

**Trade name:** Minoxyd**Product no.:** 52530**Current version :** 1.0.2, issued: 08.05.2012**Replaced version:** 1.0.2, issued: 09.03.2012**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**Minoxyd****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

**Information provided by / telephone**

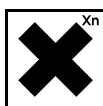
Research &amp; Development Department - Materials, alloys and ceramics; +49/ 421/ 2028 – 130 (Chief Development Officer alloys)

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

Xn; R22

**2.2 Label elements****Labelling according to Directive 1999/45/EC****Hazard symbols**

Harmful

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

potassium difluorodihydroxyborate(1-)

**R phrases**

22 Harmful if swallowed.

**S phrases**7 Keep container tightly closed.  
46 If swallowed, seek medical advice immediately and show this container or label.  
60 This material and its container must be disposed of as hazardous waste.  
37 Wear suitable gloves.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
23 Do not breathe vapour.

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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****Chemical characterization**

Mixture (preparation)

**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Concentration %-b.w.
1	potassium difluorodihydroxyborate(1-)		
	85392-66-1 286-925-2 - -	Xn; R22	> 70,00 - < 90,00 %-b.w.

Full Text for all R-phrases: pls. see section 16

**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 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. Let plenty of water be drunk in small gulps. Summon a doctor immediately. Do not induce vomiting.

**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**

Full water jet

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

In the event of fire, the following can be released: Hydrogen fluoride (HF); Hydrogen

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**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**

Avoid contact with skin, eyes and clothing. 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. 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**

Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far as possible by the state of the art.

**General protective and hygiene measures**

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

**Advice on protection against fire and explosion**

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. Protect from heat and direct sunlight.

**Recommended storage temperature**

Value 5 - 30 °C

**Requirements for storage rooms and vessels**

Keep only in the original container.

Inappropriate material aluminium; zinc; lead

**Advice on storage assembly**

Do not store together with: strong oxidizing agents; 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	potassium difluorodihydroxyborate(1-)	85392-66-1	286-925-2
	2000/39/EWG		
	Fluorides, inorganic		
	TWA	2,5	mg/m <sup>3</sup>

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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, aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

#### 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

<b>Form/Colour</b>			
Pasty/solid			
brown			
<b>Odour</b>			
odourless			
<b>Odour threshold</b>			
No data available			
<b>pH value</b>			
Value	5,5		
Reference temperature	20	°C	
Concentration	10	g/l	
<b>Boiling point / boiling range</b>			
Value	110	°C	
<b>Melting point / melting range</b>			
Value	500	°C	
<b>Decomposition point / decomposition range</b>			
No data available			
<b>Flash point</b>			
Not applicable			

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<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>	
Value	1,6 g/ml
<b>Solubility in water</b>	
Value	500 g/l
<b>Solubility(ies)</b>	
No data available	
<b>Partition coefficient: n-octanol/water</b>	
No data available	
<b>Viscosity</b>	
Value	150 - 250 mPa*s
Reference temperature	20 °C
Type	dynamic

## 9.2 Other information

<b>Other information</b>
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

No data available.

### 10.4 Conditions to avoid

Protect from sun. Beware of drying.

### 10.5 Incompatible materials

Acids; sulfuric acid

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**10.6 Hazardous decomposition products**

In case of fire the following can be released: Hydrogen fluoride; Hydrogen

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

<b>Acute oral toxicity</b>	
LD50	744 mg/kg
Species	rat
<b>Acute dermal toxicity</b>	
No data available	
<b>Acute inhalational toxicity</b>	
No data available	
<b>Skin corrosion/irritation</b>	
Species	rabbit
Evaluation	non-irritant
<b>Serious eye damage/irritation</b>	
Species	rabbit
Evaluation	non-irritant
<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>	
Harmful if swallowed.	

**SECTION 12: Ecological information**

**12.1 Toxicity**

<b>Fish toxicity</b>	
LC50	750 mg/l
Duration of exposure	96 h
Species	Brachydanio rerio
Reference substance	CAS 85392-66-1

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

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

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

## 12.2 Persistence and degradability

<b>Biodegradability</b>	
Remarks	The methods for the assessment of the biodegradability cannot be applied for inorganic substances.

## 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.

## 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

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## 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**

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