1 Identification

- Product identifier
- Trade name: CLEARFIL CERAMIC PRIMER PLUS
- Article number: US215
- Application of the substance / the mixture Adhesive, dental ceramic/ Adhesive, dental metal
- Details of the supplier of the safety data sheet
  - Manufacturer: Kuraray Noritake Dental Inc.
    1621 Sakazu, Kurashiki, Okayama 710-0801, Japan
  - Contact information:
    Kuraray America, Inc.
    33 Maiden Lane, 6th Floor, New York,
    NY 10038 U.S.A.
    Tel: 800-879-1676
    Fax: 888-700-5200
    Website: www.kuraraydental.com

2 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

  - Dangerous components:
    | Chemical          | Percentage | Label         |
    |-------------------|------------|---------------|
    | 64-17-5 ethanol    | >80%       | Flam. Liq. 2, H225; Carc. 1A, H350 |
    | 2530-85-0 3-trimethoxysilylpropyl methacrylate | <5% | Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; H227 |

  - Other ingredients: 10-Methacryloyloxydecyl dihydrogen phosphate

3 Hazard(s) identification

- Classification of the substance or mixture
  GHS02 Flame
  Flam. Liq. 2. H225 Highly flammable liquid and vapor.

- Label elements
- GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms GHS02
- Signal word Danger
- Hazard statements
  H225 Highly flammable liquid and vapor.
- Precautionary statements
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  - P280 Wear protective gloves / eye protection / face protection.
  - P240 Ground/bond container and receiving equipment.
  - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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4 First-aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help. If symptoms persist consult doctor.

5 Fire-fighting measures

- 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: No further relevant information available.
- Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.

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. Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.
- 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 disposal information.

7 Handling and storage

- Precautions for safe handling: 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.
- Storage:
  - Requirements to be met by storerooms and receptacles: Store in a refrigerator (2-8 °C).
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8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace:
  64-17-5 ethanol

<table>
<thead>
<tr>
<th></th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
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<tbody>
<tr>
<td></td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
<td>Short-term value: 1880 mg/m³, 1000 ppm</td>
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</table>

- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work.
  - Breathing equipment: Not required.
- Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. 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 breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Tightly sealed goggles

9 Physical and chemical properties

- General Information
  - Appearance:
    - Form: Liquid
    - Color: Colorless
    - Odor: Alcohol-like
  - pH-value: Not applicable
- Change in condition
  - Melting point/Melting range: -114.5 °C (ethanol)
Boiling point/Boiling range: 78 °C (ethanol)
· Flash point: 13 °C (ethanol)
· Ignition temperature: 425.0 °C (ethanol)
· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:
  Lower: 3.5 Vol % (ethanol)
  Upper: 15.0 Vol % (ethanol)
· Vapor pressure: 59.0 hPa (20 °C, ethanol)
· Density: 0.8 g/cm³
· Vapour density 1.6 g/cm³ (ethanol, air=1)
· Solubility in / Miscibility with Water: Partly miscible.
· Partition coefficient (n-octanol/water): -0.32 (ethanol)
· Other information: No further relevant information available.

10 Stability and reactivity
· Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information
· Acute toxicity:
  · LD/LC50 values that are relevant for classification:
    64-17-5 ethanol
    Oral LD50 3450 mg/kg (mouse)
    7060 mg/kg (rat)
    Inhalative LC50/4 h 20000 mg/l (rat)
    LD50 3600 mg/kg (rat - intraperitoneal)
    2530-85-0 3-trimethoxysilylpropyl methacrylate
    Oral LD50 22600 mg/kg (rat)
    Dermal LD50 500 mg/kg (rabbit)
· Primary irritant effect:
  · on the skin: No irritant effect.
  · on the eye: No irritating effect.
  · Sensitization: No sensitizing effects known.
· Additional toxicological information:
· Carcinogenic categories
  · IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
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NTP (National Toxicology Program)
None of the ingredients is listed.

12 Ecological information

- Persistence and degradability: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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 UN1170
  - ADR, IMDG, IATA 1170
- UN proper shipping name
  - DOT Ethanol, mixture
  - ADR 1170 Ethanol (Ethyl alcohol), mixture
  - IMDG ETHANOL (ETHYL ALCOHOL), mixture
  - IATA ETHANOL, mixture
- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3
  - ADR, IMDG, IATA
    - Class 3 Flammable liquids
    - Label 3
    - Packing group DOT, ADR, IMDG, IATA II
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| · Environmental hazards: | · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E-S-D |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | UN1170, Ethanol (Ethyl alcohol), mixture, 3, II |

15 Regulatory information

- **Section 355 (extremely hazardous substances):**
  None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**
  None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**
  All ingredients are listed.

- **Proposition 65**

  - **Chemicals known to cause cancer:**
    None of the ingredients is listed.

  - **Chemicals known to cause reproductive toxicity for females:**
    None of the ingredients is listed.

  - **Chemicals known to cause reproductive toxicity for males:**
    None of the ingredients is listed.

  - **Chemicals known to cause developmental toxicity:**
    None of the ingredients is listed.

- **Cancerogenity categories**

  - **EPA (Environmental Protection Agency):**
    None of the ingredients is listed.

  - **TLV (Threshold Limit Value established by ACGIH):**
    64-17-5 ethanol A4

  - **NIOSH-Ca (National Institute for Occupational Safety and Health):**
    None of the ingredients is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Version:** 1

- **Relevant phrases**
  H225 Highly flammable liquid and vapor.
  H227 Combustible liquid.
  H315 Causes skin irritation.
  H319 Causes serious eye irritation.
  H335 May cause respiratory irritation.
  H350 May cause cancer.
**Abbreviations and acronyms:**
- Flam. Liq. 2: Flammable liquids, Hazard Category 2
- Flam. Liq. 4: Flammable liquids, Hazard Category 4
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
- Carc. 1A: Carcinogenicity, Hazard Category 1A
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3