

Trade name: Minoxyd (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**Minoxyd (REF 52530)****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 &amp; 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 &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 (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)**

Acute Tox. 4; H302

Repr. 2; H361d

**Classification information**

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS07



GHS08

**Signal word**

Warning

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

Trade name: Minoxyd (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

potassium difluorodihydroxyborate(1-)

**Hazard statement(s)**

H302 Harmful if swallowed.  
H361d Suspected of damaging the unborn child.

**Precautionary statement(s)**

P201 Obtain special instructions before use.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P501 Dispose of contents/container to a facility in accordance with local and national regulations.

**2.3 Other hazards**

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	potassium difluorodihydroxyborate(1-)		
	85392-66-1 286-925-2 - 01-2119980037-35	Acute Tox. 4; H302 Repr. 2; H361d	>= 50.00 - < 70.00 wt%

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

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	Repr. 2; H361d: C >= 7.1%	-	-

**Acute toxicity estimate (ATE) values**

No	oral	dermal	inhalative
1	608 mg/kg bodyweight		

**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. Consult a doctor if skin irritation persists.

**After eye contact**

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). In case of irritation consult an ophthalmologist.

**After ingestion**

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

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

No data available.

Trade name: Minoxid (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

**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**

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

**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.

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

Take up mechanically. When collected, handle material as described under the section 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**

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

**General protective and hygiene measures**

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Remove soiled or soaked clothing immediately. Avoid contact with eyes and skin. Do not inhale dust.

**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

Trade name: Minoxid (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

**Incompatible products**

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****DNEL, DMEL and PNEC values****DNEL values (worker)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	potassium difluorodihydroxyborate(1-)			85392-66-1 286-925-2	
	dermal	Long term (chronic)	systemic	500.1	mg/kg/day
	inhalative	Long term (chronic)	systemic	10.95	mg/m <sup>3</sup>
	inhalative	Long term (chronic)	local	18.4	mg/m <sup>3</sup>

**DNEL value (consumer)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	potassium difluorodihydroxyborate(1-)			85392-66-1 286-925-2	
	oral	Long term (chronic)	systemic	1.46	mg/kg/day
	oral	Short term (acut)	systemic	1.46	mg/kg/day
	dermal	Long term (chronic)	systemic	250.39	mg/kg/day
	inhalative	Long term (chronic)	systemic	5.11	mg/m <sup>3</sup>
	inhalative	Long term (chronic)	local	18.4	mg/m <sup>3</sup>
	inhalative	Short term (acut)	local	18.4	mg/m <sup>3</sup>

**PNEC values**

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	potassium difluorodihydroxyborate(1-)		85392-66-1 286-925-2	
	water	fresh water	2.02	mg/L
	water	marine water	2.02	mg/L
	water	Aqua intermittent	13.7	mg/L
	soil	-	5.4	mg/kg dry weight
	sewage treatment plant	-	10	mg/L

**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**

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 workstation 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.

**Trade name:** Minoxid (REF 52530)

**Current version :** 5.0.1, issued: 26.03.2021

**Replaced version:** 5.0.0, issued: 24.08.2017

**Region:** GB

Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

**Other**

Chemical-resistant work clothes.

**Environmental exposure controls**

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>			
solid			
<b>Form/Colour</b>			
Pasty/solid			
brown			
<b>Odour</b>			
odourless			
<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/freezing point</b>			
Value	500	°C	
<b>Decomposition temperature</b>			
No data available			
<b>Flash point</b>			
Not applicable			
<b>Ignition temperature</b>			
No data available			
<b>Flammability</b>			
No data available			
<b>Lower explosion limit</b>			
No data available			
<b>Upper explosion limit</b>			
No data available			
<b>Vapour pressure</b>			
No data available			
<b>Relative vapour density</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</b>			
No data available			

Trade name: Minoxid (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

**Partition coefficient n-octanol/water (log value)**

No data available

**Viscosity**

Value	150	-	250	mPa*s
Reference temperature			20	°C
Type	dynamic			

**Particle characteristics**

No data available

**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**

No data available.

**10.4 Conditions to avoid**

Protect from sun. Beware of drying.

**10.5 Incompatible materials**

Acids; sulfuric acid

**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 hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity (result of the ATE calculation for the mixture)****No Product Name****1 Minoxid (REF 52530)**

ATE (Mixture)	925.22
Method	Calculation method according Regulation (EC) No 1272/2008, (CLP), annex I, part 3, section 3.1.3.6.

**Acute oral toxicity****No Substance name****CAS no.****EC no.****1 potassium difluorodihydroxyborate(1-)****85392-66-1****286-925-2**

LD50	608	mg/kg bodyweight
Species	rat (female)	
Method	OECD 401	
Source	ECHA	

**Acute dermal toxicity**

No data available

**Acute inhalational toxicity**

No data available

**Skin corrosion/irritation****No Substance name****CAS no.****EC no.****1 potassium difluorodihydroxyborate(1-)****85392-66-1****286-925-2**

Species	rabbit
---------	--------

Trade name: Minoxid (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

Method	OECD 404
Source	ECHA
Evaluation	non-irritant

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	potassium difluorodihydroxyborate(1-)	85392-66-1	286-925-2
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	non-irritant		

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
Harmful if swallowed.

## 11.2 Information on other hazards

### Endocrine disrupting properties

No data available.

### Other information

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	potassium difluorodihydroxyborate(1-)	85392-66-1	286-925-2
LC50		750	mg/l
Duration of exposure		96	h
Species	Danio rerio		
Method	OECD 203		
Source	ECHA		

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)

**Trade name:** Minoxid (REF 52530)

**Current version :** 5.0.1, issued: 26.03.2021

**Replaced version:** 5.0.0, issued: 24.08.2017

**Region:** GB

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

No data available.

## 12.6 Endocrine disrupting properties

No data available.

## 12.7 Other adverse effects

No data available.

## 12.8 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

Residues 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.

### 14.5 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 Maritime transport in bulk according to IMO instruments

Not relevant

## SECTION 15: Regulatory information



Trade name: Minoxyd (REF 52530)

Current version : 5.0.1, issued: 26.03.2021

Replaced version: 5.0.0, issued: 24.08.2017

Region: GB

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

### EU regulations

<b>Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)</b>			
The product contains following substance(s) that are considered being a substance subject to Authorisation) according to REACH regulation ((EC) 1907/2006) annex XIV:			
No	Substance name	CAS no.	EC no.
1	NONYLPHENOL, ETHOXYLATED	9016-45-9	500-024-6
<b>REACH candidate list of substances of very high concern (SVHC) for authorisation</b>			
The product contains following substance(s) meeting the criteria in Article 57 in association with Article 59 of the REACH regulation ((EC) 1907/2006) that are placed on the list of candidates considered for inclusion in annex XIV (substances subject to Authorisation).			
No	Substance name	CAS no.	EC no.
1	NONYLPHENOL, ETHOXYLATED	9016-45-9	500-024-6
<b>Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES</b>			
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.			
<b>Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances</b>			
This product is not subject to Part 1 or 2 of Annex I.			
<b>Other regulations</b>			
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.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

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 section.

### Creation of the safety data sheet

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Document protected by copyright. Alterations or reproductions require the express written permission of UMCO GmbH.

Prod-ID 621379