

Trade name: Bellatherm (REF 51105)

Current version : 2.0.3, issued: 19.10.2015

Replaced version: 2.0.2, issued: 16.12.2014

Region: GB

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

### 1.1 Product identifier

Trade name

**Bellatherm (REF 51105)**

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

**Relevant identified uses of the substance or mixture**

Manufacturing of dental prosthesis in a dental laboratory

**Uses advised against**

No data available.

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

**Address**

BEGO Bremer Goldschlägerei  
Wilh. Herbst GmbH & Co. KG  
Wilhelm-Herbst-Str. 1  
28359 Bremen

Telephone no. +49/ 421/ 2028 – 0

Fax no. +49/ 421/ 2028 – 115

e-mail msds@bego.com

**Information provided by / telephone**

Research & Development Department - Materials, alloys and ceramics; +49/ 421/ 2028 – 130 (Chief Development Officer alloys)

**Advice on Safety Data Sheet**

msds@bego.com

### 1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

STOT RE 2; H373i

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Hazard pictograms**



GHS08

**Signal word**

Warning

**Hazardous component(s) to be indicated on label:**

Quartz (SiO<sub>2</sub>)

**Hazard statements**

H373i May cause damage to organs through prolonged or repeated exposure if inhaled.

**Precautionary statements**

P260 Do not breathe dust.

P314 Get medical advice/attention if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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**2.3 Other hazards**

PBT assessment  
No data available.

vPvB assessment  
No data available.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Hazardous ingredients**

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	
1	<b>Quartz (SiO<sub>2</sub>)</b>			
	14808-60-7 238-878-4 -	STOT RE 2; H373i	> 50.00 - < 90.00	%-b.w.
2	<b>MAGNESIUM OXIDE</b>			
	1309-48-4 215-171-9 -	-	> 10.00 - < 30.00	%-b.w.
3	<b>Kaolin</b>			
	1332-58-7 310-194-1 -	-	> 5.00 - < 10.00	%-b.w.

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Route, target organ, concrete effect
1	H373i inhalational; -; -

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

If the patient is likely to become unconscious, place and transport in stable sideways position. In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

**After inhalation**

Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Call a doctor immediately.

**After skin contact**

In case of contact with skin wash off with water.

**After eye contact**

Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart and seek medical advice.

**After ingestion**

Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Call a doctor immediately.

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

No data available.

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

No data available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide; Extinguishing powder; Water spray jet; Foam

#### Unsuitable extinguishing media

High power water jet

### 5.2 Special hazards arising from the substance or mixture

No data available.

### 5.3 Advice for firefighters

Use self-contained breathing apparatus. Product itself does not burn. Adapt extinguisher and fire-fighting measures to fire in the environment. Wear protective clothing.

## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Avoid dust formation. Refer to protective measures listed in sections 7 and 8.

#### For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid raising dust. When picked up, treat material as prescribed under heading "Disposal considerations".

### 6.4 Reference to other sections

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Keep container tightly closed.

#### General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Do not inhale dust. Keep away from foodstuffs and beverages.

#### Advice on protection against fire and explosion

No special measures necessary.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels

Keep only in the original container.

#### Advice on storage assembly

Protect against humidity; Do not store together with: explosive substances

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## 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

No	Substance name	CAS no.	EC no.		
1	<b>Dust</b>				
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	total inhalable dust				
	TWA	10	mg/m <sup>3</sup>		
2	<b>MAGNESIUM OXIDE</b>	<b>1309-48-4</b>	<b>215-171-9</b>		
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	respirable dust				
	TWA	4	mg/m <sup>3</sup>		
2	<b>MAGNESIUM OXIDE</b>	<b>1309-48-4</b>	<b>215-171-9</b>		
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	Magnesium oxide				
	inhalable dust				
	Mg	TWA	10	mg/m <sup>3</sup>	
3	<b>Kaolin</b>	<b>1332-58-7</b>	<b>310-194-1</b>		
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	Magnesium oxide				
	fume and respirable dust				
	Mg	TWA	4	mg/m <sup>3</sup>	
3	<b>Kaolin</b>	<b>1332-58-7</b>	<b>310-194-1</b>		
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	Kaolin				
	respirable dust				
		TWA	2	mg/m <sup>3</sup>	
4	<b>ammonia, anhydrous</b>	<b>7664-41-7</b>	<b>231-635-3</b>		
	<b>List of approved workplace exposure limits (WELs) / EH40</b>				
	Ammonia				
	STEL	25	mg/m <sup>3</sup>	35	ml/m <sup>3</sup>
	TWA	18	mg/m <sup>3</sup>	25	ml/m <sup>3</sup>
4	<b>2000/39/EWG</b>				
	Ammonia, anhydrous				
	STEL	36	mg/m <sup>3</sup>	50	ml/m <sup>3</sup>
	TWA	14	mg/m <sup>3</sup>	20	ml/m <sup>3</sup>

### 8.2 Exposure controls

#### Appropriate engineering controls

No data available.

