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

1.1 Product identifier
   · Trade name: Venus Diamond

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
   · 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 Sens. 1 H317 May cause an allergic skin reaction.
     Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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-determining components of labelling:
     2-Propenoic acid, 1,1'-(octahydro-4,7-methano-1H-indene-5,7-diyl) bis(methyleneoxycarbonylamino-2,1-ethanediyl) ester
diurethandimethacrylate
triethylene glycol dimethacrylate
     · Hazard statements
       H317 May cause an allergic skin reaction.
       H412 Harmful to aquatic life with long lasting effects.

   · Precautionary statements
     P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.

   · Additional information:
     Contains isocyanates. May produce an allergic reaction.

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

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

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Version number 4

Trade name: Venus Diamond

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures
  · Description:
    · Dangerous components:

| CAS: 945656-78-0 | 2-Propenoic acid, 1,1'-[(octahydro-4,7-methano-1H-indene-5,?-dylvbis(methyleneoxy)carbonylamino-2,1-ethanediyl)] ester | ≥10-<25% |
| CAS: 72869-86-4 | diurethandimethacrylate | ≥2.5-<5% |
| EINECS: 276-957-5 | Aquatic Chronic 2, H411 | |
| Reg.nr.: 01-2120751202-68-XXXX | Skin Sens. 1B, H317 | |
| CAS: 109-16-0 | triethylen glycol dimethacrylate | ≥1-5% |
| EINECS: 203-652-6 | Aquatic Acute 1, H400; Aquatic Chronic 2, H411 | |
| Reg.nr.: 01-2119969287-21-0000 | Skin Sens. 1B, H317 | |
| CAS: 131-57-7 | 2-Hydroxy-4-methoxy benzophenone | ≥0.25-<1% |
| EINECS: 205-031-5 | | |

· 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
  · 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.
    Seek immediate medical advice.

· 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
  Formation of toxic gases is possible during heating or in case of fire.

· 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: Dilute with much water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).
Send for recovery or disposal in suitable containers.

6.4 Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Please observe the additional instructions in the product's instructions for use.

· 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

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>109-16-0 triethylen glycol dimethacrylate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal, worker industr., l.te., syst.</td>
</tr>
<tr>
<td>Inhalative, worker industr., l.te., syst.</td>
</tr>
</tbody>
</table>

· PNECs

<table>
<thead>
<tr>
<th>109-16-0 triethylen glycol dimethacrylate</th>
</tr>
</thead>
<tbody>
<tr>
<td>marine water</td>
</tr>
<tr>
<td>sedim., dw, fre.wat.</td>
</tr>
<tr>
<td>sedim., dw, mar.wat.</td>
</tr>
<tr>
<td>soil, dw</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
    Instantly remove any soiled and impregnated garments.
    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
If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.
Check protective gloves prior to each use for their proper condition.

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: 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: > 165 °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 2.23 g/cm³
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- 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:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>72869-86-4 diurethandimethacrylate</td>
<td>LD50 &gt;5,000 mg/kg (rat) (OECD 401)</td>
<td>LD50 &gt;2,000 mg/kg (rat) (OECD 402)</td>
</tr>
<tr>
<td>109-16-0 triethylen glycol dimethacrylate</td>
<td>LD50 8,300 mg/kg (rat)</td>
<td>LD50 &gt;2,000 mg/kg (mouse)</td>
</tr>
<tr>
<td>131-57-7 2-Hydroxy-4-methoxy benzophenone</td>
<td>LD50 12,800 mg/kg (rat) (OECD 401)</td>
<td>LD50 &gt;16,000 mg/kg (rabbit) (OECD 402)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - Skin corrosion/iritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/iritation: 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.
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SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:
  - 72869-86-4 diurethandimethacrylate
    - LC50/96h: 10.1 mg/l (fish)
  - 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:
  - Do not allow product to reach ground water, water bodies or sewage system.
  - Danger to drinking water if even 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
  - 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: Void
  - Class

14.4 Packing group
- ADR, IMDG, IATA: Void

14.5 Environmental hazards:
- Marine pollutant: No

(Contd. on page 7)
Trade name: Venus Diamond

**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
  - H317 May cause an allergic skin reaction.
  - H400 Very toxic to aquatic life.
  - H411 Toxic to aquatic life with long lasting effects.
  - H412 Harmful to aquatic life with long lasting effects.

- 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
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Sens. 1: Skin sensitisation – Category 1
  - Skin Sens. 1B: Skin sensitisation – Category 1B
  - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
  - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- * Data compared to the previous version altered.