

Trade name: Investment material for partial denture technique (REF 54344)

Current version : 2.0.5, issued: 11.02.2015

Replaced version: 2.0.4, issued: 08.01.2015

Region: GB

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

1.1 Product identifier

Trade name

Investment material for partial denture technique (REF 54344)

WiroFine (REF 54344 - 54345, 54348)

Wirovest (REF 51046, 51048, 51057)

Wirovest plus (REF 54821 - 54822)

WiroFast (REF 54834 - 54838)

Wiroplus (REF 50996, 50998, 51008)

Wiroplus S (REF 50248, 54353)

Wiroplus N (REF 51025 - 51027)

WiroSelect (REF 54866)

VarseoVest (REF 54873, 54874, 54875)

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

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

Email 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

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

Xn; R48/20

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GHS08

Signal word

Warning

Hazardous component(s) to be indicated on label:Quartz (SiO₂)
cristobalite**Hazard statements**

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

Precautionary statementsP260 Do not breathe dust.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.**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 67/548/EEC	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	Quartz (SiO₂)				
	14808-60-7 238-878-4 - -	Xn; R48/20	STOT RE 2; H373i	> 20.00 - < 60.00	%-b.w.
2	cristobalite				
	14464-46-1 238-455-4 - -	Xn; R48/20	STOT RE 2; H373i	> 5.00 - < 30.00	%-b.w.
3	MAGNESIUM OXIDE				
	1309-48-4 215-171-9 - -	-	-	> 10.00 - < 30.00	%-b.w.

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

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

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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.

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

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

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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

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	Dust		
	List of approved workplace exposure limits (WELs) / EH40		
	total inhalable dust		
	TWA	10	mg/m ³
	List of approved workplace exposure limits (WELs) / EH40		
	respirable dust		
	TWA	4	mg/m ³
2	MAGNESIUM OXIDE	1309-48-4	215-171-9
	List of approved workplace exposure limits (WELs) / EH40		
	Magnesium oxide		
	inhalable dust		
	Mg		
	TWA	10	mg/m ³
	List of approved workplace exposure limits (WELs) / EH40		
	Magnesium oxide		
	fume and respirable dust		
	Mg		
	TWA	4	mg/m ³
3	ammonia, anhydrous	7664-41-7	231-635-3
	List of approved workplace exposure limits (WELs) / EH40		
	Ammonia		
	STEL	25	mg/m ³ 35 ml/m ³
	TWA	18	mg/m ³ 25 ml/m ³
	2000/39/EWG		
	Ammonia, anhydrous		
	STEL	36	mg/m ³ 50 ml/m ³
	TWA	14	mg/m ³ 20 ml/m ³

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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)

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

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

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No data available

Melting point / melting range

No data available

Decomposition point / decomposition range

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Oxidising properties

No data available

Explosive properties

No data available

Flammability (solid, gas)

No data available

Lower flammability or explosive limits

No data available

Upper flammability or explosive limits

No data available

Vapour pressure

No data available

Vapour density

No data available

Evaporation rate

No data available

Relative density

No data available

Density

No data available

Bulk density

Value	1.2	-	1.5	g/cm ³
Reference temperature			21	°C

Solubility in water

No data available

Solubility(ies)

No data available

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

9.2 Other information**Other information**

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

None, if handled according to order.

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

Acute oral toxicity

No data available

Acute dermal toxicity

No data available

Acute inhalational toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
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

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information
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 73/78 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.

Restriction of occupation

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

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks

Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

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

EC Directives 2000/39/EC, 2006/15/EC, 2009/16/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.

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Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R48/20

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Department issuing safety data sheet

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This information is based on our present state of knowledge and experience.

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

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.