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

1.1 Product identifier

Betonamit

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

1.2.1 Relevant uses

Construction products

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

KUBATEC BMT AG
Widaustrasse 3
9491 Ruggell / LIECHTENSTEIN
Phone
Homepage www.betonamit.com
E-mail info@kubatec.li

Address enquiries to

Technical information info@kubatec.li

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body

+49 (0) 30-19240 (24h only english)
+49 (0) 228-19240 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Eye Dam. 1: H318 Causes serious eye damage.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H335 May cause respiratory irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms

Signal word DANGER

Contains: Calcium oxide

Cement, portland, chemicals

Hazard statements

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

Precautionary statements

P261 Avoid breathing dust.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P302+P352 IF ON SKIN: Wash with plenty of water / soap.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
P501 Dispose of contents/container in accordance with local/national regulation.

2.3 Other hazards

Human health dangers
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Environmental hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards
Portland cement contains chromate reducer, which results in a content of water-soluble chrome (VI) of less than 0.0002 %. In case of improper storage (moisture ingress) or storage exceeding the recommended storage time, however, the contained chromate reducer may lose its effect prematurely and a sensitising effect of the cement/binder can occur upon skin contact.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
60 - 80	Calcium oxide
	CAS: 1305-78-8, EINECS/ELINCS: 215-138-9, Reg-No.: 01-2119475325-36-XXXX
	GHS/CLP: Eye Dam. 1: H318 - STOT SE 3: H335 - Skin Irrit. 2: H315
20 - 40	Cement, portland, chemicals
	CAS: 65997-15-1, EINECS/ELINCS: 266-043-4
	GHS/CLP: Skin Irrit. 2: H315 - STOT SE 3: H335 - Eye Dam. 1: H318 - Skin Sens. 1B: H317

Comment on component parts
The product contains chromate reducer, which results in a content of water-soluble chrome (VI) of less than 0.0002 %. In case of improper storage (moisture ingress) or storage exceeding the recommended storage time, however, the contained chromate reducer may lose its effect prematurely and a sensitising effect of the cement/binder can occur upon skin contact.
Content of crystalline respirable silica dust is < 0,1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Take off contaminated clothing and wash before reuse.

Inhalation
Ensure supply of fresh air.
Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

Skin contact
When in contact with the skin, clean with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

Eye contact
Consult a doctor immediately.
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Shield unaffected eye.

Ingestion
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
In the event of symptoms seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Risk of serious damage to eyes.
Irritant effects
Cough
Nose and throat pain
Stomachache.
Vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

All extinguishing media are suitable but method must take into account the surrounding area to minimize dispersion.

Extinguishing media that must not be used

Full water jet

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
In presence of water, the mixture creates a strongly alkaline reaction.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.

Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Avoid dust formation.
Wear suitable protective equipment. For personal protection see SECTION 8.
Use breathing apparatus if exposed to dust.
Remove persons to safety.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid production of dust.
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Provide vacuuming if dust raised.
Avoid spilling in enclosed areas.
Avoid the formation and deposition of dust.
Dust deposits that cannot be avoided must be taken up regularly.
Avoid contact with eyes and skin. Use personal protective equipment.

Take off contaminated clothing and wash before reuse.
Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Prevent penetration into the ground.
Keep only in original container.

Do not store together with oxidizing agents.
Do not store with alkalies.
Do not store together with acids.
Do not store together with metals.
Keep away from water.

Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place. Store in a dry place.
Protect from atmospheric moisture and water.
Protect from contamination.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (UK)

Substance
Calcium oxide
CAS: 1305-78-8, EINECS/ELINCS: 215-138-9, Reg-No.: 01-2119475325-36-XXXX
Long-term exposure: 2 mg/m³
Cement, portland, chemicals
CAS: 65997-15-1, EINECS/ELINCS: 266-043-4
Long-term exposure: 10 mg/m³, inhalable dust; respirable dust: TWA=4 mg/m³

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

Substance / EC LIMIT VALUES
Calcium oxide
CAS: 1305-78-8, EINECS/ELINCS: 215-138-9, Reg-No.: 01-2119475325-36-XXXX
Eight hours: 1 mg/m³, Respirable fraction.
Short-term (15-minute): 4 mg/m³

DNEL

Substance
Calcium oxide, CAS: 1305-78-8
Industrial, inhalative (dust), Long-term - local effects, 1 mg/m³
Industrial, inhalative (dust), Acute - local effects, 4 mg/m³
general population, inhalative (dust), Acute - local effects, 4 mg/m³
general population, inhalative (dust), Long-term - local effects, 1 mg/m³

