

**SAFETY DATA SHEET (EC 1907/2006)****BiOcclus 4**

Material no.		Version	1.6 / GB
Specification	102713	Revision date	22.11.2011
VA-Nr	01628706	Print Date	02.12.2011
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A Dentsply Company

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name	BiOcclus 4
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
Emergency telephone number	+49 (0)180 / 23 24-555

Use of the Substance / Preparation For dental use only.

REACH Registration No.: if available listed in Chapter. 3

**2. HAZARDS IDENTIFICATION****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not a hazardous material according to the Directive (EEC) No. 1272/2008 .

**GHS-Labeling**

Statutory basis Labelling not required according to EU-CLP Ordinance (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.

**Other Hazards**

Zinc oxide fumes is released during processing

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Information on ingredients / Hazardous components As per EU-CLP Ordinance (EC) No. 1272/2008**

<b>• Gold</b>	85.8%		
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
<b>• rhodium</b>	0.7%		
CAS-No.	7440-16-6	EC-No.	231-125-0
<b>• zinc</b>	0.5%		
CAS-No.	7440-66-6	EC-No.	231-175-3
<b>• Indium</b>	1.7%		
CAS-No.	7440-74-6	EC-No.	231-180-0
<b>• Tantal</b>	0.3%		

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CAS-No.	7440-25-7	EC-No.	231-135-5
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**Information on ingredients / Hazardous components as per Directive 67/548/EC or Directive 1999/45/EC**

• <b>Gold</b>	85.8%
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
• <b>rhodium</b>	0.7%
CAS-No. 7440-16-6	EC-No. 231-125-0
• <b>zinc</b>	0.5%
CAS-No. 7440-66-6	EC-No. 231-175-3
	F; R15, R17 N; R50/53
• <b>Indium</b>	1.7%
CAS-No. 7440-74-6	EC-No. 231-180-0
• <b>Tantal</b>	0.3%
CAS-No. 7440-25-7	EC-No. 231-135-5

Texts of H phrases, see in Chapter 16  
See chapter 16 for text of risk phrases

**4. 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 ophthalmologist.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

special powder against metal fire, quenching powder, dry sand, common salt

**Unsuitable extinguishing media**

water, carbon dioxide (CO<sub>2</sub>)

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

The product itself does not burn.

**Special protective equipment for fire-fighters**

Employ protective equipment commonly used in the event of fire.

**Advice for firefighters**

Adapt fire extinguishing methods to site.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

No special precautions required.

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

Use mechanical handling equipment.

**7. HANDLING AND STORAGE****Handling****Precautions for safe handling**

When melting, soldering and grinding:

Do not breathe Dusts and vapours:.

Local ventilation.

No particular measures required if used correctly.

If occurs dust / vapour: Wear personal protective equipment

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

<b>• platinum</b>			
CAS-No.	7440-06-4	EC-No.	231-116-1
Control parameters	1 mg/m3		Time Weighted Average (TWA):(EU ELV)
Control parameters	5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
<b>• rhodium</b>			
CAS-No.	7440-16-6	EC-No.	231-125-0
Control parameters	0.1 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
type of exposition	Fume and inhalable dust.		
Control parameters	0.3 mg/m3		Short Term Exposure Limit (STEL):(EH40 WEL)
type of exposition	Fume and inhalable dust.		
<b>• Indium</b>			
CAS-No.	7440-74-6	EC-No.	231-180-0
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		
Control parameters	0.1 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	0.3 mg/m3		Short Term Exposure Limit (STEL):(EH40 WEL)
<b>• Tantal</b>			
CAS-No.	7440-25-7	EC-No.	231-135-5
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		
Control parameters	5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	10 mg/m3		Short Term Exposure Limit (STEL):(EH40 WEL)

**Engineering measures**

Zinc oxide fumes is released during processing

When melting, soldering and grinding:

Ensure that there is suitable air extraction / ventilation at the workplace or at the working machines.

Extractor suction on specific objects.

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### 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.

No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work.

Do not inhale fumes, dust, vapour.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	solid
Colour	yellow
Odour	odourless

### Information on basic physical and chemical properties

Melting point/range	1040 - 1140 °C
Density	19.0 g/cm <sup>3</sup>

## 10. STABILITY AND REACTIVITY

Conditions to avoid	No restrictions
Incompatible materials	None known
Hazardous decomposition products	decomposition products if heated above melting point. Metallic vapours

## 11. TOXICOLOGICAL INFORMATION

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

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Mutagenicity assessment	no data available
Carcinogenicity	No data available
Toxicity to reproduction	No data available
Further information	No dangerous reactions are known to occur with correct handling and storage.

## 12. ECOLOGICAL INFORMATION

### Further information on ecology

Further Information	Dusts and water soluble alloy types: Prevent penetration into soil, stretches of water and drainage systems.
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## 13. DISPOSAL CONSIDERATIONS

### Product

Can be used after re-conditioning.

## 14. TRANSPORT INFORMATION

### Transport/further information

Not dangerous according to transport regulations.

## 15. REGULATORY INFORMATION

### National legislation

## 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.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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<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 (geschlossenes Gefäß)
<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>DNEL</b>	Derived No Effect Level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<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 DGR</b>	International Air Transport Association – Dangerous Goods Regulations
<b>ICAO-TI</b>	International Civil Aviation Organisation - Technical Instructions
<b>IMDG Code</b>	International Maritime Dangerous Goods Code
<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 (offenes Gefäß)
<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>RID</b>	Regulations concerning the International Carriage of Dangerous Goods by Rail
<b>TA</b>	Technical Instructions (German Ordinance)
<b>TPR</b>	Third Party Representative (Art. 4)
<b>TRGS</b>	Technical Rules for Hazardous Substances (German Regulations)
<b>VCI</b>	German "Verband der Chemischen Industrie e. V."
<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>	German Water Hazard Class
<b>WHO</b>	World Health Organization