

**SAFETY DATA SHEET (EC 1907/2006)****BioGold AN  
BioGold Interaction****DeguDent**  
A Dentsply Company

Material no.		Version	1.3 / GB
Specification	163197	Revision date	01.12.2014
VA-Nr	01,699,502	Print Date	01.12.2014
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**1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name	BioGold AN BioGold Interaction
REACH Registration No.:	if available listed in Chapter. 3

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Relevant applications identified	For dental use only.
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**1.3. Details of the supplier of the safety data sheet**

Company	DeguDent GmbH Postfach 1364 D-63403 Hanau
Telephone	+49 (0)6181/59-5767
Telefax	+49 (0)6181/59-5879
Email address	SDB.Degudent-DE@dentsply.com

**1.4. Emergency telephone number**

Emergency information	+49 (0)180 / 23 24-555 (international)
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**2. Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not a hazardous mixture according to Regulation (EC) No 1272/2008.

**Classification as per Directive 67/548/EC or Directive 1999/45/EC**

In accordance with Directive 1999/45/EC, the product does not need to be classified nor labelled.

**2.2. Label elements****Labelling as per (EU) 1272/2008**

Statutory basis	Labelling not required according to EU-CLP Ordinance (1272/2008).
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**2.3. Other hazards**

Zinc oxide fumes is released during processing  
A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

**3. Composition/information on ingredients****Information on ingredients / Hazardous components as per EU-CLP Regulation (EC) No. 1272/2008**

<b>• Gold</b>	86.0%		
CAS-No.	7440-57-5	EC-No.	231-165-9
<b>• platinum</b>	11.0%		
CAS-No.	7440-06-4	EC-No.	231-116-1

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<b>• zinc</b>	1.5%		
CAS-No.	7440-66-6	EC-No.	231-175-3
<b>• rhodium</b>	0.7%		
CAS-No.	7440-16-6	EC-No.	231-125-0
<b>• Niobium</b>	< 1.0%		
CAS-No.	7440-03-1	EC-No.	231-113-5
<b>• Indium</b>	< 1.0%		
CAS-No.	7440-74-6	EC-No.	231-180-0
<b>• iron</b>	< 1.0%		
CAS-No.	7439-89-6	EC-No.	231-096-4
<b>• Iridium</b>	< 1.0%		
CAS-No.	7439-88-5	EC-No.	231-095-9

**Information on ingredients / Hazardous components as per Directive 67/548/EC or Directive 1999/45/EC**

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<b>• platinum</b>	11.0%		
CAS-No.	7440-06-4	EC-No.	231-116-1
<b>• zinc</b>	1.5%		
CAS-No.	7440-66-6	EC-No.	231-175-3
	F; R15, R17		
	N; R50/53		
<b>• rhodium</b>	0.7%		
CAS-No.	7440-16-6	EC-No.	231-125-0
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Texts of H phrases, see in Chapter 16  
See chapter 16 for text of risk phrases

**4. First aid measures****4.1. Description of first aid measures****Inhalation**

Dusts and vapours:  
Remove to fresh air.

**Eye contact**

Dusts and vapours:  
Rinse thoroughly with plenty of water keeping eyelid open.  
Consult an eye doctor (ophthalmologist).

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

None known

**Hazards**

None known

**4.3. Indication of any immediate medical attention and special treatment needed**

None known

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**5. Fire-fighting measures****5.1. Extinguishing media**

Suitable extinguishing media: special powder against metal fire  
quenching powder  
dry sand  
common salt

Unsuitable extinguishing media: Water  
carbon dioxide (CO<sub>2</sub>)

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

None known.

**5.3. Advice for firefighters**

Extinction measures are to be adjusted to the specific location.  
The product itself does not burn.  
Employ protective equipment commonly used in the event of fire.

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**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

No special measures are required.

**6.2. Environmental precautions**

No special environmental precautions required.

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

Use mechanical handling equipment.

**6.4. Reference to other sections**

Wear personal protective equipment; see section 8.  
Disposal considerations; see section 13.

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**7. Handling and storage****7.1. Precautions for safe handling**

In case of melting, soldering or grinding:  
Dusts and vapors: Do not inhale.  
Local ventilation.  
No special measures are necessary if properly handled.  
In case of dust or vapor: Wear personal safety equipment

**7.2. Conditions for safe storage, including any incompatibilities****Storage**

No special storage conditions required.

**German storage class**

13 - Non Combustible Solids

**7.3. Specific end use(s)**

We are unaware of any specific end uses which go beyond the data reported in Section 1.

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**8. Exposure controls/personal protection****8.1. Control parameters**

• platinum			
CAS-No.	7440-06-4	EC-No.	231-116-1
Control parameters	1 mg/m3		Time Weighted Average (TWA):(EU ELV)
	Indicative		
Control parameters	5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
• rhodium			
CAS-No.	7440-16-6	EC-No.	231-125-0
Control parameters	0.1 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
type of exposure	Fume and inhalable dust.		
Control parameters	0.3 mg/m3		Short Term Exposure Limit (STEL):(EH40 WEL)
type of exposure	Fume and inhalable dust.		
• Niobium			
CAS-No.	7440-03-1	EC-No.	231-113-5
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposure	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposure	Total inhalable dust.		
• Indium			
CAS-No.	7440-74-6	EC-No.	231-180-0
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposure	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposure	Total inhalable dust.		
Control parameters	0.1 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	0 ppm		Short Term Exposure Limit (STEL):(EH40 WEL)
	0.3 mg/m3		

**8.2. Exposure controls****Engineering measures**

Zinc oxide fumes is released during processing

In case of melting, soldering or grinding:

Adequate exhaustion / ventilation of the work site or machinery must be assured. Vacuuming of objects.

