



MAKE MAKE

...BY HEISS DEVELOPMENT

Safety Data Sheet - MakeMake CastingConcrete

Date/last revised: 06-02-2023

Version: 3.0

Replaces date: 01.04.2019

Product: MakeMake CastingConcrete

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

1.1. Product identifier

Trade name: MakeMake CastingConcrete.

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

Recommended use: Highly suitable for casting in moulds.

1.3. Details of the supplier of the safety data sheet

Supplier: Heiss Development
Pramvej 7 8940
Randers SW, Denmark
Tel.: +45 86 42 26 26
Email: info@makemake.dk
WWW: www.makemake.net
Contact person: Erik Heiss
VAT no.: DK39641259

1.4. Emergency telephone number

Call the Poison Control Hotline (Bispebjerg Hospital): +45 82121212 in case of accident/poisoning.
The emergency line is open 24 hours a day.

In case of emergency, contact your local poison centre or emergency services.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP classification: H315: Causes skin irritation
H318: Causes serious eye damage
H335: May cause respiratory irritation.

Most important adverse effects:

Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Corrosive when mixed.



2.2. Label elements



Signal word:

Danger

Contains:

Portland cement.

Substance:

Hazard statements:

H315

H318

H335

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

Precautionary statements:

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338+310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Supplemental label elements

The product contains less than 2 mg water-soluble chromate/kg dry cement. This limit is maintained for 12 months after the production date if stored under dry conditions.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

Endocrine disrupting properties: None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No. / EC No. / REACH registration No.	Concentration	Notes	CLP
Portland cement	65997-15-1 266-043-4	40 – 50 %		Skin Irrit. 2;H315 Eye Dam. 1;H318 STOT SE 3;H335
Calcium dihydroxide	1305-62-0 215-137-3 01-2119475151-45	0,5 -< 3 %	12	Skin Irrit. 2;H315 Eye Dam. 1;H318 STOT SE 3;H335

Full text of H-/EUH-statements, see SECTION 16.

12 = Substance is included in the EU list of occupational exposure limit values.

SECTION 4: First aid measures



4.1. Description of first aid measures

Inhalation:	Seek fresh air. Rinse mouth thoroughly with water and blow nose thoroughly. Seek medical advice in case of discomfort.
Ingestion:	Immediately rinse mouth and drink plenty of water. Do not induce vomiting. Seek medical advice immediately.
Skin contact:	Immediately remove contaminated clothing. IF ON SKIN: Wash with plenty of soap and water. Subsequently, apply a rich cream to the skin. In case of persistent skin irritation, eczema or similar, seek medical advice.
Eye contact:	Immediately rinse with water. Do not rub eyes. Open eyes wide. Remove any contact lenses. Seek medical advice immediately. Continue rinsing until medical treatment begins.
Burns:	Not relevant.
General:	If seeking medical advice, bring the safety data sheet or label.

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

May cause severe irritation/burns, pain, tearing, and eyelid spasms. Risk of serious eye damage with loss of vision.

Irritating to the skin – may cause redness. Prolonged contact with the ready-to-use mixture may cause burns.

Dust may irritate the respiratory system and lead to throat irritation and coughing.

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

No special, immediate treatment is necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with powder, foam, carbon dioxide, or water.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters

If there is a risk of exposure to vapours and smoke gases, a self-contained breathing apparatus must be worn. Fire extinguishing water that has been in contact with the product may be corrosive.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Use personal protective equipment.

For emergency responders: Use personal protective equipment.



6.2. Environmental precautions

Spillage must not be discharged into sewers or surface water.

6.3. Methods and material for containment and cleaning up

Dry product must be collected in a way that minimises dust, e.g. using a vacuum cleaner. Mixed product is collected with a shovel, broom, or similar. Spillage can potentially be reused. If this is not possible, transfer the spillage to suitable waste containers.

6.4. Reference to other sections

See SECTION 8 for type of protective equipment.

See SECTION 13 for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid inhalation of dust.

Mechanical ventilation may be required.

Avoid contact with eyes and skin.

Avoid spreading dust. Use work methods that reduce dust formation.

The product must not be used after the expiry date or if it has absorbed moisture, as this may lead to a risk of developing chrome eczema.

There must be easy access to running water and an eye wash bottle.

Working with the product is subject to the Danish Working Environment Authority's Executive Order on work with code-numbered products.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original packaging in a dry place.

Opened packaging must be closed tightly after use and should be used as soon as possible. When stored under humid conditions, the chromate neutralisation will decrease.

Store safely, out of reach of children and not together with or near food, animal feed, medicinal products, and similar.

