1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Endo-Eze™ MTAFlow™ Powder
  - **Article number:** 1007305
  - **Index number:** SDS 363-001.05
- **Relevant identified uses of the substance or mixture and uses advised against**
  - Professional Dental Repair Cement, Part 1 of 2
- **Application of the substance / the mixture** Professional Dental Repair Cement, Part 1 of 2

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Ultradent Products Inc.
    505 W. Ultradent Drive (10200 S)
    South Jordan, UT 84095-3942
    USA
    onlineordersupport@utradent.com
  - **EC Responsible Person:** Ultradent Products GmbH
    Am Westhover Berg 30
    51149 Cologne Germany
    Email: infoDe@utradent.com
    Emergency Phone: +49(0)2203-35-92-0
  - **Further information obtainable from:** Customer Service
  - **Emergency telephone number:**
    CHEMTREC (NORTH AMERICA) :(800) 424-9300
    (INTERNATIONAL) : +(703) 527-3887

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
  Emergency Overview: Dust may irritate throat and respiratory system and cause coughing. Frequent inhalation of dust over a long period of time increase the risk of developing lung diseases. Dust or splashes from the mixture may cause permanent eye damage. Dust has an irritating effect on moist skin. Prolonged contact may cause burns.
  The product is not classified, according to the CLP regulation.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
  The Regulation EC 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) shall not apply to a medical device in the finished state used in direct physical contact with the human body according to Art. 1.5(d). Therefore, the product is exempted from the CLP labelling requirements, and no SDS is required by Regulation 1907/2006, Art 2 (6c), REACH. Therefore, all given data, classification, and information on this SDS are provided solely on a voluntary basis.
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
3 Composition/information on ingredients

- **Chemical characterisation:** Mixtures
- **Description:** Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12168-85-3</td>
<td>235-336-9</td>
<td>Tricalcium Silicon Pentaoxide</td>
<td>&lt; 50%</td>
</tr>
<tr>
<td>1304-76-3</td>
<td>215-134-7</td>
<td>Bismuth Trioxide</td>
<td>&lt; 30%</td>
</tr>
<tr>
<td>10034-77-2</td>
<td>233-107-8</td>
<td>Dicalcium Silicate</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>7778-18-9</td>
<td>231-900-3</td>
<td>Calcium Sulfate</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>14464-46-1</td>
<td>238-455-4</td>
<td>Cristobalite STOT RE 1, H372</td>
<td>&lt;0.5%</td>
</tr>
</tbody>
</table>

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
  Do not induce vomiting; call for medical help immediately. Rinse out mouth and then drink plenty of water.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**
    Seek medical advice after large-scale (>25 gm) exposure.

5 Firefighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:**
    Water spray
    Foam, dry chemical, carbon dioxide
  - **Special hazards arising from the substance or mixture** No further relevant information available.
  - **Advice for firefighters:**
  - **Protective equipment:**
    Wear fully protective suit.
    Wear self-contained respiratory protective device.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective clothing.
  - Avoid formation of dust.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling:** Keep receptacles tightly sealed.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Provide ventilation for receptacles.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Store in dry conditions.
    - Protect from contamination.
    - See product labelling.
- **Specific end use(s)** Professional Dental Repair Cement, Part 1 of 2

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - The usual precautionary measures are to be adhered to when handling chemicals.
  - **Respiratory protection:** Suitable respiratory protective device recommended.
  - **Protection of hands:**
    - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
    - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - **Material of gloves**
    - The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
### Safety data sheet

**Trade name:** Endo-Eze™ MTAFlow™ Powder

*(Contd. of page 3)*

<table>
<thead>
<tr>
<th><strong>· Penetration time of glove material</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.</td>
</tr>
</tbody>
</table>

| **· Eye protection:** |
| Face protection |

| **· Body protection:** |
| Protective work clothing |

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>· Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>· General Information</td>
</tr>
<tr>
<td>· Appearance:</td>
</tr>
<tr>
<td>Form: Powder</td>
</tr>
<tr>
<td>Colour: Grey</td>
</tr>
<tr>
<td>Odour: Odourless</td>
</tr>
<tr>
<td>Odour threshold: Not determined.</td>
</tr>
<tr>
<td>· pH-value: ~12 mixed with water</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point: &gt; 700 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: &gt;1,800 °C</td>
</tr>
</tbody>
</table>

| · Flash point: |
| Not applicable. |

| · Flammability (solid, gas): |
| Not determined. |

| · Decomposition temperature: |
| Not determined. |

| · Auto-ignition temperature: |
| Product is not selfigniting. |

| · Explosion properties: |
| Product does not present an explosion hazard. |

<table>
<thead>
<tr>
<th>· Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
</tr>
</tbody>
</table>

| · Vapour pressure: |
| Not applicable. |

| · Density at 20 °C: |
| ~3.7 g/cm³ |

| · Relative density |
| Not determined. |

| · Vapour density |
| Not applicable. |

| · Evaporation rate |
| Not applicable. |

| · Solubility in / Miscibility with water at 20 °C: |
| <1 g/l |

| · Partition coefficient: n-octanol/water: |
| Not determined. |

| · Viscosity: |
| Dynamic: Not applicable. |
| Kinematic: Not applicable. |

| · Solvent content: |
| VOC (EC) 0.00 % |

| · Solids content: |
| 100.0 % |

*(Contd. on page 5)*
Safety data sheet  
according to 1907/2006/EC, Article 31

Trade name: Endo-Eze™ MTAFlow™ Powder

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: Reacts with water.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.
- Primary irritant effect:
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behaviour in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.
14 Transport information

- UN-Number
  - ADR, ADN, IMDG, IATA: not regulated

- UN proper shipping name
  - ADR, ADN, IMDG, IATA: not regulated

- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA: not regulated

- Packing group
  - ADR, IMDG, IATA: not regulated

- Environmental hazards: Not applicable.

- Special precautions for user: Not applicable.

- Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

- UN "Model Regulation": not regulated

15 Regulatory information

- Chemical safety assessment:
  Device is biocompatible when used as directed by dental professionals per ISO 10993-1

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H372 Causes damage to organs through prolonged or repeated exposure.

- Department issuing SDS: Regulatory Affairs
- Contact: Customer Service

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1