1 Identification

· **Product identifier**
  
  · **Trade name:** iBOND Ceramic Primer
  
  · **Application of the substance / the mixture** Auxiliary for manufacture of dental prothesis
  
· **Details of the supplier of the safety data sheet**
  
  · **Manufacturer/Supplier:**
    Kulzer GmbH
    Leipziger Straße 2, 63450 Hanau (Germany)
    Tel.: +49 (0)800 4372522
  
  · **Information department:**
    Tel. +1 (800) 431-1785 Fax: +1 (800) 522-1545
e-mail: customer.servicehkna@kulzer-dental.com
  
  · **Emergency telephone number:**
    Emergency CONTACT (24-Hour-Number)
    GBK/Infotrac ID 105860: (domestic) 1 800 535 5053 or international (001) 352 323 3500

2 Hazard(s) identification

· **Classification of the substance or mixture**
  
  Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  STOT SE 3 H336 May cause drowsiness or dizziness.

· **Label elements**
  
  · **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  
  · **Hazard pictograms**
    
    GHS02
    GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
  
  propan-2-ol
  acetone

· **Hazard statements**
  
  Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

· **Precautionary statements**
  
  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Store locked up.

(Contd. on page 2)
Trade name: iBOND Ceramic Primer

- Classification system
  - NFPA ratings for USA (scale 0-4)
    - Health = 1
    - Fire = 3
    - Reactivity = 0
  - HMIS-Ratings (Scale 0-4)
    - HEALTH
      - Health = 1
    - FIRE
      - Fire = 3
    - REACTIVITY
      - Reactivity = 0

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
  - Description:
    - Dangerous components:
      - 67-63-0 propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336 75-90%
      - 67-64-1 acetone Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336 5-10%

- Additional information
  - For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
  - After inhalation
    - Supply fresh air; consult doctor in case of complaints.
  - After skin contact
    - Generally the product does not irritate the skin.
  - After eye contact
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing
    - Rinse out mouth and then drink plenty of water. If symptoms persist 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 spray. Fight larger fires with water spray or alcohol resistant foam.
  - Special hazards arising from the substance or mixture
    - Can form explosive gas-air mixtures.
    - Formation of toxic gases is possible during heating or in case of fire.
Trade name: iBOND Ceramic Primer

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  - Prevent seepage into sewage system, workpits and cellars.
  - Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).
  - Ensure adequate ventilation.
- Reference to other sections
  - No dangerous substances are released.
  - See Section 8 for information on personal protection equipment.

7 Handling and storage

- Handling
  - Precautions for safe handling: Keep receptacles tightly sealed.
  - Information about protection against explosions and fires:
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
- Conditions for safe storage, including any incompatibilities
  - Storage
    - Requirements to be met by storerooms and receptacles: Store in a 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 receptacles.
  - Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    - 67-63-0 propan-2-ol
      - PEL () 980 mg/m³, 400 ppm
      - REL () Short-term value: 1225 mg/m³, 500 ppm
        - Long-term value: 980 mg/m³, 400 ppm
      - TLV () Short-term value: 984 mg/m³, 400 ppm
        - Long-term value: 492 mg/m³, 200 ppm
    - 67-64-1 acetone
      - PEL () 2400 mg/m³, 1000 ppm
**Trade name:** iBOND Ceramic Primer

<table>
<thead>
<tr>
<th>REL (I)</th>
<th>590 mg/m³, 250 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV (I)</td>
<td>Short-term value: 1782 mg/m³, 750 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 1188 mg/m³, 500 ppm</td>
</tr>
</tbody>
</table>

**BEI**

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

- **Personal protective equipment**
  - **General protective and hygienic measures**
    - Avoid contact with the eyes.
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes and skin.
  - **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.
    - Check protective gloves prior to each use for their proper condition.

**Selection of the glove material**

- 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 through 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:**
  - Protective goggles are recommended.
  - Tightly sealed goggles.

- **Body protection:** Light weight protective clothing

**9 Physical and chemical properties**

**Information on basic physical and chemical properties**

- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Color: Colorless
  - **Odor:** Alcohol-like
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
43.0.7

- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: 55 °C (131 °F)

- Flash point: 5 °C (41 °F)

- Flammability (solid, gaseous) Not applicable.

- Ignition temperature: >400 °C (>752 °F)

- Decomposition temperature: Not determined.

