1 Identification

- Product identifier
  - Trade name: Gluma Ceramic Primer

- Application of the substance / the mixture: Auxiliary for manufacture of dental prosthesis

- 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)
    ID 105860: (domestic) 1 800 535 5053 or international (001) 352 323 3500

2 Hazard identification

- Classification of the substance or mixture
  - Flammable Liquids - Category 2: H225 Highly flammable liquid and vapour.
  - Eye Irritation - Category 2A: H319 Causes serious eye irritation.
  - Specific Target Organ Toxicity - Single Exposure - Category 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](image) ![GHS07](image)

- Signal word: Danger

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

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

- Precautionary statements
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - Avoid breathing mist/vapours/spray.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If eye irritation persists: Get medical advice/attention.

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

Classification system
- NFPA ratings for USA (scale 0-4)
  - Health = 2
  - Fire = 3
  - Reactivity = 0

HMIS-Ratings (Scale 0-4)
- HEALTH Health = 2
- FIRE Fire = 3
- REACTIVITY Reactivity = 0

Other hazards - 

3 Composition/Information on ingredients
- Chemical characterization: Mixtures
- Description:
  - Dangerous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol</td>
<td>75-90% w/w *</td>
<td>Flammable Liquids - Category 2, H225; Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336</td>
</tr>
<tr>
<td>acetone</td>
<td>≥5-&lt;10% w/w *</td>
<td>Flammable Liquids - Category 2, H225; Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336</td>
</tr>
</tbody>
</table>

* Actual concentration ranges are withheld as a trade secret.

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 Immediately wash with water and soap and rinse thoroughly.
  - After eye contact
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing
    - If symptoms persist consult doctor.
    - Rinse out mouth and then drink plenty of water.

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.
- **Advice for firefighters**
  - **Protective equipment:** No special measures required.
  - **Additional information** -

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions**:
  - Dilute with plenty of water.
  - Prevent seepage into sewage system, workpits and cellars.
- **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 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling**
  - **Precautions for safe handling**
    - Keep receptacles tightly sealed.
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
    - Please observe the additional instructions in the product's instructions for use.
  - **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.
    - **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:

<table>
<thead>
<tr>
<th>Component</th>
<th>EL Short-term value</th>
<th>EL Long-term value</th>
<th>EV Short-term value</th>
<th>EV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 propan-2-ol</td>
<td>400 ppm</td>
<td>200 ppm</td>
<td>400 ppm</td>
<td>200 ppm</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>500 ppm</td>
<td>250 ppm</td>
<td>750 ppm</td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

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. 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 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
Safety Data Sheet
according to HPR, Schedule 1

Printing date 06/29/2021
Reviewed on 06/29/2021

Trade name: Gluma Ceramic Primer

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance: Fluid
    - Color: Colorless
    - Odor: Alcohol-like
    - Odor threshold: Not determined.
  - pH-value: Not determined.
  - 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.
  - 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
- Additional information: -
## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

- **LD/LC50 values that are relevant for classification:**

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50/DL50</th>
<th>Route</th>
<th>Value</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 propan-2-ol</td>
<td></td>
<td>Oral</td>
<td>5840 mg/kg (rat) (OECD 401)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dermal</td>
<td>&gt;12800 mg/kg (rab) (OECD 402)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhalative</td>
<td>≥10000 ppm /6h (rat) (OECD 403)</td>
<td></td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td></td>
<td>Oral</td>
<td>5800 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dermal</td>
<td>&gt;15800 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhalative</td>
<td>76 mg/l (rat)</td>
<td></td>
</tr>
</tbody>
</table>

#### Primary irritant effect:

- **on the eye:** Irritating effect.

#### Sensitization:

No sensitizing effects known.

### Additional toxicological information

#### Carcinogenic categories

- **IARC (International Agency for Research on Cancer)**
  - 67-63-0 propan-2-ol: 3

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

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

## 12 Ecological information

### Toxicity

#### Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC50/48h</th>
<th>EC50/96h</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 propan-2-ol</td>
<td></td>
<td>9640 mg/l (fish) (OECD 203)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;10000 mg/L (daphnia) (OECD 202)</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td></td>
<td>8800 mg/l (daphnia)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6210 mg/l (fish) (OECD 203)</td>
</tr>
</tbody>
</table>

#### Persistence and degradability

<table>
<thead>
<tr>
<th>Compound</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 propan-2-ol</td>
<td>3% /5d (nd) (EU C.5)</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>90.9 % /28d (nd) (OECD 301D)</td>
</tr>
</tbody>
</table>

#### Behavior in environmental systems:

- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
Trade name: Gluma Ceramic Primer

- **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.
  - **Other adverse effects** No further relevant information available.

### 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/TDG, ADR, IMDG, IATA UN1993
- **UN proper shipping name**
  - DOT/TDG Flammable liquids, n.o.s. (Isopropanol, Acetone)
  - ADR 1993 Flammable liquids, n.o.s., special provision 640D (Isopropanol, Acetone)
  - IMDG, IATA FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), ACETONE)
- **Transport hazard class(es)**
  - **DOT/TDG (Transport dangerous goods):**
    - **Class** 3 Flammable liquids
    - **Label** 3
  - **ADR**
    - **Class** 3 (F1) Flammable liquids

(Contd. on page 8)
### Trade name: Gluma Ceramic Primer

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

- **Packing group**
  - **DOT/TDG, ADR, IMDG, IATA** II

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

- **Special precautions for user**
  - **Warning:** Flammable liquids
  - **Hazard identification number (Kemler code):** 33
  - **EMS Number:** F-E, S-E

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

- **Transport/Additional information:**
  - **ADR**
    - **Excepted quantities (EQ)**
      - Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - **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"**: UN1993, Flammable liquids, n.o.s., special provision 640D (Isopropanol, Acetone), 3, II

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - No further relevant information available.
- **SARA**
  - **SARA Section 355 (extremely hazardous substances)**
    - 7647-01-0 hydrogen chloride
  - **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 vapour.
  H319 Causes serious eye irritation.
  H336 May cause drowsiness or dizziness.

- Date of the latest revision of the safety data sheet 06/29/2021 / 2

- Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  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)
  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

- * Data compared to the previous version altered.