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

1.1. Product identifier

VELOSIT Mortar and Cement (PC 221)

Further trade names / Item numbers

VELOSIT PC 221

UFI (EU): 97UD-4STW-3FCV-K9R3

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

Use of the substance/mixture

Building material

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	VELOSIT GmbH & Co.KG	
Street:	Industriepark 7	
Place:	D-32805 Horn-Bad Meinberg	
Telephone:	+49 5233-9517-300	Telefax: +49 5233-9517-301
E-mail:	info@velosit.de	
Internet:	www.velosit.de	
Responsible Department:	Product safety	

1.4. Emergency telephone number:

+49 5233-9517-300 (Mo.-Fr.: 8.00-16.00h)

Further Information

Emergency telephone number:
Austria (AT): Vergiftungsinformationszentrale Wien: +43 1 406 43 43
Belgium (BE): Centre Antipoisons: +32 70 245245

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Portland cement
CSA clinker

Signal word: Danger

Pictograms:



Hazard statements

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

Precautionary statements

P261	Avoid breathing dust.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If the product is available for everybody, additionally:
P102	Keep out of reach of children.
P501	Dispose of waste according to applicable legislation.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The mixture does not contain substances ≥ 0.1% of substances that have endocrine disrupting properties according to Regulation (EC) No. 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

The product contains chromate reducing agent. As a result, the cement/binder contains less than 0.0002% of water-soluble Chromium (VI). If the storage conditions are not appropriate (exposure to humidity) or the storage period is exceeded, the effectiveness of the present reducing agent can diminish prematurely, and the cement/binder can become skin sensitizing (H317 or EUH203, respectively). Monitoring procedure e.g. DIN EN 196-10

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Cement, binder, aggregates, flux agents, additives

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
14808-60-7	Quartz (SiO2)			40 - 45 %
	238-878-4			
	Occupational exposure limit value according to Regulation (EU) 2019/130			
65997-15-1	Portland cement			30 - 40 %
	266-043-4			
	Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H315 H318 H335			
65997-16-2	Cement, alumina, chemicals			≤ 5 %
	266-045-5		01-2119989490-26	
	Skin Irrit. 2, Eye Dam. 1; H315 H318			
65997-15-1	calcium sulfoaluminate clinker (CSA clinker)			3 - < 5 %
	934-133-9			
	Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1B, STOT SE 3; H315 H318 H317 H335			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
65997-15-1	266-043-4	Portland cement	30 - 40 %
	inhalation: LC50 > 5 mg/l (dusts or mists); dermal: LD50 > 2000 mg/kg		

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
65997-16-2	266-045-5	Cement, alumina, chemicals	≤ 5 %
	inhalation: LC50 = 7.6 mg/l (dusts or mists); dermal: LD50 > 2000 mg/kg; oral: LD50 > 2000 mg/kg		

Further Information

Portland cement, CSA clinker and quartz sand are exempt from the registration requirement in accordance with Article 2.7(b) and Annex V.10 of Regulation (EC) No 1907/2006 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice.
The product develops an alkaline pH value with moisture and can cause irritation.

After inhalation

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

Wash with plenty of water and soap. In case of skin irritation, consult a physician.

After contact with eyes

Do not subject to friction. After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a doctor if you feel unwell. If medical advice is needed, have product container or label at hand.

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

May damage the eye-cornea. Irritation to respiratory tract, skin, mucosa. May cause dermatitis.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Not combustible

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Use water spray jet to protect personnel and to cool endangered containers.

Additional information

Knock down dust with water spray jet. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically. Avoid dust formation. Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Use approved industrial vacuum cleaner for cleaning up.

Other information

Provide adequate ventilation.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Ensure adequate ventilation of the storage area. Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. The product is hygroscopic.

