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

1.1 Product identifier
   - Trade name: Technovit 2000 Inside Cure

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)6181 9689-2570 (Wehrheim)
   - Informing department: email: technik.wehrheim@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
     Flam. Liq. 2 H225 Highly flammable liquid and vapour.
     Eye Irrit. 2 H319 Causes serious eye irritation.

   - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
     F; Highly flammable
     R11: Highly flammable.

   - Information concerning particular hazards for human and environment:
     The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

   - Classification system:
     The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

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
     
     GHS02  GHS07

   - Signal word Danger
   - Hazard statements
     H225 Highly flammable liquid and vapour.
     H319 Causes serious eye irritation.
   - Precautionary statements
     P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
     P243 Take precautionary measures against static discharge.
     P403+P233 Store in a well-ventilated place. Keep container tightly closed.
     P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards -
   - Results of PBT and vPvB assessment
     - PBT: Not applicable.
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

- Description: -

- Dangerous components:

<table>
<thead>
<tr>
<th>EINECS: 200-578-6</th>
<th>Spiritus</th>
<th>&gt; 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119457610-43-XXXX</td>
<td>F R11</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2, H225; Eye Irrit. 2, H319</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 13472-08-7</th>
<th>2,2'-azobis[2-methylbutyronitrile]</th>
<th>0-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 236-740-8</td>
<td>Xn R22; F R11</td>
<td></td>
</tr>
<tr>
<td>Org. Perox. D, H242; Acute Tox. 4, H302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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. If skin irritation continues, consult a doctor.
- 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. 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.
- For safety reasons unsuitable extinguishing agents Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

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

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.

6.2 Environmental precautions:

Prevent material from reaching sewage system, holes and cellars.
Do not allow to enter drainage system, surface or ground water.
Trade name: Technovit 2000 Inside Cure

- **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**
  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**
  Wear protective equipment. Keep unprotected persons away.
  Keep containers tightly sealed.
  Ensure good ventilation/exhaustion at the workplace.
  - **Information about protection against explosions and fires:**
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and containers:** Store in cool location.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:**
      Store in cool, dry conditions in well sealed containers.

- **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.

<table>
<thead>
<tr>
<th>Component</th>
<th>Subcategory</th>
<th>DNELs</th>
<th>PNECs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritus</td>
<td>Oral</td>
<td>87 mg/Kg (nd)</td>
<td>seawater 0.96 mg/l (nd)</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>343 mg/Kg/d (nd)</td>
<td>marine water 0.79 mg/l (nd)</td>
</tr>
<tr>
<td></td>
<td>Inhalative</td>
<td>206 mg/Kg/d (nd)</td>
<td>STP 580 mg/l (nd)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1900 mg/m3 (nd)</td>
<td>sedim., dw, fre.wat. 3.6 mg/Kg (nd)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>950 mg/m3 (nd)</td>
<td>sedim., dw, mar.wat. 2.9 mg/Kg (nd)</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: Technovit 2000 Inside Cure

- 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 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/ the substance/ the preparation.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - 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:
        Fluorocarbon rubber (Viton)
        Nitrile rubber, NBR
        Chloroprene rubber, CR
  - 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: Fluid
    - Colour: Colourless
  - Smell: Characteristic
  - Odour threshold: Not determined.
  - pH-value: Not determined.

- Change in condition
  - Melting point/Melting range: Not determined
  - Boiling point/Boiling range: 78 °C

- Flash point: 12 °C

- Inflammability (solid, gaseous) Not applicable.

- Ignition temperature:
  - Decomposition temperature: Not determined.

- Self-inflammability: Product is not selfigniting.

- Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 26.06.2017 Revision: 26.06.2017
Version number 2

Trade name: Technovit 2000 Inside Cure

(Contd. of page 4)

- Critical values for explosion:
  - Lower: Not determined.
  - Upper: Not determined.

- Steam pressure: Not determined.

- Density at 20 °C 0.8028 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:
  - Solids content: 4.0 %

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

11.2 Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Spiritus</th>
<th>Oral LD50</th>
<th>Oral LC50/4 h</th>
<th>Inhalative LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritus</td>
<td>10470 mg/kg</td>
<td>20000 mg/l</td>
<td>337 mg/kg</td>
<td>8.9 mg/l</td>
</tr>
<tr>
<td>13472-08-7 2,2'-azobis[2-methylbutyronitrile]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - Skin corrosion/irritation Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation Causes serious eye irritation.

- Respiratory or skin sensitisation
  Based on available data, the classification criteria are not met.

(Contd. on page 6)
Trade name: Technovit 2000 Inside Cure

· 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:
    | Spiritus                      |
    | EC50/48h 12340 mg/l (daphnia) |
    | LC50/96h >10000 mg/l (fish)   |
    | 13472-08-7 2,2'-azobis[2-methylbutyronitrile] |
    | EC50/72h 67 mg/l (algae)      |
    | LC50/96h 123 mg/l (fish)      |
    | EC50 132 mg/l (daphnia)      |

· 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
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
    Disposal must be made according to official regulations.
  · Uncleaned packagings:
    · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number
  · ADR, IMDG, IATA UN1170
· 14.2 UN proper shipping name
  · ADR 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
  · IMDG ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Trade name: Technovit 2000 Inside Cure

### 14.3 Transport hazard class(es)
- **ADR**
  - **Class**: 3 (F1) Flammable liquids.
  - **Label**: 3

- **IMDG, IATA**
  - **Class**: 3 Flammable liquids.
  - **Label**: 3

### 14.4 Packing group
- ADR, IMDG, IATA
  - **Packing group**: II

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

### 14.6 Special precautions for user
- **Warning**: Flammable liquids.
  - **Kemler Number**: 33
  - **EMS Number**: F-E,S-D

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- **Transport/Additional information**: Not applicable.
  - **ADR**
    - **Limited quantities (LQ)**: 1L
    - **Excepted quantities (EQ)**: Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
      - **Transport category**: 2
      - **Tunnel restriction code**: D/E
  - **IMDG**
    - **Limited quantities (LQ)**: 1L
    - **Excepted quantities (EQ)**: Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation"**: UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 2012/18/EU
- Qualifying quantity (tonnes) for the application of lower-tier requirements: 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements: 50,000 t
- 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:
  - H225 Highly flammable liquid and vapour.
  - H242 Heating may cause a fire.
  - H302 Harmful if swallowed.
  - H319 Causes serious eye irritation.
  - R11 Highly flammable.
  - R22 Harmful if swallowed.

- 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
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Org. Perox. D: Organic peroxides – Type C/D
  - Acute Tox. 4: Acute toxicity – Category 4
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

* Data compared to the previous version altered.