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

- 1.1 Product identifier
  - Trade name: VENUS Diamond flow

- 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 Irrit. 2 H319 Causes serious eye irritation.

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

  !
  GHS07

  - Signal word Warning
  - Hazard statements
    H315 Causes skin irritation.
    H319 Causes serious eye irritation.
  - Precautionary statements
    P280 Wear protective gloves / eye protection / face protection.
    P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    P321 Specific treatment (see on this label).
    P362+P364 Take off contaminated clothing and wash it before reuse.
    P332+P313 If skin irritation occurs: Get medical advice/attention.
    P337+P313 If eye irritation persists: Get medical advice/attention.
  - Additional information:
    Contains triethylen glycol dimethacrylate. May produce an allergic reaction.

- 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: -

(Contd. on page 2)
Trade name: VENUS Diamond flow

### Dangerous components:

| CAS: 13760-80-0 | ytterbium trifluoride | Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 |
| EINECS: 237-354-2 |
| 10-25% |

| CAS: 109-16-0 | triethylene glycol dimethacrylate |
| EINECS: 203-652-6 |
| Reg.nr.: 01-211969287-21-0000 |
| < 1% |

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **General information** No special measures required.
  - **After inhalation** Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact** Instantly wash with water and soap and rinse thoroughly.
  - **After eye contact** Rinse opened eye for several minutes under running water.
  - **After swallowing** Rinse out mouth and then drink plenty of water.
    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.
  - Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
  No further relevant information available.
- **5.3 Advice for firefighters**
  - **Protective equipment**: No special measures required.
  - **Additional information**

### 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**: Collect mechanically.
- **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** No special measures required.
  - 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.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Components with critical 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.
  Not required.

- DNELs

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral ge.pop., l.te, syst.</th>
<th>Dermal worker industr., l.te, syst.</th>
<th>Inhalative worker industr., l.te, syst.</th>
</tr>
</thead>
<tbody>
<tr>
<td>41637-38-1 Ethoxyliertes bisphenol A dimethacrylat</td>
<td>0.5 mg/Kg (nd)</td>
<td>2 mg/Kg/d (nd)</td>
<td>3.52 mg/m3 (nd)</td>
</tr>
<tr>
<td>109-16-0 triethylen glycol dimethacrylate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal worker industr., l.te, syst.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Inhalative worker industr., l.te, syst.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109-16-0 triethylen glycol dimethacrylate</td>
<td>13.9 mg/Kg/d (nd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNECs</td>
<td></td>
<td></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
  Wash hands during breaks and at the end of the work.

- Breathing equipment: Not required.

- Protection of hands:
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  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.

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Safety data sheet  
according to 1907/2006/EC, Article 31 

Trade name: VENUS Diamond flow

· 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: 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: Pasty
      · Colour: White
        Yellowish
    · Smell: Odourless
    · Odour threshold: Not determined.
  · pH-value: Not determined.
  · Change in condition
    · Melting point/freezing point: Not determined
    · Initial boiling point and boiling range: Not determined
  · Flash point: > 100 °C
  · Inflammability (solid, gaseous) Not applicable.
  · Decomposition temperature: Not determined.
  · Self-inflammability: Product is not selfigniting.
  · Explosive properties: Product is not explosive.
  · Critical values for explosion:
    · Lower: Not determined.
    · Upper: Not determined.
  · Steam pressure: Not determined.
  · Density at 20 °C 1.9 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.
  · 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
  - Additional information: -

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:
    - 41637-38-1 Ethoxyliertes bisphenol A dimethacrylat
      - Oral LD50 >2,000 mg/kg (rat)
      - Dermal LD50 >2,000 mg/kg (rat)
    - 41137-60-4 diurethandimethacrylate
      - Oral LD50 >5,000 mg/kg (rat)
    - 109-16-0 triethylen glycol dimethacrylate
      - Oral LD50 >5,000 mg/kg (rat)
      - Dermal LD50 >2,000 mg/kg (mouse)
  - Primary irritant effect:
    - Skin corrosion/irritation
      - Causes skin irritation.
    - Serious eye damage/irritation
      - Causes serious eye irritation.
  - Respiratory or skin sensitisation
    - Based on available data, the classification criteria are not met.
  - 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 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.

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity:
    - 41637-38-1 Ethoxyliertes bisphenol A dimethacrylat
      - EC50/72h >100 mg/l (algae) (OECD 201)
      - EC50/48h >100 mg/l (daphnia) (OECD 202)
      - LC50/96h >100 mg/l (fish) (OECD 203)
      - NOEC 28d 14.3 mg/l (bacteria)
Safety data sheet according to 1907/2006/EC, Article 31

Trade name: VENUS Diamond flow

109-16-0 triethylen glycol dimethacrylate
EC50/72h >100 mg/l (algae)

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: Avoid transfer into the environment.

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
  Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

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
  - Class 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
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H335 May cause respiratory irritation.

- 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)
  - DNEL: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Skin Sens. 1B: Skin sensitisation – Category 1B
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- * Data compared to the previous version altered.