

Trade name: Auromelt HF (REF 52525)**Current version :** 3.0.0, issued: 19.08.2021**Replaced version:** 2.0.0, issued: 28.04.2016**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

Auromelt HF (REF 52525)**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

Telephone no. +49/ 421/ 2028 – 0

Fax no. +49/ 421/ 2028 – 115

e-mail 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)**

Eye Irrit. 2; H319

Repr. 1B; H360FD

Skin Irrit. 2; H315

STOT SE 3; H335

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

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Danger

Hazardous component(s) to be indicated on label:

dipotassium tetraborate tetrahydrate

diboron trioxide

Hazard statement(s)

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H360FD May damage fertility. May damage the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.
 P261 Avoid breathing dust.
 P280 Wear protective gloves/protective clothing/eye protection.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P501 Dispose of contents/container to a facility in accordance with local and national regulations.

Supplemental label elements

"Restricted to professional users"

2.3 Other hazards

PBT assessment

The study does not need to be conducted according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

vPvB assessment

The study does not need to be conducted according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

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	dipotassium tetraborate tetrahydrate		
	12045-78-2 215-575-5 - -	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	< 100.00 wt%
2	diboron trioxide		
	1303-86-2 215-125-8 005-008-00-8 01-2119486655-24	Repr. 1B; H360FD	>= 5.00 - < 10.00 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)
2	-	Repr. 1B; H360FD: C >= 3.1%	-	-

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.

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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

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

Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person. Let plenty of water be drunk in small gulps. 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. Keep away from ignition sources. 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

Collect mechanically. Avoid raising dust. 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. Keep container tightly closed.

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General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Provide eye wash fountain in work area. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale dust. Store work clothing separately. Keep away from foodstuffs and beverages.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of 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. Keep under lock and key or accessible only to specialists or people who are authorized.

Requirements for storage rooms and vessels

Keep only in the original container.

Incompatible products

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

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		
	Dust respirable		
	WEL long-term (8-hr TWA reference period)	4	mg/m ³
	Comments	see Definition 44 "Dust"	
	List of approved workplace exposure limits (WELs) / EH40		
	Dust inhalable		
	WEL long-term (8-hr TWA reference period)	10	mg/m ³
	Comments	see Definition 44 "Dust"	
2	diboron trioxide	1303-86-2	215-125-8
	List of approved workplace exposure limits (WELs) / EH40		
	Diboron trioxide		
	WEL short-term (15 min reference period)	20	mg/m ³
	WEL long-term (8-hr TWA reference period)	10	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	diboron trioxide			1303-86-2 215-125-8	
	dermal	Long term (chronic)	systemic	220.6	mg/kg/day
	inhalative	Long term (chronic)	systemic	4.66	mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	diboron trioxide			1303-86-2 215-125-8	
	oral	Long term (chronic)	systemic	0.55	mg/kg/day
	oral	Short term (acute)	systemic	0.55	mg/kg/day
	dermal	Long term (chronic)	systemic	110.3	mg/kg/day

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	inhalative	Long term (chronic)	systemic	2.34	mg/m ³
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PNEC values

No	Substance name	CAS / EC no	
	ecological compartment	Type	Value
1	diboron trioxide		1303-86-2 215-125-8
	water	fresh water	2.9 mg/L
	water	marine water	2.9 mg/L
	water	Aqua intermittent	13.7 mg/L
	soil	-	5.7 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 formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Respirator P1

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.

Appropriate Material	Natural rubber, NR		
Material thickness	>=	0.6	
Breakthrough time	>=	480	min

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**

State of aggregation	solid
Form/Colour	solid white
Odour	odourless
pH value	No data available
Boiling point / boiling range	No data available
Melting point/freezing point	

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No data available

Decomposition temperature

No data available

Flash point

No data available

Ignition temperature

No data available

Flammability

No data available

Lower explosion limit

No data available

Upper explosion limit

No data available

Vapour pressure

No data available

Relative vapour density

No data available

Relative density

No data available

Density

No data available

Solubility

No data available

Partition coefficient n-octanol/water (log value)

No data available

Viscosity

No data available

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

Keep away sources of ignition. Protect from humid air and water.

10.5 Incompatible materials

Acids; acid halogenide; Water; Alkali metals; Halogenated hydrocarbons; hydrogen fluoride; Alkalis

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	diboron trioxide	1303-86-2	215-125-8
LD50	>	2600	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		

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	Substance name	CAS no.	EC no.
1	diboron trioxide	1303-86-2	215-125-8
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are met.		

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.

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 data available

Toxicity to fish (chronic)
No data available

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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

The study does not need to be conducted according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

vPvB assessment

The study does not need to be conducted according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 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

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

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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**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

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	diboron trioxide	1303-86-2	215-125-8

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

The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	diboron trioxide	1303-86-2	215-125-8	30

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

A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture.

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.

Alterations/supplements:

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