1 Identification

- **Product identifier**
  - **Trade name:** VENUS Diamond flow

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

- **Application of the substance / the mixture**
  Dental filling material

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Kulzer Australia Pty Ltd
    11 – 21 Underwood Rd
    HOMEBUSH NSW 2140
    Australia
    Tel: +61 (0) 2 9764 5222
  - **Informing department: see above**
  - **Emergency telephone number:**
    Poison Information Number: Australia 13 11 26 & New Zealand 0800 764 766

2 Hazard(s) Identification

- **Classification of the substance or mixture**
  - **Skin Irrit. 2 H315** Causes skin irritation.
  - **Eye Irrit. 2A H319** Causes serious eye irritation.

- **Label elements**
  - **GHS label elements**
    The product is classified and labelled according to the Globally Harmonised System (GHS).
  - **Hazard pictograms**

- **Signal word**
  Warning

- **Hazard statements**
  Causes skin irritation.
  Causes serious eye irritation.

- **Precautionary statements**
  Wear protective gloves / 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.
  Specific treatment (see on this label).
  Take off contaminated clothing and wash it before reuse.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.

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

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

3 Composition and Information on Ingredients

- Chemical characterisation: Mixtures
- Description:
- Dangerous components:
  - CAS: 13760-80-0, EINECS: 237-354-2 ytterbium trifluoride
  - Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 10-25%
  - CAS: 109-16-0, EINECS: 203-652-6 triethylen glycol dimethacrylate < 1%

4 First Aid Measures

- 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.
  - 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 Fire Fighting Measures

- 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.
  - Special hazards arising from the substance or mixture: No further relevant information available.
  - Advice for firefighters
  - Protective equipment: No special measures required.
  - Additional information:

6 Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Collect mechanically.
- Reference to other sections
  - See Section 13 for information on disposal.
  - See Section 8 for information on personal protection equipment.

7 Handling and Storage

- Handling
  - Precautions for safe handling: No special measures required.
Trade name: VENUS Diamond flow

- 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 containers: No special requirements.
    - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    - Store under dry conditions.
    - Store cool (not above 25 °C).
- Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- 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
    - 41637-38-1 Ethoxyliertes bisphenol A dimethacrylat
      - Oral ge.pop., l.te, syst. 0.5 mg/Kg (nd)
      - Dermal ge.pop., l.te, syst. 2 mg/Kg/d (nd)
      - Inhalative ge.pop., l.te, syst. 1 mg/Kg/d (nd)
    - 109-16-0 triethylen glycol dimethacrylate
      - Dermal worker industr., l.te., syst. 3.52 mg/m3 (nd)
      - Inhalative worker industr., l.te., syst. 0.87 mg/m3 (nd)
  - PNECs
    - 109-16-0 triethylen glycol dimethacrylate
      - marine water 0.0164 mg/l (nd)
      - sedim., dw, fre.wat. 1.85 mg/Kg (nd)
      - sedim., dw, mar.wat. 0.185 mg/Kg (nd)
      - soil,dw 0.274 mg/Kg (nd)
- Additional information: The lists that were valid during the compilation were used as basis.
- 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
9 Physical and Chemical Properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Pasty
      - Colour: White
    - 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.
Trade name: VENUS Diamond flow

10 Stability and Reactivity

- Reactivity
  - No further relevant information available.
- Chemical stability
  - Conditions to be avoided: No decomposition if used and stored 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
- Additional information
  - |

11 Toxicological Information

- Information on toxicological effects
  - Acute toxicity
    - 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: No irritant effect.
      - Serious eye damage/irritation: No irritant effect.
      - Respiratory or skin sensitisation: No sensitizing effect known.
    - Additional toxicological information:
      - The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.
      - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological Information

- 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)
    - 109-16-0 triethylen glycol dimethacrylate
      EC50/72h >100 mg/l (algae)
  - Persistence and degradability: No further relevant information available.
Trade name: VENUS Diamond flow

- Behaviour in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Avoid transfer into the environment.
- 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:
    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.

14 Transport information

- UN-Number
  - ADG, ADN, IMDG, IATA: Void
- UN proper shipping name
  - ADG, ADN, IMDG, IATA: Void
- Transport hazard class(es)
  - ADG, ADN, IMDG, IATA: Void
- Packing group
  - ADG, IMDG, IATA: Void
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.
- Transport/Additional information: -
- UN "Model Regulation": Void

15 Regulatory information

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
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.
  - 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
  - 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
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- *Data compared to the previous version altered.*