7.3. Specific end use(s)

See application - SECTION 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

Substance name	Period	ppm	mg/m ³	Fibre/cm ³	Remarks	Notes
Calcium dihydroxid	8h		5		Calcium dihydroxid	E
Calcium dihydroxid	15m				Calcium dihydroxid	(1), E
Calcium dihydroxid	8h		1		Calcium dihydroxide, respirable fraction	E
Calcium dihydroxid	15m		4		Calcium dihydroxide, respirable fraction	E
Mineral dust	8h		10		Inert	
Mineral dust	15m				Inert	(1)
Mineral dust	8h		5		Inert, respirable	
Mineral dust	15m				Inert, respirable	(1)

(1) / §3, stk. 2 = According to Danish regulations, the short-term exposure limit is twice the 8-hour exposure limit. grænseværdien.

E = Means that the substance has an EU occupational exposure limit value.



Measurement methods: Compliance with the specified exposure limits can be verified by occupational hygiene measurements.

Legal basis: Executive Order No. 1054 of 28 June 2022 from the Danish Working Environment Authority on occupational exposure limits for substances and materials. WEA Guideline No. C.0.1., August 2007, Occupational exposure limits for substances and materials.

PNEC

Calcium dihydroxide, CAS-no 1305-62-0				
Exposure	Value	Assessment factor	Extrapolation method	Note
PNEC aqua (freshwater)	0,49 mg/l			
PNEC aqua (marine water)	0,32 mg/l			
PNEC STP (sewage treatment plant)	3 mg/l			
PNEC soil	1080 mg/kg soil dw			

DNEL-workers

Calcium dihydroxide, CAS-no 1305-62-0					
Exposure	Value	Assessment factor	Dose descriptor	Main effect parameter	Note
Inhalation DNEL (acute - short-term exposure - local effects)	4 mg/m ³				
Inhalation DNEL (long-term exposure - local effects)	1 mg/m ³				

DNEL – General population

Calcium dihydroxide, CAS-no 1305-62-0					
Exposure	Value	Assessment factor	Dose descriptor	Main effect parameter	Note
Inhalation DNEL (acute - short-term exposure - local effects)	4 mg/m ³				
Inhalation DNEL (long-term exposure - local effects)	1 mg/m ³				

8.2. Exposure controls

Appropriate exposure control measures:

Mix dry product and water in a pump with a mixing screw. Smaller portions can be mixed in a bucket using a drill with an attached whisk/mixer paddle. Ensure effective ventilation.



General hygiene measures:

Wash hands before breaks, meals, using the toilet, and after work. Use mild soap and water followed by a high-fat cream. Change contaminated clothing.

Eye/face protection:

Use tightly fitting safety goggles if there is a risk of dust or splashes in the eyes. Not relevant when using a full-face mask. Eye protection must comply with EN 166.

Skin protection:

Use dedicated work clothing. Work clothes must always be changed when contaminated to such an extent that there is a risk of skin contact with the product. During splashing work, a hood, helmet, or cap with a large brim must also be worn.

Hand protection:

Use protective gloves made of, for example, nitrile rubber, potentially with cotton under-gloves. Gloves must comply with EN 374.

Respiratory protection:

During dusty work, e.g., during mixing, use a full-face or half-face mask with a P2 or P3 filter. Respiratory protection must comply with one of the following standards: EN 136 / 140 / 149.

Environmental exposure controls:

No specific requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
Physical state	Powder
Colour	Grey
Odour	None
Solubility	Soluble in/miscible with water

Parameter	Value/unit	Remarks
Odour threshold	ppm	No data
Melting point	°C	No data
Freezing point	°C	No data
Initial boiling point and boiling range	°C	No data
Flammability (solid, gas)		Not relevant
Flammability limits		Not relevant
Explosive limits		Not relevant
Flash point	vol%	Not relevant
Flash point	°C	Not relevant
Auto-ignition temperature	°C	Not relevant
Decomposition temperature	°C	No data
pH in solution		No data



pH in concentrate		Basic, approx. 13 (when mixed with water)
Kinematic viscosity	cSt	No data
Viscosity	cP	No data
Partition coefficient n-octanol/water		Not relevant
Vapour pressure	hPa	Not relevant
Density		1,2-1,4 kg/l
Relative density	g/cm ³	No data
Vapour Density		Not relevant
Relative vapour density (saturated air)		Not relevant
Particle characteristics		No data

9.2. Other information

Other information: None

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity.

10.2. Chemical Stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid contact with moisture and water during storage.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None when used according to the supplier's instructions.

SECTION 11: Toxicological information

11.1. Information on hazard classes

Acute toxicity – oral

Calcium dihydroxide, CAS-no 1305-62-0

Organism	Test type	Exposure type	Value	Conclusion	Test method	Source
Rat	LD50		>2000 mg/kg bw		OECD 425	

Ingestion may cause severe irritation of the mouth, oesophagus, and gastrointestinal tract. The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.



