1 Identification

- Product identifier
  - Trade name: Zenostar MT Color D2

- Application of the substance / the mixture
  Manufacture of dental prothesis

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    Wieland Dental + Technik GmbH & Co. KG
    Lindenstraße 2
    75175 Pforzheim, Germany
    Telephone +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 Irrit. 2A H319 Causes serious eye irritation.

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

- Hazard pictograms

  GHS07

- Signal word Warning

- Hazard statements
  Causes serious eye irritation.

- Precautionary statements
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  If eye irritation persists: Get medical advice/attention.

- Classification system:
  - NFPA ratings (scale 0 - 4)


Health = 1
Fire = 0
Reactivity = 0

(Contd. on page 2)
Safety Data Sheet
according to HPR, Schedule 1

Printing date 09/24/2015  Reviewed on 09/23/2015

Trade name: Zenostar MT Color D2

- HMIS-ratings (scale 0 - 4)
  - Health = 1
  - Fire = 0
  - 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:
  - CAS: 7782-61-8 Iron(III) nitrate nonahydrate 1-5% w/w
  - CAS: 10031-51-3 Erbium(III)-nitrat pentahydrat 1-1.5% w/w

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.
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
Fluorocarbon rubber (Viton)  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
· **Penetration time of glove material**  
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.  
· **Eye protection:**  
  Tightly sealed goggles  

### 9 Physical and chemical properties  

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Form:</strong> Fluid</td>
<td></td>
</tr>
<tr>
<td><strong>Color:</strong> According to product specification</td>
<td></td>
</tr>
<tr>
<td><strong>Odor:</strong> Characteristic</td>
<td></td>
</tr>
<tr>
<td><strong>Odor threshold:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>pH-value:</strong> Not determined.</td>
<td></td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/Melting range:</strong> Undetermined.</td>
<td></td>
</tr>
<tr>
<td><strong>Boiling point/Boiling range:</strong> Undetermined.</td>
<td></td>
</tr>
<tr>
<td><strong>Flash point:</strong> Undetermined.</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong> Not applicable.</td>
<td></td>
</tr>
<tr>
<td><strong>Auto igniting:</strong> Product is not selfigniting.</td>
<td></td>
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<tr>
<td><strong>Danger of explosion:</strong> Product does not present an explosion hazard.</td>
<td></td>
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<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lower:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Upper:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Vapor pressure:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Density:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Relative density</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Vapor density</strong> Not determined.</td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation rate</strong> Not determined.</td>
<td></td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Water:</strong> Soluble.</td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong> Not determined.</td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Dynamic:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Kinematic:</strong> Not determined.</td>
<td></td>
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<tr>
<td><strong>Other information</strong> No further relevant information available.</td>
<td></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: Irritating effect.
- 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.

(Contd. on page 6)
Trade name: Zenostar MT Color D2

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
  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 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):
  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.
Trade name: Zenostar MT Color D2

- 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
  GHS07

- Signal word Warning

- Hazard statements
  Causes serious eye irritation.

- Precautionary statements
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  If eye irritation persists: Get medical advice/attention.

- 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.

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 Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A