcium dihydroxide

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## SECTION 16: Other information

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

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
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3

**Classification and procedure used to derive the classification for mixtures according to GB CLP regulation:**

Classification according to GB CLP	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1B, H317	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  
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.



## 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)	
<b>1.1 TITLE SECTION</b>			
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)		
<b>Environment Contributing Scenario</b>			
CS1	ERC8c - ERC8f		
<b>Worker Contributing Scenario</b>			
CS2 Material transfers	PROC8a		
CS3 Hand application - finger paints, pastels, adhesives - Rolling, Brushing	PROC10		
CS4 Mixing operations - Manual	PROC19		
<b>1.2 Conditions of use affecting exposure</b>			
<b>1.2. CS1: Environment Contributing Scenario (ERC8c, ERC8f)</b>			
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>			
<b>Physical form of product:</b> Solid, medium dustiness			
<b>Vapour pressure:</b> < 1E-05 Pa			
<b>1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)</b>			
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)		
<i>Product (article) characteristics</i>			
<b>Physical form of product:</b> Solid, medium dustiness			
<i>Amount used, frequency and duration of use/exposure</i>			
<b>Duration:</b> Exposure duration <= 480 min			
<i>Technical and organisational conditions and measures</i>			
<b>Technical and organisational measures</b>			
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>			

<b>Personal protection</b> 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 <b>Temperature:</b> Covers use at ambient temperatures. <b>Body parts exposed:</b> 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>	
<b>Additional Good Practice Advice:</b> Ensure control measures are regularly inspected and maintained. Open doors and windows. Prevent leaks and prevent soil / water pollution caused by leaks.	
<b>1.2. CS3: Worker Contributing Scenario: Hand application - finger paints, pastels, adhesives - Rolling, Brushing (PROC10)</b>	
<b>Process Categories</b>	Roller application or brushing (PROC10)
<i>Product (article) characteristics</i>	
<b>Physical form of product:</b> Solid, medium dustiness	
<i>Amount used, frequency and duration of use/exposure</i>	
<b>Duration:</b> Exposure duration <= 480 min	
<i>Technical and organisational conditions and measures</i>	
<b>Technical and organisational measures</b> 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>	
<b>Personal protection</b> 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 <b>Temperature:</b> Covers use at ambient temperatures.	
<i>Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.</i>	
<b>Additional Good Practice Advice:</b> Ensure control measures are regularly inspected and maintained. Prevent leaks and prevent soil / water pollution caused by leaks.	
<b>1.2. CS4: Worker Contributing Scenario: Mixing operations - Manual (PROC19)</b>	
<b>Process Categories</b>	Manual activities involving hand contact (PROC19)
<i>Product (article) characteristics</i>	
<b>Physical form of product:</b> Solid, medium dustiness	
<i>Amount used, frequency and duration of use/exposure</i>	
<b>Duration:</b> Exposure duration <= 240 min	
<i>Technical and organisational conditions and measures</i>	
<b>Technical and organisational measures</b> 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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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.





## Exposure Scenario

### Flue dust, portland cement

## Exposure Scenario, 08/06/2021

Substance identity	
	Flue dust, portland cement
CAS No.	68475-76-3
EINECS No.	270-659-9
Registration number	01-2119486767-17

## Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9b, PC9a, PC1, PC15)

1. ES 1		Widespread use by professional workers; Various products (PC9b, PC9a, PC1, PC15)	
<b>1.1 TITLE SECTION</b>			
Exposure Scenario name	Road and construction applications - Professional use of floor care products - Tackifier		
Date - Version	25/03/2021 - 1.0		
Life Cycle Stage	Widespread use by professional workers		
Main user group	Professional uses		
Sector(s) of use	Professional uses (SU22)		
Product Categories	Fillers, putties, plasters, modelling clay (PC9b) - Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1) - Non-metal surface treatment products (PC15)		
Article Category(ies)	Stone, plaster, cement, glass and ceramic articles: Large surface area articles (AC4a)		
<b>Environment Contributing Scenario</b>			
CS1 Low environmental release		ERC2	
<b>Worker Contributing Scenario</b>			
CS2 Mixing operations - Transfer from/pouring from containers - Hand application - finger paints, pastels, adhesives - Filling of equipment from drums or containers - Manual - Equipment cleaning and maintenance - Roller, spreader, flow application - Equipment maintenance		PROC5 - PROC8a - PROC8b - PROC10 - PROC11 - PROC19 - PROC26 - PROC28	
<b>1.2 Conditions of use affecting exposure</b>			
<b>1.2. CS1: Environment Contributing Scenario: Low environmental release (ERC2)</b>			
Environmental release categories	Formulation into mixture (ERC2)		
<i>Product (article) characteristics</i>			
<b>Physical form of product:</b> Solid, very high dustiness			
<b>Vapour pressure:</b> < 1E-05 Pa			
<b>1.2. CS2: Worker Contributing Scenario: Mixing operations - Transfer from/pouring from containers - Hand application - finger paints, pastels, adhesives - Filling of equipment from drums or containers - Manual - Equipment cleaning and maintenance - Roller, spreader, flow application - Equipment maintenance (PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC19, PROC26, PROC28)</b>			
Process Categories	Mixing or blending in batch processes - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Roller application or brushing - Non industrial spraying - Manual activities involving hand contact - Handling of solid inorganic substances at ambient temperature - Manual maintenance (cleaning and repair) of machinery (PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC19, PROC26, PROC28)		
<i>Product (article) characteristics</i>			
<b>Physical form of product:</b> Solid, very high dustiness Solid in solution pasty			
<b>Concentration of substance in product:</b> Covers percentage substance in the product up to 5 %.			
<i>Amount used, frequency and duration of use/exposure</i>			
<b>Duration:</b> Exposure duration <= 480 min			
<b>Frequency:</b>			

Use frequency = 8 h/event

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.  
Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.  
Ensure operatives are trained to minimise exposures.  
For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8.  
Do not ingest.

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

#### **Personal protection**

Wear suitable gloves tested to EN374.  
Use eye protection according to EN 166.  
Wear a respirator conforming to EN140.

### *Other conditions affecting worker exposure*

Covers indoor and outdoor use  
Professional use

**Temperature:** Covers use at ambient temperatures. 23°C

#### **Body parts exposed:**

Assumes that potential dermal contact is limited to hands and forearms.

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

#### **Additional Good Practice Advice:**

Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure procedures and training for emergency decontamination and disposal are in place. Ensure control measures are regularly inspected and maintained.

## 1.3 Exposure estimation and reference to its source

**1.3. CS2: Worker Contributing Scenario: Mixing operations - Transfer from/pouring from containers - Hand application - finger paints, pastels, adhesives - Filling of equipment from drums or containers - Manual - Equipment cleaning and maintenance - Roller, spreader, flow application - Equipment maintenance (PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC19, PROC26, PROC28)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, local, short-term	< 1 mg/m <sup>3</sup>	MEASE	<= 0.83

#### **Additional information on exposure estimation:**

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

## 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.