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

1.1 Product identifier
   · Trade name: Carboxylate Cement Liquid

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 Corr. 1A, H314. Causes severe skin burns and eye damage.

2.2 Labelling according to Regulation (EC) No 1272/2008
   The product is classified and labelled according to the CLP regulation.
   · Hazard pictograms
     GHS05
   · Signal word Danger
   · Hazard statements
     H314 Causes severe skin burns and eye damage.
   · Precautionary statements
     P260 Do not breathe dust/fume/gas/mist/vapours/spray.
     P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
     Rinse skin with water/shower.
     P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
     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.

(Contd. on page 2)
SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
  - Description: -
  - Dangerous components: Void
  - 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: No special measures required.
  - After skin contact: The product is not skin irritating.
  - 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.

- 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: 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).

- 6.4 Reference to other sections
  No dangerous materials are released.
  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.
SECTION 8: Exposure controls/personal protection

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**: 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 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**: 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**: Not absolutely necessary
  - **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**: Odourless
### Trade name: Carboxylate Cement Liquid

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Inflammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Self-inflammability</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product is not explosive.</td>
</tr>
<tr>
<td>Critical values for explosion</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Steam pressure at 20 °C</td>
<td>23 hPa</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>1.150 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Fully miscible</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>60.0 %</td>
</tr>
<tr>
<td>VOC EU</td>
<td>9 g/l</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Polyacrylsäure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 &gt; 5000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - Skin corrosion/irritation: Causes severe skin burns and eye damage.
  - Serious eye damage/irritation: Causes severe skin burns and eye damage.

- 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: No further relevant information available.

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.

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: Smaller quantities can be disposed with household garbage.

- European waste catalogue
  18 01 06 chemicals consisting of or containing dangerous substances

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
**Trade name:** Carboxylate Cement Liquid

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

## SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>· ADR, ADN, IMDG, IATA</td>
<td></td>
</tr>
</tbody>
</table>

| 14.2 UN proper shipping name | Void |
| · ADR, ADN, IMDG, IATA |      |

| 14.3 Transport hazard class(es) | Void |
| · ADR, ADN, IMDG, IATA |      |
| · Class |      |

| 14.4 Packing group | Void |
| · ADR, ADN, IMDG, IATA |      |

| 14.5 Environmental hazards: Marine pollutant | No |
| · Marine pollutant |      |

| 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 |      |
| · National regulations |      |
| · Water hazard class: Generally not hazardous for water. |      |

| 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.

**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
## Trade name: Carboxylate Cement Liquid

<table>
<thead>
<tr>
<th>CAS: Chemical Abstracts Service (division of the American Chemical Society)</th>
<th>(Contd. of page 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweis (Swiss Ordinance on volatile organic compounds)</td>
<td></td>
</tr>
<tr>
<td>LC50: Lethal concentration, 50 percent</td>
<td></td>
</tr>
<tr>
<td>LD50: Lethal dose, 50 percent</td>
<td></td>
</tr>
<tr>
<td>PBT: Persistent, Bioaccumulative and Toxic</td>
<td></td>
</tr>
<tr>
<td>vPvB: very Persistent and very Bioaccumulative</td>
<td></td>
</tr>
<tr>
<td>Skin Corr. 1A: Skin corrosion/irritation – Category 1A</td>
<td></td>
</tr>
</tbody>
</table>

- *Data compared to the previous version altered.*