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

- Product identifier
  - Trade name: EndoREZ™ Catalyst
  - Article number: 81231
  - Index number: SDS 71-001.08
- Relevant identified uses of the substance or mixture and uses advised against
  Professional Endodontic Canal Sealer
- Application of the substance / the mixture: Professional Endodontic Canal Sealer
- 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@ultradent.com

  EC Responsible Person
  Ultradent Products GmbH
  Am Westhover Berg 30
  51149 Cologne Germany
  Email: infoDe@ultradent.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
  GHS07
  Skin Sens. 1  H317  May cause an allergic skin reaction.

- Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The Regulation EC 1272/2008 on classification, labeling 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 labeling 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: GHS07
- Signal word: Warning
- Hazard-determining components of labelling:
  Diurethane Dimethacrylate
  Triethylene Glycol Dimethacrylate
- Hazard statements
  H317 May cause an allergic skin reaction.
Trade name: EndoREZ™ Catalyst

Precautionary statements:
- **P261**: Avoid breathing dust/fume/gas/mist/vapours/spray.
- **P272**: Contaminated work clothing should not be allowed out of the workplace.
- **P280**: Wear protective gloves.
- **P302+P352**: If on skin: Wash with plenty of water.
- **P333+P313**: If skin irritation or rash occurs: Get medical advice/attention.
- **P501**: Dispose of contents/container in accordance with local/regional/national/international regulations.

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

composition/information on ingredients:

Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Chemical Name</th>
<th>Skin Sens.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>72869-86-4</td>
<td>276-957-5</td>
<td>Diurethane Dimethacrylate</td>
<td>1, H317</td>
<td>&gt;25-&lt;50%</td>
</tr>
<tr>
<td>109-16-0</td>
<td>203-652-6</td>
<td>Triethylene Glycol Dimethacrylate</td>
<td>1, H317</td>
<td>&gt;10-&lt;25%</td>
</tr>
</tbody>
</table>

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

First aid measures:

Description of first aid measures:
- **After inhalation:**
  - Supply fresh air and to be sure call for a doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
  - Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
  - Rinse opened eye for several minutes under running water.
- **After swallowing:**
  - 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.

Firefighting measures:

Extinguishing media:
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

Special hazards arising from the substance or mixture:
- No further relevant information available.

Advice for firefighters:
- Protective equipment: No special measures required.

Accidental release measures:

Personal precautions, protective equipment and emergency procedures:
- Not required.

Environmental precautions:
- Do not allow to enter sewers/surface or ground water.
7 Handling and storage

- Handling:
  - Precautions for safe handling: No special precautions are necessary if used correctly.
  - 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: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: None.

- Specific end use(s) Professional Endodontic Canal Sealer

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:
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
  - Respiratory protection: Not required.
  - Protection of hands:

  Protective gloves

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 can not be calculated in advance and has therefore to be checked prior to the application.

- 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.
Trade name: EndoREZ™ Catalyst

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Pasty
      - Colour: Beige
    - Odour: Acrylic
    - Odour threshold: Not determined.
  - pH-value: Not applicable (non-aqueous)

- Change in condition
  - Melting point/freezing point: Undetermined.
  - Initial boiling point and boiling range: Undetermined.

- Flash point: Not applicable.

- Flammability (solid, gas): Not applicable.

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product does not present an explosion hazard.

- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.

- Vapour pressure: Not determined.

- Density at 20 ºC: 1.7-1.8 g/cm³
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.

- Solubility in / Miscibility with:
  - Water: Not miscible or difficult to mix.

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

- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.

- Solvent content:
  - VOC (EC): 0.00 %

- Other information: No further relevant information available.

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.
Safety data sheet
generated to 1907/2006/EC, Article 31

Trade name: EndoREZ™ Catalyst

- 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: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity Based on available data, the classification criteria are not met.

  - LD/LC50 values relevant for classification:

  ATE (Acute Toxicity Estimates)

<table>
<thead>
<tr>
<th>Inhalative</th>
<th>LC50/4 h</th>
<th>6.95 mg/l (rat)</th>
</tr>
</thead>
</table>

  **72869-86-4 Diurethane Dimethacrylate**

<table>
<thead>
<tr>
<th>Oral LD50</th>
<th>&gt;5,000 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish</td>
<td>16.4 mg/l (Fish) (Toxicity to fish)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>&gt;2,000 mg/kg (mouse)</td>
</tr>
</tbody>
</table>

  - 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
      May cause an allergic skin reaction.
    - 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:

    72869-86-4 Diurethane Dimethacrylate

    Biodegradability 28 days (Aerobic) (Biodegradability testing)
    EC50 >0.6 mg/l (Algae) (Toxicity to algae)
    >1.2 mg/l (daphnia) (Toxicity to aquatic invertebrates)

    109-16-0 Triethylene Glycol Dimethacrylate

    Biodegradability 28 days (Aerobic) (Biodegradability testing)
    Aquatic toxicity 32 mg/l (daphnia) (No Observed Effect Concentration)
    EC50 >100 mg/l (Algae) (Toxicity to algae)

    - 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.
48.0

· 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
   Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· European waste catalogue
   HP 13 Sensitising
· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

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
   · Class not regulated
· Packing group
   · ADR, IMDG, IATA not regulated
· Environmental hazards:
   Not applicable.
· Special precautions for user
   Not applicable.
· Stowage Category
   A
· Transport in bulk according to Annex II of Marpol and the IBC Code
   Not applicable.
· UN "Model Regulation": not regulated

15 Regulatory information
· Safety, health and environmental regulations/legislation specific for the substance or mixture
   REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
· 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**
  - H317 May cause an allergic skin reaction.

- **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Sens. 1: Skin sensitisation – Category I