- Auto igniting: Product is not selfigniting.

- Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- Explosion limits:
  - Lower: 2.0 Vol %
  - Upper: 12.0 Vol %

- Vapor pressure at 20 °C (68 °F): 48 hPa (36 mm Hg)

- Density at 20 °C (68 °F):
  - Relative density Not determined.
  - Vapor density Not determined.
  - Evaporation rate Not determined.

- Solubility in / Miscibility with
  - Water: Fully miscible

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:
  - dynamic: Not determined.
  - kinematic: Not determined.

- Solvent content:
  - Water: 4.0 %

- Other information No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.
- 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

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - LD/LC50 values that are relevant for classification:

  | 67-63-0 propan-2-ol | Oral LD50 | 4570 mg/kg (rat) |
  | Dermal LD50 | 13400 mg/kg (rab) |

(Contd. on page 6)
### 43.0.7

- **Inhalative LC50/4 h**: 30 mg/l (rat)
- **67-64-1 acetone**
- **Oral LD50**: 5800 mg/kg (rat)
- **Dermal LD50**: 20000 mg/kg (rabbit)

- **Primary irritant effect**:
  - **on the skin**: No irritant effect.
  - **on the eye**: Irritating effect.

- **Sensitization**: No sensitizing effects known.

- **Additional toxicological information**:
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  - **Irritant**

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 67-63-0 propan-2-ol 3
    - 80-62-6 methyl methacrylate 3
    - 102-71-6 2,2',2''-nitrilotriethanol 3
    - 7647-01-0 hydrogen chloride 3
    - 128-37-0 2,6-di-tert-butyl-p-cresol 3

  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.

  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity**:
    - **67-63-0 propan-2-ol**
      - EC50/72h >1000 mg/l (algae)
      - EC50/48h 13299 mg/l (daphnia)
      - LC50/96h 1400 mg/l (fish)
    - **67-64-1 acetone**
      - EC50/48h 6100 mg/l (daphnia)
      - LC50/96h 5540 mg/l (fish)

- **Persistence and degradability**
  No further relevant information available.

- **Behavior in environmental systems**:
  - **Bioaccumulative potential**
    No further relevant information available.
  - **Mobility in soil**
    No further relevant information available.

- **Additional ecological information**:
  - **General notes**:
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**
  - **PBT**: Not applicable.
  - **vPvB**: Not applicable.
Trade name: iBOND Ceramic Primer

13 Disposal considerations

- Waste treatment methods
  - Recommendation
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA UN1993

- UN proper shipping name
  - ADR 1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), ACETONE)
  - IMDG, IATA FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), ACETONE)

- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3
  - ADR
    - Class 3 (F1) Flammable liquids
    - Label 3
  - IMDG, IATA
    - Class 3 Flammable liquids
    - Label 3

- Packing group
  - DOT, ADR, IMDG, IATA II

(Contd. of page 6)
Trade name: iBOND Ceramic Primer

· Environmental hazards:
  · Marine pollutant: No

· Special precautions for user
  · Danger code (Kemler): Warning: Flammable liquids
  · EMS Number: 33 F-E, S-E

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  Not applicable.

· Transport/Additional information:

· UN "Model Regulation": UN1993, Flammable liquids, n.o.s., special provision 640D (Isopropanol (Isopropyl alcohol), Acetone), 3, II

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
  · SARA Section 355 (extremely hazardous substances)
    7647-01-0 hydrogen chloride

· Cancerogenity categories
  · TLV (Threshold Limit Value established by ACGIH)
    67-64-1 acetone A4
    80-62-6 methyl methacrylate A4
    128-37-0 2,6-di-tert-butyl-p-cresol A4

· GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms
    GHS02, GHS07

· Signal word Danger

· Hazard-determining components of labeling:
  propan-2-ol
  acetone

· Hazard statements
  Highly flammable liquid and vapor.
  Causes serious eye irritation.
  May cause drowsiness or dizziness.

· Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Store locked up.
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
  - H225 Highly flammable liquid and vapor.
  - H319 Causes serious eye irritation.
  - H336 May cause drowsiness or dizziness.

- Date of preparation / last revision 09/11/2017 / 2

- 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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - 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)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - REL: Recommended Exposure Limit
  - Flam. Liq. 2: Flammable liquids – 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.