Further information on storage conditions

Recommended storage temperature: room temperature

7.3. Specific end use(s)

Cement

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
1317-65-3	Calcium carbonate, inhalable dust	-	10		TWA (8 h)	WEL
1317-65-3	Calcium carbonate, respirable	-	4		TWA (8 h)	WEL
65997-15-1	Portland cement, inhalable dust	-	10		TWA (8 h)	WEL
65997-15-1	Portland cement, respirable dust	-	4		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
65997-16-2	Cement, alumina, chemicals			
Worker DNEL, long-term		inhalation	systemic	2.5 mg/m³
Worker DNEL, acute		inhalation	systemic	5 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
65997-16-2	Cement, alumina, chemicals	
Freshwater		260 mg/l
Microorganisms in sewage treatment plants (STP)		10 mg/l

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses according to EN166

Hand protection

Tested protective gloves must be worn (EN 374).
Required properties: alkali-resistant, abrasion-resistant, waterproof
Recommended material: CR (polychloroprene, chloroprene rubber), NBR (nitrile rubber), Butyl caoutchouc (butyl rubber), FKM (fluoro rubber), PVC (polyvinyl chloride)

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particle filter device (EN 143) recommended

Environmental exposure controls

Water: Exposure may lead to an increase in the pH value. Ecotoxicological effects may occur if the pH value exceeds 9.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid: powder
Colour:	grey
Odour:	odourless
Melting point/freezing point:	> 1000 °C
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	11-13.5 (water-solid ratio = 1:2)
Viscosity / kinematic:	not applicable
Water solubility (at 20 °C):	reacts with water

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	2.75 - 3.2 g/cm³
Bulk density (at 20 °C):	0.9 - 1.5 kg/m³
Relative vapour density:	not determined
Particle characteristics:	average particle size: 5 - 30 µm

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not explosive.

Oxidizing properties

The product is not oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined

Further Information

The product is hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with water liberates silicate hydrate and calcium hydroxide.
After curing no reactivity

10.2. Chemical stability

The product is stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Humidity, water

10.5. Incompatible materials

Base metals (aluminium, zinc, tin, copper and their alloys)

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on hazard classes

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
65997-15-1	Portland cement				
	dermal	LD50 > 2000 mg/kg	Rabbit	literature value	Limit test
	inhalation (4 h) dust/mist	LC50 > 5 mg/l	Rat	literature value	TNO report V8801/02

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
65997-16-2	Cement, alumina, chemicals					
	oral	LD50 mg/kg	> 2000	Rat	literature value	
	dermal	LD50 mg/kg	> 2000	Rat	literature value	
	inhalation (4 h) dust/mist	LC50 mg/l	7.6	Rat	literature value	

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (Portland cement; CSA clinker)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Other information

The product develops an alkaline pH value with moisture and can cause irritation.
Once cured, the product poses no toxicity risks..

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h][d]	Species	Source	Method
65997-16-2	Cement, alumina, chemicals						
	Acute fish toxicity	LC50	> 100 mg/l	96 h	Danio rerio	IUCLID	OECD 203
	Acute algae toxicity	ErC50 mg/l	3.6	72 h	Desmodesmus subspicatus	IUCLID	OECD 201
	Acute crustacea toxicity	EC50 mg/l	5.4	48 h	Daphnia magna	IUCLID	OECD 202

12.2. Persistence and degradability

The product is inorganic. The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Not applicable. Product is inorganic.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Allow the product to cure and dispose of it as construction waste.

List of Wastes Code - residues/unused products

101306 WASTES FROM THERMAL PROCESSES; wastes from manufacture of cement, lime and plaster and articles and products made from them; particulates and dust (except 10 13 12 and 10 13 13)

List of Wastes Code - contaminated packaging

150105 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); composite packaging

Contaminated packaging

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

Other applicable information

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 47, Entry 75: not applicable

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

No restrictions under REACH; does not contain any substances from the SVHC list

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Adaptation to current regulations, guidelines and information

Abbreviations and acronyms

Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Skin Sens. 1B: Skin sensitisation, hazard category 1B
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%

EC50: Effective Concentration 50%
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
UVCB: Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
EC/EEC: European Community/European Economic Community
EU: European Union
M-factor: Multiplying factor
DGR: Dangerous Goods Regulations
TI: Technical Instructions

Classification for mixtures and used evaluation method

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

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

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Building material	PW, C	19	9b	-	-	-	-	Cement

LCS: Life cycle stages
SU: Sectors of use
PC: Product categories
PROC: Process categories
ERC: Environmental release categories
AC: Article categories
TF: Technical functions

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety

sheet.)