1 Identification

· Product identifier
  · Trade name: Zenostar T / MO / MT
  · CAS Number: 66402-68-4
  · EC number: 266-340-9

· Application of the substance / the mixture
  · Manufacture of dental prosthesis

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    Wieland Dental + Technik GmbH & Co. KG
    Lindenstraße 2
    75175 Pforzheim, Germany
    Telefon +49(0) 7231-37050, Telefax +49(0) 7231-357959

  · Information department: msds@wieland-dental.de
  · Emergency telephone number:
    24 Hour Emergency Assistance:
    Emergency-Call USA - Infotrac: 1-800-535-5053
    Emergency-Call Canada - Canutec: 1-613-996-6666

  General SDS Assistance:
  US: 1-800-533-6825
  Canada: 1-800-263-8182

2 Hazard(s) identification

· Classification of the substance or mixture
  The substance is not classified according to the Globally Harmonized System (GHS).

· Label elements
  · GHS label elements Void
  · Hazard pictograms Void
  · Signal word Void
  · Hazard statements Void

· Classification system:
  · NFPA ratings (scale 0 - 4)
    Health = 0
    Fire = 0
    Reactivity = 0

  · HMIS-ratings (scale 0 - 4)
    HEALTH Health = 0
    FIRE Fire = 0
    REACTIVITY Reactivity = 0

· Other hazards
  · Mechanical processing:
    Dust generation

· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

(Contd. on page 2)
Trade name: Zenostar T / MO / MT

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  66402-68-4 ceramic materials
- Identification number(s) ---
- EC number: 266-340-9
- Description: yttrium-stabilized zirconium oxide

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Grinding dust: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
  Mechanical effects only.
- After swallowing: Grinding dust: Rinse out mouth and then drink plenty of water.
  If symptoms persist consult doctor.
- 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
  No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  Suitable extinguishing agents: The product is not flammable.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: No special measures required.
- 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
  Only adequately trained personnel should handle this product.
  For use in dentistry only.
- Information about protection against explosions and fires: No special measures required.

(Contd. on page 3)
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures: Usual hygienic measures for dental practice.
- Breathing equipment:
  Mechanical processing:
  Use respiratory protective device against the effects of dust.
- Recommended filter device for short term use:
  FFP2

- Protection of hands: Protective gloves should always be worn during mechanical and thermal processing.
- Material of gloves
  Mechanical processing:
  Chloroprene rubber, CR
  Nitrile rubber, NBR
- Penetration time of glove material -
- Eye protection:
  Always wear safety goggles during mechanical processing (grinding, sawing /cutting, drilling, milling).

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Solid
    - Color: According to product specification
    - Odor: Odorless
    - Odor threshold: Not applicable.
  - pH-value: Not applicable.
- Change in condition
  - Melting point/Melting range: Not applicable.
  - Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
- Flammability (solid, gaseous): Product is not flammable.
### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal handling and storage conditions.
- **Thermal decomposition / conditions to be avoided** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials** No further relevant information available.
- **Hazardous decomposition products** None under normal conditions of storage and use.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification**
  - Based on available data, the classification criteria are not met.
- **Additional toxicological information** No further relevant information available.

- **Carcinogenic categories**
  - **NTP (National Toxicology Program)** Substance is not listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
Trade name: Zenostar T / MO / MT

· Behavior in environmental systems:
  · Bioaccumulative potential: No further relevant information available.
  · Mobility in soil: No further relevant information available.
  · Additional ecological information:
    · General notes: Generally not hazardous for water
    · 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:
    Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
  · Uncleaned packagings:
    · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
  · DOT, ADR, RID, ADN, ADN, IMDG, IATA: Void
· UN proper shipping name
  · DOT, ADR, RID, ADN, ADN, IMDG, IATA: Void
· Transport hazard class(es)
  · DOT, ADR, RID, ADN, ADN, IMDG, IATA
    · Class: Void
· Packing group
  · DOT, ADR, RID, ADN, IMDG, IATA: Void
· Environmental hazards:
  · Marine pollutant:
    No
· Special precautions for user
  · Not applicable.
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  · Not applicable.
· Transport/Additional information:
  · Product is not classified as a dangerous good for transport (ADR, IMDG, IATA).
· UN "Model Regulation":
  · Void

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
  · Sara
    · Section 355 (extremely hazardous substances):
      Substance is not listed.

(Contd. on page 6)
Trade name: **Zenostar T / MO / MT**

<table>
<thead>
<tr>
<th>Section 313 (Specific toxic chemical listings):</th>
<th>Substance is not listed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA (Toxic Substances Control Act):</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Proposition 65</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause cancer:</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females:</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males:</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity:</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Carcinogenic categories</td>
<td></td>
</tr>
<tr>
<td>EPA (Environmental Protection Agency)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>GHS label elements</td>
<td>Void</td>
</tr>
<tr>
<td>Hazard pictograms</td>
<td>Void</td>
</tr>
<tr>
<td>Signal word</td>
<td>Void</td>
</tr>
<tr>
<td>Hazard statements</td>
<td>Void</td>
</tr>
<tr>
<td>National regulations:</td>
<td></td>
</tr>
<tr>
<td>Other regulations, limitations and prohibitive regulations</td>
<td>The product is a medical device according to the Directive 93/42/EEC. This product is classified as a medical device under US and Canadian regulations and has been reviewed by the US Food and Drug Administration and Health Canada.</td>
</tr>
<tr>
<td>Chemical safety assessment:</td>
<td>A Chemical Safety Assessment has not been carried out.</td>
</tr>
</tbody>
</table>

**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.

- **Date of preparation / last revision** 09/24/2015 / 1
- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - 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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
Trade name: **Zenostar T / MO / MT**

<table>
<thead>
<tr>
<th>LD50: Lethal dose, 50 percent</th>
<th>PBT: Persistent, Bioaccumulative and Toxic</th>
</tr>
</thead>
<tbody>
<tr>
<td>vPvB: very Persistent and very Bioaccumulative</td>
<td></td>
</tr>
</tbody>
</table>

* Data compared to the previous version altered.