1 Identification

- Product identifier
  - Trade name: TEETHMATE F-1 (Opaque)
  - Article number: US052-O
  - Relevant identified uses of the substance or mixture and uses advised against
    No further relevant information available.
  - Application of the substance / the mixture Dental sealing material

- 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
  - Emergency telephone number:
    For chemical emergency spill, leak, fire, exposure or accident
    Call CHEMTREC day and night
    Within USA and Canada: 1-800-424-9300 CCN706984 or
    +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- Classification of the substance or mixture
  GHS07
  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Irrit. 2A  H319  Causes serious eye irritation.
  Skin Sens. 1  H317  May cause an allergic skin reaction.
  STOT SE 3  H335  May cause respiratory irritation.

- Label elements
  - GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
  - Signal word Warning
  - Hazard-determining components of labeling:
    triethylene glycol dimethacrylate
    2-hydroxyethyl methacrylate
  - Hazard statements
    H315 Causes skin irritation.
    H319 Causes serious eye irritation.
    H317 May cause an allergic skin reaction.
    H335 May cause respiratory irritation.

- Precautionary statements
  P261  Avoid breathing dust/fume/gas/mist/vapors/spray
  P280  Wear protective gloves / eye protection / face protection.
  P304+P340  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  P305+P351+P338  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P312  Call a POISON CENTER/doctor if you feel unwell.

(Contd. on page 2)
Trade name: TEETHMATE F-1 (Opaque)

- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

3 Composition/information on ingredients

- Chemical characterization: Substances None
- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>109-16-0 triethylene glycol dimethacrylate</td>
<td>40-60%</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

- Other ingredients:
  - 10-Methacryloyloxydecyl dihydrogen phosphate
  - Methacryloylfluoride-methyl methacrylate copolymer
  - Hydrophobic aromatic dimethacrylate
  - Colloidal silica
  - dl-Camphorquinone
  - Initiators
  - Accelerators
  - Pigments

4 First-aid measures

- Description of first aid measures
  - After inhalation: Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
  - 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: Do not induce vomiting; immediately call for medical help. If symptoms persist consult doctor.
  - Information for doctor: Most important symptoms and effects, both acute and delayed 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 No further relevant information available.
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- 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

- Handling:
  - Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
  - Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: Store in a refrigerator (2-8 °C).
    - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
    Protect from heat and direct sunlight.
  - 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:
    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 creation were used as basis.
- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      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:
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**

  **Protective gloves**

  The glove material has to be impermeable and resistant to the product/substance/preparation. Due to missing tests no recommendation to the glove material can be given for the product/substance/preparation/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 break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

  **Tightly sealed goggles**

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**9 Physical and chemical properties**

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>Form: Liquid</td>
</tr>
<tr>
<td>Color: White</td>
</tr>
<tr>
<td>Odor: Odorless</td>
</tr>
</tbody>
</table>

| **pH-value:** Not determined                           |

| **Change in condition**                               |
| Melting point/Melting range: -12 °C (2-hydroxyethyl methacrylate) |
| Boiling point/Boiling range: 205 °C (2-hydroxyethyl methacrylate) |

| **Flash point:** 97 °C (2-hydroxyethyl methacrylate) |

| **Ignition temperature:** Not determined               |

| **Decomposition temperature:** Not determined.         |

| **Danger of explosion:** Product does not present an explosion hazard. |

| **Explosion limits:**                                  |
| Lower: Not determined                                  |
| Upper: Not determined                                  |

| **Oxidizing properties**                               |
| Not determined                                         |

| **Vapor pressure:** Not determined                      |

| **Density:** 1.1 g/cm³                                  |
| Relative density Not determined.                        |
| Vapor density Not determined.                           |
| Evaporation rate Not determined.                       |
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided**: No decomposition if used and stored according to specifications.
- **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**: Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:
  - **LD/LC50 values that are relevant for classification**:
    | 868-77-9 2-hydroxyethyl methacrylate |
    | Oral | LD50 |
    | 4680 mg/kg (guinea pig) |
    | 3275 mg/kg (mouse) |
    | 5050 mg/kg (rat) |
  - **Primary irritant effect**:
    - **on the skin**: Irritant to skin and mucous membranes.
    - **on the eye**: Irritating effect.
    - **Sensitization**: Sensitization possible through skin contact.
  - **Additional toxicological information**:
    The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    None of the ingredients is listed.
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity**: No further relevant information available.
  - **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.
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, ADN, IMDG, IATA: Void

- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA: Void

- Packing group
  - DOT, ADR, ADN, IMDG, IATA: Void

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Not applicable.

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

- UN "Model Regulation": Void

15 Regulatory information

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

  - 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.
Trade name: TEETHMATE F-1 (Opaque)

- **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)**
    None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* **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.

- **Relevant phrases**
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H319 Causes serious eye irritation.
  H335 May cause respiratory irritation.

- **NFPA ratings (scale 0 - 4)**
  Health = 1
  Fire = 1
  Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  Health = 1
  Fire = 1
  Reactivity = 0

- **Abbreviations and acronyms:**
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  Skin Sens. 1: Skin sensitisation – Category 1
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

  * Data compared to the previous version altered.