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

1.1 Product identifier
   Trade name: Gluma Desensitizer

1.2 Relevant identified uses of the substance or mixture and uses advised against
   No further relevant information available.

1.3 Details of the supplier of the safety data sheet
   Manufacturer/Supplier: Kulzer GmbH
   Leipziger Straße 2, 63450 Hanau (Germany) Tel.: +49 (0)800 4372522

   Informing department: E-Mail: msds@kulzer-dental.com

1.4 Emergency telephone number: Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   Skin Irrit. 2 H315 Causes skin irritation.
   Eye Dam. 1 H318 Causes serious eye damage.
   Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
   Skin Sens. 1 H317 May cause an allergic skin reaction.
   STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements
   Labeling according to Regulation (EC) No 1272/2008
   The product is classified and labelled according to the CLP regulation.

   Hazard pictograms
   GHS05  GHS07  GHS08

   Signal word Danger

   Hazard-determining components of labelling:
   2-hydroxyethyl methacrylate
   glutaral

   Hazard statements
   H315 Causes skin irritation.
   H318 Causes serious eye damage.
   H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
   H317 May cause an allergic skin reaction.
   H335 May cause respiratory irritation.

   Precautionary statements
   P285 In case of inadequate ventilation wear respiratory protection.
   P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
   P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)
Trade name: Gluma Desensitizer

P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P405 Store locked up.

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

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
  - Description:
  - Dangerous components:
    - CAS: 868-77-9
      2-hydroxyethyl methacrylate
      Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317
      25-50%
    - CAS: 111-30-8
      glutaral
      Acute Tox. 3, H301; Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Skin Sens. 1, H317
      5-10%

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

SECTION 4: First aid measures

4.1 Description of first aid measures
  - General information
    Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
    - After skin contact Instantly wash with water and soap and rinse thoroughly.
    - After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.
    - After swallowing Rinse out mouth and then drink plenty of water. Instantly call for doctor.
      In case of persistent symptoms consult doctor.
  - 4.2 Most important symptoms and effects, both acute and delayed
    No further relevant information available.
  - 4.3 Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
  - Suitable extinguishing agents
    CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
  - 5.2 Special hazards arising from the substance or mixture
    Formation of toxic gases is possible during heating or in case of fire.
  - 5.3 Advice for firefighters
    - Protective equipment: Put on breathing apparatus.
Trade name: Gluma Desensitizer

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions: No special measures required.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).
  Dispose of contaminated material as waste according to item 13.
  Send for recovery or disposal in suitable containers.
- 6.4 Reference to other sections
  See Section 13 for information on disposal.
  See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Keep containers tightly sealed.
  Wear protective equipment. Keep unprotected persons away.
  Ensure good ventilation/exhaustion at the workplace.
  • Information about protection against explosions and fires: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
  • Storage
    • Requirements to be met by storerooms and containers: No special requirements.
    • Information about storage in one common storage facility: Not required.
    • Further information about storage conditions: None.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- 8.1 Control parameters
  Components with critical values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutaral</td>
<td>0.2 mg/m³, 0.05 ppm</td>
<td>0.2 mg/m³, 0.05 ppm</td>
</tr>
<tr>
<td>Sen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OES</td>
<td>0.7 mg/m³, 0.2 ppm</td>
<td></td>
</tr>
</tbody>
</table>

• Additional information: The lists that were valid during the compilation were used as basis.

- 8.2 Exposure controls
  • Personal protective equipment
    • General protective and hygienic measures
      Keep away from foodstuffs, beverages and food.
      Instantly remove any soiled and impregnated garments.
      Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

- **Breathing equipment:**
  Not necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

- **Protection of hands:**
  The glove material has to be impermeable and resistant to the product/substance/preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.
  Solvent resistant gloves
  Check protective gloves prior to each use for their proper condition.
  recommended

   - **Material of gloves**
     The selection of the 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 break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

   - **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
     Butyl rubber, BR
     Nitrile rubber, NBR

- **Eye protection:**
  Before use, put on the protective goggles and cover the patient´s eyes to protect against splashes of material.
  Tightly sealed safety glasses.

- **Body protection:** Light weight protective clothing

*SECTION 9: Physical and chemical properties*

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Fluid
      - Colour: Colourless
    - **Smell:** Aromatic
    - **Odour threshold:** Not determined.
  - **pH-value at 20 °C:** 4.0
  - **Change in condition**
    - **Melting point/Melting range:** Not determined
    - **Boiling point/Boiling range:** 100 °C
  - **Flash point:** Not applicable

(Contd. of page 3)
Trade name: Gluma Desensitizer

- Inflammability (solid, gaseous): Not applicable.
- Ignition temperature: 230.0 °C
- Decomposition temperature: Not determined.
- Self-inflammability: Product is not selfigniting.
- Danger of explosion: Product is not explosive.
- Critical values for explosion:
  - Lower: Not determined.
  - Upper: Not determined.
- Steam pressure at 20 °C: 23 hPa
- Density at 20 °C: 1.16 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:
  - Water: 58.8 %
  - VOC EU: 9.2 g/l
- 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity
- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability
  - Conditions to be avoided: No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: None.

SECTION 11: Toxicological information
- 11.1 Information on toxicological effects
  - Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values that are relevant for classification:
  - Oral LD50: > 2000 mg/kg (rat)
Trade name: Gluma Desensitizer

868-77-9 2-hydroxyethyl methacrylate

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5564 mg/kg (rat)</td>
<td>&gt;3000 mg/kg (can)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **Skin corrosion/irritation**
    Causes skin irritation.
  - **Serious eye damage/irritation**
    Causes serious eye damage.
  - **Respiratory or skin sensitisation**
    May cause allergy or asthma symptoms or breathing difficulties if inhaled.
    May cause an allergic skin reaction.
  - **CMR effects (carcinogenity, 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**
    May cause respiratory irritation.
  - **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.

### SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:**
    868-77-9 2-hydroxyethyl methacrylate
    LC50/96h 227 mg/l (fish)
  - **12.2 Persistence and degradability**
    No further relevant information available.
  - **12.3 Bioaccumulative potential**
    No further relevant information available.
  - **12.4 Mobility in soil**
    No further relevant information available.
  - **Additional ecological information:**
    - **General notes:**
      Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
      Danger to drinking water if even extremely small quantities leak into soil.
  - **12.5 Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **12.6 Other adverse effects**
    No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - **Waste disposal key number:** 52102
SECTION 14: Transport information

- **14.1 UN-Number**
  - ADR, ADN, IMDG, IATA: Void

- **14.2 UN proper shipping name**
  - ADR, ADN, IMDG, IATA: Void

- **14.3 Transport hazard class(es)**
  - ADR, ADN, IMDG, IATA: Void

- **14.4 Packing group**
  - ADR, IMDG, IATA: Void

- **14.5 Environmental hazards:**
  - Marine pollutant: No

- **14.6 Special precautions for user**
  - Not applicable.

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

- **Transport/Additional information:**
  - -

- **UN "Model Regulation":**
  - Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases:**
  - H301 Toxic if swallowed.
  - H314 Causes severe skin burns and eye damage.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
Trade name: Gluma Desensitizer

H331 Toxic if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400 Very toxic to aquatic life.

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)
- VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

* Data compared to the previous version altered.