PNEC

Substance
Calcium oxide, CAS: 1305-78-8
sewage treatment plants (STP), 2.27 mg/L
soil, 817.4 mg/kg soil dw
seawater, 0.24 mg/L
freshwater, 0.37 mg/L

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m³ particle inhalable; 1,25 mg/m³ particle respirable). Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. > 0.1 mm. Nitrile rubber, >480 min (EN 374-1/-2/-3). > 0.1 mm. Neoprene, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing (EN 340)
Other	Do not inhale dust. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Filtering half mask, class: FFP2 (DIN EN 149)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Form	powder
Color	grey
Odor	odourless
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	> 12 (20°C)
Boiling point or initial boiling point and boiling range [°C]	No information available.
Flash point [°C]	not applicable
Flammability	No information available.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	none
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm³]	ca. 3
Relative density	No information available.
Bulk density [kg/m³]	No information available.
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	not applicable
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactions with alkalies (lyes).
Reactions with metals.
Reactions with oxidizing agents.
Corrodes aluminium.
Exothermic reaction with:
Water
Acids

10.4 Conditions to avoid

Warming
Sensitive to moisture.
Water

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
Cement, portland, chemicals, CAS: 65997-15-1
LD50, oral, Rat, > 2000 mg/kg
Calcium oxide, CAS: 1305-78-8
LD50, oral, Rat, > 2000 mg/kg (OECD 425)

Acute dermal toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
Cement, portland, chemicals, CAS: 65997-15-1
LD50, dermal, Rabbit, > 2000 mg/kg

Acute inhalational toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
Cement, portland, chemicals, CAS: 65997-15-1
LC50, inhalative, Rat, > 5 g/m³
Calcium oxide, CAS: 1305-78-8
LC50, inhalative, Rat, 6.04 mg/L, OECD 436, 4h

Serious eye damage/irritation Risk of serious damage to eyes.
Calculation method

Substance
Cement, portland, chemicals, CAS: 65997-15-1
Studie in vitro, corrosive, Irritation index=128,
Calcium oxide, CAS: 1305-78-8
Eye, Rabbit, OECD 405, Causes serious eye damage.

Skin corrosion/irritation Irritant
Calculation method

Substance
Cement, portland, chemicals, CAS: 65997-15-1
reizend
Calcium oxide, CAS: 1305-78-8
dermal, Rabbit, OECD 404, irritant

Respiratory or skin sensitisation contains < 2ppm Chromium VI
Not sensitizing with proper storage (SECTION 2.3).
Based on the available information, the classification criteria are not fulfilled.

Substance
Calcium oxide, CAS: 1305-78-8
dermal, non-sensitizing

Specific target organ toxicity — single exposure May cause respiratory irritation.
Calculation method

Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.

Substance
Calcium oxide, CAS: 1305-78-8
NOAEC, inhalative, Rat, 107 mg/m³, no adverse effect observed

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

- Fertility

Substance
Calcium oxide, CAS: 1305-78-8
NOAEL, oral, mouse, 440 mg/kg bw/day, no adverse effect observed

- Development

Substance
Calcium oxide, CAS: 1305-78-8
NOAEL, oral, mouse, 440 mg/kg bw/day, no adverse effect observed

Carcinogenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Calcium oxide, CAS: 1305-78-8
NOAEL, oral, Rat, 391 mg/kg bw/day, Study, no adverse effect observed

Aspiration hazard Based on the available information, the classification criteria are not fulfilled.

General remarks Some individuals may develop eczema upon exposure to wet cement dust, caused either by the high pH which induces irritant contact dermatitis after prolonged contact, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis.

Toxicological data of complete product are not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

11.2.2 Other information none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Calcium oxide, CAS: 1305-78-8
LC50, (14d), Invertebrates, 53.1 mg/L
EC50, (72h), Algae, 184.6 mg/L
EC50, (48h), Invertebrates, 49.1 mg/L
NOEC, (14d), Invertebrates, 32 mg/L
NOEC, (48h), Invertebrates, 33.3 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	The methods for determining the boilogical degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Harmful effect due to pH shift.
Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 170106*
101314
170101

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains ≥ 0.1% of substances with the following restrictions. 75
	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions.
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (UK):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people.
- VOC (2010/75/CE)	0%

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H318 Causes serious eye damage.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Modified position

none