

KUBATEC BMT AG
9491 Ruggell

Date printed 08.05.2023, Revision 08.05.2023

Version 1.0

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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

1-800-222-1222 Poison Help (24/7/365)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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 classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2012)

Hazard pictograms



Signal word

DANGER

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/regional/national/international regulation.

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2.3 Other hazards**Human health dangers**Contains no ingredients with endocrine-disrupting properties ($\geq 0,1\%$).**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.

Contains no ingredients with endocrine-disrupting properties ($\geq 0,1\%$).**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
20 - 40	Cement, portland, chemicals
	CAS: 65997-15-1

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.

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.

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.

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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.

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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 (US)

Substance
Calcium oxide
CAS: 1305-78-8
Long-term exposure: 2 mg/m ³ , NIOSH, OSHA PEL: 5 mg/m ³
Cement, portland, chemicals
CAS: 65997-15-1
Long-term exposure: 1 mg/m ³ , Respirable Particulate Matter (containing no asbestor and < 1% crystalline silica), ACGIH

DNEL

Substance
Calcium oxide, CAS: 1305-78-8
Industrial, inhalative (dust), Long-term - local effects, 1 mg/m ³
Industrial, inhalative (dust), Acute - local effects, 4 mg/m ³
general population, inhalative (dust), Acute - local effects, 4 mg/m ³
general population, inhalative (dust), Long-term - local effects, 1 mg/m ³

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

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8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. To pay attention to dust limit value (ACGIH-2011: 10 mg/m ³ particle inhalable; 3 mg/m ³ 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) 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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid
Form	powder
Color	grey
Odor	odorless
Odor threshold	No information available.
pH-value	Not applicable
pH-value [1%]	> 12 (20°C)
Boiling point [°C]	No information available.
Flash point [°C]	Not applicable
Flammability	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Oxidizing properties	None
Vapor 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]	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 alkalis (lyes).
Reactions with metals.
Reactions with oxidizing agents.
Corrodes aluminium.
Exothermic reaction with:
Water.
Acids

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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.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product
Based on the information available, the classification criteria have not been 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 information available, the classification criteria have not been fulfilled.
Substance
Cement, portland, chemicals, CAS: 65997-15-1
LD50, dermal, Rabbit, > 2000 mg/kg

Acute inhalational toxicity

Product
Based on the information available, the classification criteria have not been fulfilled.
Substance
Cement, portland, chemicals, CAS: 65997-15-1
LC50, inhalative, Rat, > 5 g/m ³
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 information available, the classification criteria have not been fulfilled.

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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 information available, the classification criteria have not been fulfilled.

Substance
Calcium oxide, CAS: 1305-78-8
NOAEC, inhalative, Rat, 107 mg/m ³ , no adverse effect observed

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

Reproduction toxicity Based on the information available, the classification criteria have not been 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 information available, the classification criteria have not been 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 information available, the classification criteria have not been 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.

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

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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 biological 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

Contains no ingredients with endocrine-disrupting properties ($\geq 0,1\%$).

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

Product

Coordinate disposal with the authorities if necessary.

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

RCRA Hazard Class (40CFR 261)

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

SECTION 14: Transport

14.1 UN 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

DOT Road Shipment Information (49 CFR)

Not applicable

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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"

DOT Road Shipment Information (49 CFR) Not applicable

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

DOT Road Shipment Information (49 CFR) 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

DOT Road Shipment Information (49 CFR) Not applicable

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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

DOT Road Shipment Information (49
CFR) No

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

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

29 CFR 1910.1200-HCS 2012, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65

- SARA, 302

This product does not contain any ingredients regulated under this list.

- SARA, 311

Serious eye damage

Skin Irritation

Specific target organ toxicity (single or repeated exposure)

- SARA, 313

Chromium (hexavalent compounds): <2 ppm

- CA Proposition 65

WARNING: This product can expose you to chemicals including "<2 ppm Chromium (hexavalent compounds)", which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov."



WARNING: This product can expose you to chemicals including "<0,1% Silica, crystalline (airborne particles of respirable size); <0,1% Chromium (hexavalent compounds)", which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

- TSCA

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.

- FDA

No information available.

American Conference of Governmental Industrial Hygienists - ACGIH

A2: < 0.1% Quartz (crystalline silica)

A4: Portland Cement

International Agency for Research on Cancer IARC

<0.1% Silica dust, crystalline, in the form of quartz or cristobalite

<2 ppm Chromium (VI) compounds

National Toxicology Program - NTP

<0.1% Silica, Crystalline (Respirable Size)

<2 ppm Chromium Hexavalent Compounds

HAP-VOC

HAP's-content: <2 ppm Chromium Compounds

VOC-content: 0%

Transport-regulations

DOT-Classification, ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)

15.2 Chemical safety assessment

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

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SECTION 16: Other information**16.1 Abbreviations and acronyms:**

ACGIH = American Conference of Governmental Industrial Hygienists;
 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;
 CAS = Chemical Abstracts Service;
 CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
 CFR = Code of Federal Regulations;
 CPR = Controlled Products Regulations;
 DMEL = Derived Minimum Effect Level;
 DNEL = Derived No Effect Level;
 DOT = Department of Transportation;
 EC50 = Median effective concentration;
 EPA = Environmental Protection Agency;
 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;
 IARC = International Agency of Research on Cancer;
 IATA = International Air Transport Association;
 TSCA = Toxic Substance Control Act;
 HMIS = Hazardous Materials Identification System;
 NFPA = National Fire Protection Association;
 NIOSH = National Institute for Occupational Safety and Health;
 OSHA = Occupational Safety and Health Administration;
 LC50 = Lethal concentration, 50%;
 LD50 = Median lethal dose, 50%;
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
 PBT = Persistent, Bioaccumulative and Toxic substance;
 PNEC = Predicted No-Effect Concentration;
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
 SARA = Superfund Amendments and Reauthorization Act;
 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;

16.2 Ratings

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NFPA Ratings



TOP, FLAMMABILITY: 0 - Minimal Hazard

LEFT, HEALTH: 3 - Severe Hazard

RIGHT, REACTIVITY: 1 - Slight Hazard

BOTTOM, SPECIAL NOTICE: -

HMIS Ratings

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X

3 - Severe Hazard

0 - Minimal Hazard

1 - Slight Hazard

X - Personal protection rating to be supplied by user depending on use conditions

PERSONAL PROTECTION:

A - Safety Glasses

B - Safety Glasses and Gloves

C - Safety Glasses, Gloves and Protection Apron

D - Face Shield, Gloves and Protection Apron

E - Safety Glasses, Gloves and Dust Respirator

F - Safety Glasses, Gloves, Protection Apron and Dust Respirator

G - Safety Glasses, Gloves and Vapor Respirator.

H - Splash Goggles, Gloves, Protection Apron and Vapor Respirator.

I - Safety Glasses, Gloves, Dust Respirator and Vapor Respirator.

J - Splash Goggles, Gloves, Protection Apron, Dust Respirator and Vapor Respirator.

K - Airline Mask or Hood, Gloves, Full Suit and Boots.

X - Personal protection rating to be supplied by user depending on use conditions

Modified position

None

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