**Personal protective equipment****Respiratory protection**

If workplace exposure limit is exceeded apply Dust mask with P2 particle filter.

**Hand protection**

No special protective equipment required.

**Eye protection**

Safety glasses with side-shields

**Skin and body protection**

No particular measures required.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practices.

Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work.

Do not inhale smoke, dust, vapor.

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**9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	
Form	solid
Colour	yellow
Odour	odourless
Melting point/range	1040 - 1140 °C
Density	18.7 g/cm <sup>3</sup>
Autoinflammability	Not capable of spontaneous combustion or heating.

**9.2. Other information**

Other information	No further physicochemical data were determined.
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**10. Stability and reactivity****10.1. Reactivity**

no data available

**10.2. Chemical stability**

The product is chemically stable.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions	No dangerous reactions known.
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**10.4. Conditions to avoid**

No limitations

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**Decomposition products occurring when heated above melting temperature  
metallic vapors**11. Toxicological information****11.1. Information on toxicological effects**

Acute oral toxicity	no data available
Acute inhalation toxicity	no data available
Acute dermal toxicity	no data available
Skin irritation	no data available
Eye irritation	no data available
Sensitization	no data available
Repeated dose toxicity	no data available
Mutagenicity assessment	no data available

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Carcinogenicity	No data available
Toxicity to reproduction	No data available
Further information	No hazardous reactions are known if properly handled and stored.

**12. Ecological information****12.1. Toxicity**

*No ecotoxicological data is available for this product.*

**12.2. Persistence and degradability**

Biodegradability no data available

**12.3. Bioaccumulative potential**

Bioaccumulation no data available

**12.4. Mobility in soil**

Mobility The product is insoluble in water.  
No further information available

**12.5. Results of PBT and vPvB assessment**

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

**12.6. Other adverse effects**

Further Information Dusts and water-soluble forms of the alloy:  
Introduction into soil, natural water bodies or sewerage must be prevented.

**13. Disposal considerations****13.1. Waste treatment methods****Product**

Can be used after re-conditioning.

**14. Transport information**

**Not dangerous according to transport regulations.**

14.1. UN number:	--
14.2. UN proper shipping name:	--
14.3. Transport hazard class(es):	--
14.4. Packing group:	--
14.5. Environmental hazards:	--
14.6. Special precautions for user:	No

**15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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### National legislation

#### 15.2. Chemical safety assessment

Chemical safety assessment    No Chemical Safety Report as per Articles 2(8), 2(9) or 14 of the REACH Regulation is required for this product.

#### 16. Other information

##### Risk phrase (R phrase) texts

- **zinc**

R15	Contact with water liberates extremely flammable gases
R17	Spontaneously flammable in air.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Texts of the H-phrases

##### Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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**Legend**

<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>ADN</b>	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
<b>ASTM</b>	American Society for Testing and Materials
<b>ATP</b>	Adaptation to Technical Progress
<b>BCF</b>	Bioconcentration factor
<b>BetrSichV</b>	German Ordinance on Industrial Safety and Health
<b>c.c.</b>	closed cup
<b>CAS</b>	Chemical Abstract Services
<b>CESIO</b>	European Committee of Organic Surfactants and their Intermediates
<b>ChemG</b>	German Chemicals Act
<b>CMR</b>	carcinogenic-mutagenic-toxic for reproduction
<b>DIN</b>	German Institute for Standardization
<b>DMEL</b>	Derived minimum effect level
<b>DNEL</b>	Derived no effect level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>EC50</b>	half maximal effective concentration
<b>GefStoffV</b>	German Ordinance on Hazardous Substances
<b>GGVSEB</b>	German ordinance for road, rail and inland waterway transportation of dangerous goods
<b>GGVSee</b>	German ordinance for sea transportation of dangerous goods
<b>GLP</b>	Good Laboratory Practice
<b>GMO</b>	Genetic Modified Organism
<b>IATA</b>	International Air Transport Association
<b>ICAO</b>	International Civil Aviation Organization
<b>IMDG</b>	International Maritime Dangerous Goods
<b>ISO</b>	International Organization For Standardization
<b>LOAEL</b>	Lowest observed adverse effect level
<b>LOEL</b>	Lowest observed effect level
<b>NOAEL</b>	No observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>o. c.</b>	open cup
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>PBT</b>	Persistent, bioaccumulative, toxic
<b>PEC</b>	Predicted effect concentration
<b>PNEC</b>	Predicted no effect concentration
<b>REACH</b>	REACH registration
<b>RID</b>	Convention concerning International Carriage by Rail
<b>STOT</b>	Specific Target Organ Toxicity
<b>SVHC</b>	Substances of Very High Concern
<b>TA</b>	Technical Instructions
<b>TPR</b>	Third Party Representative (Art. 4)
<b>TRGS</b>	Technical Rules for Hazardous Substances
<b>VCi</b>	German chemical industry association
<b>vPvB</b>	very persistent, very bioaccumulative
<b>VOC</b>	volatile organic compounds
<b>VwVwS</b>	German Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes
<b>WGK</b>	Water Hazard Class
<b>WHO</b>	World Health Organization