

Trade name: Wirosil (component A)

Product no.: 51995/52001

Current version: 1.0.1, issued: 08.05.2012 Replaced version: 1.0.1, issued: 09.03.2012 Region: GB

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

### 1.1 Product identifier

Trade name

# Wirosil (component A)

# 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 - 0Fax no. +49/421/2028 - 115

### 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): +49/551/192 40 (Giftinformationszentrum Nord)

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

### **Classification information**

This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive (1999/45/EC; DPD)

### 2.2 Label elements

Not relevant

### 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

### **Chemical characterization**

polymethylvinylsiloxane and silicon (silicic acid) based mixture

### **Hazardous ingredients**

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.



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# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

#### **General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

### After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area.

### After skin contact

Wash off immediately with soap and water.

#### After eve 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

Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Let plenty of water be drunk in small gulps. Summon 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

Water spray jet; Foam; Carbon dioxide; extinguishing powder

### Unsuitable extinguishing media

Full water jet

# 5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide; amorphous silicic acid

# 5.3 Advice for firefighters

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

Ensure adequate ventilation. 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

 $\label{lem:contaminated} \ \text{Water / firefighting water separately.} \ Do \ not \ discharge \ into \ the \ drains/surface \ waters/groundwater.$ 

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

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). 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

No special measures necessary if stored and handled as prescribed.

### 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. Keep away from foodstuffs and beverages. Provide eye wash fountain in work area.

# 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Appropriate Material steel; plastic

### Advice on storage assembly

Do not store together with: explosive substances; strong oxidizing agents

### 7.3 Specific end use(s)

No data available.

# **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

No parameters available for monitoring.

### 8.2 Exposure controls

# Appropriate engineering controls

No data available.

# Personal protective equipment

# Respiratory protection

Not necessary.

### Eye / face protection

Safety glasses (EN 166)

### **Hand protection**

In case of intensive contact, wear protective gloves (EN 374). 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	
liquid, viscous	
white	

Odoui
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odourless



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Odour threshold  No data available			
pH value			
No data available			
Boiling point / boiling range No data available			
Melting point / melting range			
No data available			
<b>Decomposition point / decomposition range</b> Value	>	200	°C
Flash point			
Value Method	> ASTM D 56	200	°C
Ignition temperature			
Value	>	400	°C
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			
Value Reference temperature	<	0,01 20	kPa °C
Vapour density No data available			
Evaporation rate  No data available			
Relative density			
No data available			
<b>Density</b> Value		1,05	g/cm <sup>3</sup>
Reference temperature		25	°C
Solubility in water	1		
Remarks	insoluble		
Solubility(ies) Remarks	Partially soluble in	n organic	solvents.
Partition coefficient: n-octanol/water	17 artially soluble II	. organic	
No data available			
Viscosity			
Value Type	appr. dynamic	5000	mPa*s



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#### Other information 9.2

# Other information

No data available.

# SECTION 10: Stability and reactivity

# Reactivity

No data available.

# 10.2 Chemical stability

No data available.

# 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

None, if handled according to order.

### 10.5 Incompatible materials

strong oxidizing agents

# 10.6 Hazardous decomposition products

In case of fire the following can be released: amorphous silicic acid

# **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.



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# **SECTION 12: Ecological information**

# 12.1 Toxicity

Fish toxicity	
No data available	

# Daphnia toxicity

No data available

# Algae toxicity

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	

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.



Trade name: Wirosil (component A)

Product no.: 51995/52001

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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.

# 14.6 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

### 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. 99/45/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, 2009/161/EC

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

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.



Trade name: Wirosil (component B)

Product no.: 52001/51995

Current version: 1.0.1, issued: 08.05.2012 Region: 1.0.1, issued: 09.03.2012 Region: GB

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

### 1.1 Product identifier

Trade name

# Wirosil (component B)

# 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 - 0Fax no. +49/421/2028 - 115

### 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): +49/551/192 40 (Giftinformationszentrum Nord)

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

### **Classification information**

This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive (1999/45/EC; DPD)

### 2.2 Label elements

Not relevant

### 2.3 Other hazards

Contains Si-H Product, may evolve hydrogen (extremely flammable gas) on contact with acids and bases.

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

### **Chemical characterization**

polyorganosiloxane based mixture

### **Hazardous ingredients**

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.



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# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

### **General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

### After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area.

### After skin contact

Wash off immediately with soap and water.

#### After eve 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

Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Let plenty of water be drunk in small gulps. Summon 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

Foam; Carbon dioxide

### Unsuitable extinguishing media

Full water jet; alkaline extinguishing powder

# 5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide; amorphous silicic acid

### 5.3 Advice for firefighters

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

Ensure adequate ventilation. Keep away sources of ignition. 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

 $\label{lem:contaminated} \begin{tabular}{ll} Collect contaminated water / firefighting water separately. Do not discharge into the drains/surface waters/groundwater. \end{tabular}$ 

# 6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). 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

Ensure adequate ventilation.

### 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. Keep away from foodstuffs and beverages. Provide eye wash fountain in work area.

# Advice on protection against fire and explosion

Product may split off hydrogen. May form explosive mixtures in partially empty containers. Keep away from sources of heat and ignition.

# 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 (with safety valve). Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### Advice on storage assembly

Do not store together with: explosive substances; strong oxidizing agents; Alcalies; Bases

### 7.3 Specific end use(s)

No data available.

# **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

No parameters available for monitoring.

### 8.2 Exposure controls

# Appropriate engineering controls

No data available.

# Personal protective equipment

# Respiratory protection

Not necessary.

### Eye / face protection

Safety glasses (EN 166)

### Hand protection

In case of intensive contact, wear protective gloves (EN 374). 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	
liquid, viscous	
blue	

Oa	our

odourless



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Odour threshold  No data available			
pH value No data available			
Boiling point / boiling range No data available			
Melting point / melting range No data available			
<b>Decomposition point / decomposition range</b> Value	>	200	°C
Flash point			
Value Method	> ASTM D 56	200	°C
Ignition temperature Value	>	400	°C
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			
Value Reference temperature	<	0,01 20	kPa °C
Vapour density No data available			
Evaporation rate No data available			
Relative density No data available			
Density			
Value Reference temperature		0,99 25	g/cm <sup>3</sup> °C
Solubility in water			
Remarks	insoluble		
Solubility(ies)			
Remarks	Partially soluble in	organic	solvents.
Partition coefficient: n-octanol/water			
No data available			
Viscosity			
Value	appr. dynamic	3000	mPa*s
Туре	Layriaillic		



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#### 9.2 Other information

# Other information

No data available.

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

No data available.

# 10.2 Chemical stability

No data available.

### 10.3 Possibility of hazardous reactions

Formation of hydrogen gas upon contact with materials to avoid. Explosion hazard.

# 10.4 Conditions to avoid

Reactions with strong acids and alkalies.

### 10.5 Incompatible materials

strong oxidizing agents; Alcalis; Acids; Metal salts; metalliferous substances

### 10.6 Hazardous decomposition products

In case of fire the following can be released: amorphous silicic acid; reacts with alkalis and acids under formation of hydrogen.

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

Acuto	aral	toxicity	
ACILIE	OLAI	IC) X IC:II V	

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.



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# **SECTION 12: Ecological information**

### 12.1 Toxicity

Fish toxicity	
No data available	

# Daphnia toxicity

No data available

# Algae toxicity

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.

# 14.6 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

### 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. 99/45/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, 2009/161/EC

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

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.