1 Identification

- Product identifier
  - Trade name: Zenostar MT Color A1, A2, B1, B2, D3

- 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 identification

- Classification of the substance or mixture
  - Eye Dam. 1 H318 Causes serious eye damage.

- Label elements
  - GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms

  GHS05

- Signal word: Danger

- Hazard-determining components of labeling:
  Erbium(III)-nitrat pentahydrat

- Hazard statements:
  Causes serious eye damage.

- Precautionary statements:
  Wear protective gloves/protective clothing/eye protection/face protection.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Immediately call a POISON CENTER/doctor.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    Health = 1
    Fire = 0
    Reactivity = 0

(Contd. on page 2)
Trade name: Zenostar MT Color A1, A2, B1, B2, D3

- HMIS-ratings (scale 0 - 4)
  - Health: Health = 1
  - Fire: Fire = 0
  - Reactivity: Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/Information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
<table>
<thead>
<tr>
<th>CAS</th>
<th>Substance Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>10031-51-3</td>
<td>Erbium(III)-nitrat pentahydrat</td>
<td>2.5-&lt;10% w/w</td>
</tr>
<tr>
<td>7782-61-8</td>
<td>Iron(III) nitrate nonahydrate</td>
<td>1-&lt;10% w/w</td>
</tr>
</tbody>
</table>

### 4 First aid measures

- Description of first aid measures
- After inhalation:
  - Supply fresh air or oxygen; call for doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  - Rinse with water.
- After eye contact:
  - Rinse opened eye for several minutes under running water.
  - Call a doctor immediately.
- After swallowing:
  - Rinse out mouth and then drink plenty of water.
  - Seek medical treatment.
- 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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- 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
  - Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
41.2.6

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
Specific end use(s) No further relevant information available.

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:
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 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.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
Breathing equipment: Not required.
Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves
Natural rubber, NR
Chloroprene rubber, CR
Nitrile rubber, NBR
Butyl rubber, BR
9 Physical and chemical properties

- **Information on basic physical and chemical properties**

  - **General Information**
  
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Form:</strong></td>
<td>Fluid</td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>Different according to coloring</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Characteristic</td>
</tr>
<tr>
<td><strong>Odor threshold:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/Melting range:</strong></td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Boiling point/Boiling range:</strong></td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Auto igniting:</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lower:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Upper:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor pressure:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Density:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Soluble.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Dynamic:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Kinematic:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>
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.
  - on the eye: Strong irritant with the danger of severe eye injury.
- Additional toxicological information:
  - Carcinogenic categories
    - NTP (National Toxicology Program)
      None of the ingredients is listed.
    - OSHA-Ca (Occupational Safety & Health Administration)
      None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior 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 (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:
  Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
14 Transport information

- UN-Number
  - DOT, TDG, ADN, IMDG, IATA: Void

- UN proper shipping name
  - DOT, TDG, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  - DOT, TDG, ADN, IMDG, IATA: Void

- Class
  - DOT, TDG, IMDG, IATA: Void

- Packing group
  - DOT, TDG, IMDG, IATA: Void

- Environmental hazards:
  - Not applicable.

- Special precautions for user
  - Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 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):
  - None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):
  - All ingredients are listed.

- TSCA (Toxic Substances Control Act):
  - None of the ingredients is listed.

- Proposition 65

- Chemicals known to cause cancer:
  - None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for females:
  - None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:
  - None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:
  - None of the ingredients is listed.
· **Carcinogenic categories**

  - **EPA (Environmental Protection Agency)**
    
    None of the ingredients is listed.

  - **TLV (Threshold Limit Value established by ACGIH)**
    
    None of the ingredients is listed.

  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    
    None of the ingredients is listed.

· **GHS label elements**

  The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

  GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**

  Erbium(III)-nitrat pentahydrat

· **Hazard statements**

  Causes serious eye damage.

· **Precautionary statements**

  Wear protective gloves/protective clothing/eye protection/face protection.

  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

  Immediately call a POISON CENTER/doctor.

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

  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.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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 / -

· **Abbreviations and acronyms:**

  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

  ELINCS: European List of Notified 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

  LD50: Lethal dose, 50 percent

  PBT: Persistent, Bioaccumulative and Toxic

  vPvB: very Persistent and very Bioaccumulative

  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1