

Trade name: Minoxyd (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

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 & Co. KG
Wilhelm-Herbst-Str. 1
28359 Bremen

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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)**

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:

potassium difluorodihydroxyborate(1-)

Trade name: Minoxid (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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	%-b.w.

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%	-	-

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 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.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

Trade name: Minoxyd (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

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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 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 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

Advice on storage assembly

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

7.3 Specific end use(s)

No data available.

Trade name: Minoxid (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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-) 2000/39/EC	85392-66-1	286-925-2
	Fluorides, inorganic		
	TWA	2.5	mg/m ³

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 ³
	inhalative	Long term (chronic)	local	18.4	mg/m ³

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 (acute)	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 ³
	inhalative	Long term (chronic)	local	18.4	mg/m ³
	inhalative	Short term (acute)	local	18.4	mg/m ³

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)

Trade name: Minoxid (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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

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

Form/Colour			
Pasty/solid			
brown			
Odour			
odourless			
Odour threshold			
No data available			
pH value			
Value	5.5		
Reference temperature	20	°C	
Concentration	10	g/l	
Boiling point / boiling range			
Value	110	°C	
Melting point / melting range			
Value	500	°C	
Decomposition point / decomposition range			
No data available			
Flash point			
Not applicable			

Trade name: Minoxyd (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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	
Value	1.6 g/ml
Solubility in water	
Value	500 g/l
Solubility(ies)	
No data available	
Partition coefficient: n-octanol/water	
No data available	
Viscosity	
Value	150 - 250 mPa*s
Reference temperature	20 °C
Type	dynamic

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

Trade name: Minoxid (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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**

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		
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.	

Trade name: Minoxid (REF 52530)

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Region: GB

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)			
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

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.

Trade name: Minoxyd (REF 52530)

Current version : 5.0.0, issued: 24.08.2017

Replaced version: 4.0.0, issued: 20.04.2017

Region: GB

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)**

The product contains following substance(s) that are considered being a substance subject to Authorisation) according to REACH regulation ((EC) 1907/2006) annexe XIV:

No	Substance name	CAS no.	EC no.
1	NONYLPHENOL, ETHOXYLATED	9016-45-9	500-024-6

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

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 annexe XIV (substances subject to Authorisation).

No	Substance name	CAS no.	EC no.
1	NONYLPHENOL, ETHOXYLATED	9016-45-9	500-024-6

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.

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Replaced version: 4.0.0, issued: 20.04.2017

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Department issuing safety data sheet

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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.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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