#### Personal protective equipment

##### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

##### Eye / face protection

Safety glasses with side protection shield (EN 166)

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**Hand protection**

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

**Other**

Normal chemical work clothing.

**Environmental exposure controls**

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form/Colour</b>			
Powder			
white			
<b>Odour</b>			
odourless			
<b>Odour threshold</b>			
No data available			
<b>pH value</b>			
Value	5	-	7
Concentration		80	% (water)

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<b>Boiling point / boiling range</b>
No data available

<b>Melting point / melting range</b>
No data available

<b>Decomposition point / decomposition range</b>
No data available

<b>Flash point</b>
No data available

<b>Auto-ignition temperature</b>
No data available

<b>Oxidising properties</b>
No data available

<b>Explosive properties</b>
No data available

<b>Flammability (solid, gas)</b>
No data available

<b>Lower flammability or explosive limits</b>
No data available

<b>Upper flammability or explosive limits</b>
No data available

<b>Vapour pressure</b>
No data available

<b>Vapour density</b>
No data available

<b>Evaporation rate</b>
No data available

<b>Relative density</b>
No data available

<b>Density</b>
No data available

<b>Bulk density</b>			
Value	1.2	-	1.5 g/cm <sup>3</sup>
Reference temperature			21 °C

<b>Solubility in water</b>
No data available

<b>Solubility(ies)</b>
No data available

<b>Partition coefficient: n-octanol/water</b>
No data available

<b>Viscosity</b>
No data available

## 9.2 Other information

<b>Other information</b>
The product is hygroscopic.
Product hardens with the addition of water.

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

### 10.4 Conditions to avoid

Protect from humid air and water.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

Under normal heating of the hardened ground-mass in the pre-heat furnace ammonia is released with a concentration of 1 percent by weight. Provide ventilation to exhaust vapours and conduct them directly to the outside.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>
No data available

<b>Acute dermal toxicity</b>
No data available

<b>Acute inhalational toxicity</b>
No data available

<b>Skin corrosion/irritation</b>
No data available

<b>Serious eye damage/irritation</b>
No data available

<b>Respiratory or skin sensitisation</b>
No data available

<b>Germ cell mutagenicity</b>
No data available

<b>Reproduction toxicity</b>
No data available

<b>Carcinogenicity</b>
No data available

<b>STOT-single exposure</b>
No data available

<b>STOT-repeated exposure</b>
No data available

<b>Aspiration hazard</b>
No data available

<b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b>
Contact with the skin and eyes may cause mechanical irritation. Inhalation of dusts may irritate the respiratory tract. Can cause silicosis.

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## SECTION 12: Ecological information

### 12.1 Toxicity

<b>Toxicity to fish (acute)</b>
No data available

<b>Toxicity to fish (chronic)</b>
No data available

<b>Toxicity to Daphnia (acute)</b>
No data available

<b>Toxicity to Daphnia (chronic)</b>
No data available

<b>Toxicity to algae (acute)</b>
No data available

<b>Toxicity to algae (chronic)</b>
No data available

<b>Bacteria toxicity</b>
No data available

### 12.2 Persistence and degradability

No data available.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

<b>Results of PBT and vPvB assessment</b>	
PBT assessment	No data available.
vPvB assessment	No data available.

### 12.6 Other adverse effects

No data available.

### 12.7 Other information

<b>Other information</b>
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.



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## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

### 14.2 Transport IMDG

The product is not subject to IMDG regulations.

### 14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 14.6 Special precautions for user

No data available.

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

Not relevant

## SECTION 15: Regulatory information

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

#### EU regulations

#### **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

#### **REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

#### **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

#### **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

#### **Other regulations**

Adhere to the national sanitary and occupational safety regulations when using this product.

### 15.2 Chemical safety assessment

No data available.

## SECTION 16: Other information

#### **Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

#### **Department issuing safety data sheet**

UMCO Umwelt Consult GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 183, Tel.: +49(40)79 02 36 300, Fax: +49(40)79 02 36 357, e-mail: umco@umco.de

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The security data sheet describes products with a view to the security requirements.  
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