Acute toxicity – skin

Calcium dihydroxide, CAS-no 1305-62-0

Organism	Test type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		>2500 mg/kg bw		OECD 405	

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Acute toxicity – inhalation:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Skin corrosion/irritation:

Dust is irritating to moist skin. Prolonged contact with the ready-to-use mixture can cause burns.

Serious eye damage/irritation:

Dust or splashes from the ready-to-use mixture are severely irritating/corrosive and can cause permanent eye damage.

Respiratory or skin sensitisation:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Germ cell mutagenicity:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Carcinogenicity:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Reproductive toxicity:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

STOT-single exposure (Inhalation):

Dust can irritate the respiratory system and cause throat irritation and coughing.

STOT-repeated exposure:

Frequent inhalation of dust over a long period increases the risk of developing lung diseases. The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

Aspiration hazard:

The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

11.2. Information on other hazards

Endocrine disrupting properties:

None known

Other toxicological effects:

None known

SECTION 12: Ecological information



12.1. Toxicity

Calciumdihydroxid, cas-no 1205-62-0

Organism	Species	Exposure time	Test type	Value	Conclusion	Test method	Source
Freshwater fish			96gLC50	50.6 mg/l			
Saltwater fish			96hLC50	457 mg/l			
Freshwater invertebrates			48hEC50	49,1 mg/l			
Saltwater invertebrates			96hLC50	158 mg/l			
Freshwater algae			72hEC50	184,57 mg/l			
Freshwater algae			72hNOEC	48 mg/l			
Saltwater invertebrates			14dNOEC	32 mg/l			
Soil organisms			NOEC	2000 mg/kg soil dw			
Soil microorganisms			NOEC	12000 mg/kg soil dw			
Terrestrial plants			21dNOEC	1080 mg/kg			

The product is not expected to cause a risk of adverse effects on the environment. The product is not subject to classification. Based on available data, the classification criteria are not considered to be met.

12.2. Persistence and degradability

The product reacts with water, forming a solid, insoluble reaction product which, based on available information, is non-degradable.

12.3. Bioaccumulative potential

The product is not bioaccumulative.

12.4. Mobility in soil

The product hardens into a solid mass and is not mobile.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

The product can locally increase the pH value in the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Spills and residues must be delivered to a municipal collection point or an authorised waste disposal contractor.

Waste categories:

EWC-code: 17 09 03* Other construction and demolition wastes (including mixed wastes) containing hazardous substances.

When the product has hardened, it can be treated as ordinary construction waste. EWC-code: 17 07 01 Mixtures of concrete, bricks, tiles, and ceramics, other than those mentioned in 17 01 06.

SECTION 14: Transport information



14.1. UN number or ID number

Not relevant.

14.2. UN proper shipping name

Not relevant.

14.3. Transport hazard class(es)

Not relevant.

14.4. Packing group

Not relevant.

14.5. Environmental hazards

None.

14.6. Special precautions for user

None.

14.7. Maritime transport in bulk according to IMO instruments

Not relevant.

Other information: The product is not covered by the regulations on the transport of dangerous goods.

SECTION 15: Regulatory information

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

PR-no.: 1806963
Code number (MAL-code): 00-4 (1993)

Special provisions: Young people under the age of 18 may not professionally use or be exposed to the product. However, young people over the age of 15 are exempt from this rule if the product is a necessary part of an educational programme.

15.2. Chemical safety assessment

REACH registration no.	Substance name
01-2119475151-45	Calcium dihydroxide

SECTION 16: Other information

Version 3.0

Revised: 06.02.2023

Changes in sections: 1, 2, 3, 6, 8, 9, 11, 12, 13, 15, and 16.



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Explanation of abbreviations:	<p>PBT: Persistent, Bioaccumulative and Toxic. vPvB: Very Persistent and very Bioaccumulative. CLP: CLP Regulation (1272/2008) (Classification, Labelling and Packaging). DNEL: Derived No Effect Level. LD50: Lethal Dose 50%. LC50: Lethal Concentration 50%. EC50: Effect Concentration 50%. NOEC: No Observed Effect Concentration. Eye Dam.: Serious eye damage. Skin Irrit.: Skin irritation.</p>
Other information:	<p>MakeMake CastingConcrete is based on white cement, which has a naturally low chromium (VI) content because no chromium-containing raw materials are used in the production of white cement. MakeMake CastingConcrete will therefore always comply with the limit value of max. 2 mg water-soluble chromate/kg dry cement.</p>
Recommended education:	<p>None, but the user must be instructed in the performance of the work and be familiar with the contents of this safety data sheet.</p>
Classification method:	<p>Calculation based on the hazards of the known components.</p>
H-phrases:	<p>H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation.</p>