SAFETY DATA SHEET
Biomet Bone Cement Powder

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name
Biomet Bone Cement Powder

Applications
Bone Cement


Supplier
Biomet France SARL
Boite Postale BP 75
F26903 VALENCE CEDEX 9, FRANCE
Tel: (33) 0475759100
eufrvlogindus@biomet.com

Contact person
Eric Tchelekian

Emergency telephone number
+49 30 19240 (24 hrs)

2. HAZARDS IDENTIFICATION

HEALTH RISK: Sensitising.
ENVIRONMENTAL RISKS. Not regarded as an environmental hazard under current legislation.
FIRE HAZARD: Non-flammable. Risk of dust explosion

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS No.</th>
<th>Content</th>
<th>Symbol</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zirconiumdioxide</td>
<td>215-227-2</td>
<td>1314-23-4</td>
<td>10-60 %</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Dibenzoyl peroxide</td>
<td>202-327-6</td>
<td>94-36-0</td>
<td>0.3-1.2 %</td>
<td>Xi ,E</td>
<td>R-2, R-36, R-43</td>
</tr>
<tr>
<td>Poly methyl methacrylate</td>
<td></td>
<td></td>
<td>0-90 %</td>
<td>-</td>
<td></td>
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</tbody>
</table>

Composition comments
Powder consisting of the above substances and used as part of the production of bone cement.

Dibenzoylperoxide is mixed with water to make less sensitive.

4. FIRST AID MEASURES

Inhalation
Fresh air.

Ingestion
Drink a few glasses of water or milk.

Skin
Wash skin thoroughly with soap and water.

Eyes
Make sure to remove any contact lenses from the eyes before rinsing. Immediately rinse with water for several minutes. Contact physician if irritation persists.

5. FIRE-FIGHTING MEASURES
6. ACCIDENTAL RELEASE MEASURES

**Personal protection**
Avoid generation and spreading of dust. Ventilate well. Wear necessary protective equipment. Avoid direct contact with product. See "handling" section 7 and "personal protection" section 8.

**Environmental protection**
Avoid discharge into water courses or onto the ground.

**Spill cleanup methods**
Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

7. HANDLING AND STORAGE

**Usage precautions**
Avoid handling which leads to dust formation. Use mechanical ventilation in case of handling which causes formation of dust. Eye wash station should be available at the work place.

**Storage precautions**
Keep in cool, dry, ventilated storage and closed containers.

**Specific use(s)**
Contact supplier for more information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS no.</th>
<th>Reference</th>
<th>LT Exp 8 Hrs</th>
<th>ST Exp 15 Min</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibenzoyl peroxide</td>
<td>94-36-0</td>
<td>WEL</td>
<td>5 mg/m3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ingredient comments**
Workplace Exposure Limits (WEL), UK:
Zirconium compounds, as Zr: LTE 5 mg/m3, STE 10 mg/m3
If decomposed, traces of:
Methyl methacrylate LTE 208 mg/m3, STE 416 mg/m3

**Ventilation**
Provide sufficient ventilation for operations causing dust formation.

**Respirators**
During dust-raising work: Use respiratory equipment with particle filter, type P2.

**Protective gloves**
Use suitable protective gloves if risk of skin contact.

**Eye protection**
Use tight fitting goggles if dust is generated.

**Other Protection**
Protective clothing as needed.

**Environmental exposure controls**
See section 6 and 7.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
Powder, dust.

**Colour**
White.

**Odour**
No characteristic odour.

**Solubility description**

**Specific gravity**
0,3 g/cm3, 20°C

10. STABILITY AND REACTIVITY

**Stability**
Stable under normal temperature conditions. Decomposes at temperatures above 160°C. Will release trace quantity of methyl methacrylate vapour on decomposition.

**Conditions to avoid**
Avoid exposure to high temperatures or direct sunlight.
**11. TOXICOLOGICAL INFORMATION**

**Inhalation**
Dust may irritate throat and respiratory system and cause coughing.

**Ingestion**
May cause irritation to the mouth and throat.

**Skin**
Powder may irritate skin.

**Eyes**
Irritation of eyes and mucous membranes. Risk of corneal damage.

**Health warnings**
May cause sensitisation by skin contact.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**
Not regarded as dangerous for the environment.

**Mobility**
The product is insoluble in water.

**Bioaccumulative potential**
The product does not contain any substances expected to be bioaccumulating. No bioaccumulation expected.

**Persistence and degradability**
No data available.

**Other adverse effects**
Not known.

**13. DISPOSAL CONSIDERATIONS**

**General/cleaning**
Allocation of EWC code to be based on the source generating the waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. When handling waste, consideration should be made to the safety precautions applying to handling of the product.

**Waste class**
18 01 wastes from natal care, diagnosis, treatment or prevention of disease in humans 18 01 06* chemicals consisting of or containing dangerous substances 18 01 07 chemicals other than those mentioned in 18 01 06

**14. TRANSPORT INFORMATION**

**ROAD TRANSPORT (ADR):**
Road transport notes
Not classified.

**RAIL TRANSPORT (RID):**
Rail transport notes
Not classified.

**SEA TRANSPORT (IMDG):**
Sea transport notes
Not classified.

**AIR TRANSPORT (IATA-DGR / ICAO-TI):**
Air transport notes
Not classified.

**15. REGULATORY INFORMATION**

**Symbol(s)**

Contains
dibenzoyl peroxide

**Risk phrases**
R-43 May cause sensitisation by skin contact.

**Safety phrases**
S-23/24/25 Avoid inhalation and contact with skin and eyes.
S-37 Wear suitable gloves.
<table>
<thead>
<tr>
<th><strong>EU directives</strong></th>
<th>EC directive 1907/2006</th>
</tr>
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<tbody>
<tr>
<td><strong>16. OTHER INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Explanations to R-phrases in section 3</strong></td>
<td>R-2 Risk of explosion by shock, friction, fire or other sources of ignition. R-36 Irritating to eyes. R-43 May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td><strong>Revision comments</strong></td>
<td>Changes made in section1. Supplier and contact person.</td>
</tr>
<tr>
<td><strong>Issued by</strong></td>
<td>Farligt Gods Center AB, Gothenburg Sweden</td>
</tr>
<tr>
<td><strong>Date of issue</strong></td>
<td>2009-06-29</td>
</tr>
<tr>
<td><strong>Revision date</strong></td>
<td>2010-09-24</td>
</tr>
<tr>
<td><strong>Revision no.</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Signature</strong></td>
<td>AO</td>
</tr>
<tr>
<td><strong>Disclaimer</strong></td>
<td>The information in this Safety Data Sheet is in compliance with Regulation (EC) 1907/2006, based largely on information from the manufacturer/distributor, and assumes that the product is being used within the prescribed area of usage.</td>
</tr>
</tbody>
</table>