1 Identification

- **Product identifier**
  - **Trade name:** K-ETCHANT GEL
  - **Article number:** US021
- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
- **Application of the substance / the mixture** Dental etching composite

- **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**
  - GHS05 Corrosion
    - Skin Corr. 1B H314 Causes severe skin burns and eye damage.
    - Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**
  - **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms** GHS05
  - **Signal word** Danger

- **Hazard-determining components of labeling:**
  - phosphoric acid

- **Hazard statements**
  - H314 Causes severe skin burns and eye damage.

- **Precautionary statements**
  - **P260** Do not breathe dusts or mists.
  - **P280** Wear protective gloves/protective clothing/eye protection/face protection.
  - **P303+P361+P353** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - **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.
  - **P310** Immediately call a POISON CENTER/doctor.
  - **P321** Specific treatment (see on this label).
  - **P363** Wash contaminated clothing before reuse.
  - **P405** Store locked up.

(Contd. on page 2)
Trade name: K-ETCHANT GEL

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

#### Dangerous components:

| 7664-38-2 phosphoric acid | Skin Corr. 1B, H314; Acute Tox. 4, H302 | 35-45% |

- Other ingredients:
  - Colloidal silica
  - Water
  - Dyes

### 4 First-aid measures

- Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: 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. Then consult a doctor.
- After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a 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: No further relevant information available.
- Advice for firefighters
- 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).
  - Use neutralizing agent.
  - Dispose contaminated material as waste according to item 13.

(Contd. on page 3)
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 cool location (2-25 °C).
    - **Information about storage in one common storage facility:**
      Store away from oxidizing agents.
      Store away from reducing agents.
  - **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.

<table>
<thead>
<tr>
<th>7664-38-2 phosphoric acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
</tr>
</tbody>
</table>
| REL | Short-term value: 3 mg/m³  
   | Long-term value: 1 mg/m³  |
| TLV | Short-term value: 3 mg/m³  
   | Long-term value: 1 mg/m³  |

- **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.
Trade name: K-ETCHANT GEL

- Protection of hands:
  
  Protective gloves

  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 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

9 Physical and chemical properties

- Information on basic physical and chemical properties

  General Information

  Appearance:

  Form: Gel
  Color: Red
  Odor: Odorless

  pH-value: 1.8

  Change in condition

  Melting point/Melting range: 42.4 °C (phosphoric acid)
  Boiling point/Boiling range: Not determined

  Flash point: Not determined

  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: 1.3 g/cm³

  Relative density Not determined

  Vapor density Not determined

  Evaporation rate Not determined
Trade name: K-ETCHANT GEL

- Solubility in / Miscibility with Water: Partly miscible.
- Partition coefficient (n-octanol/water): Not determined
- Viscosity: Not determined
- Other information: No further relevant information available.

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:
    7664-38-2 phosphoric acid
    Oral LD50 1250 mg/kg (mouse)
    1250 mg/kg (rat)
    Dermal LD50 2740 mg/kg (rabbit)
  - Primary irritant effect:
    - on the skin: Caustic effect on skin and mucous membranes.
    - on the eye: Strong caustic effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The product shows the following dangers according to internally approved calculation methods for preparations:
    Corrosive
    Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
  - 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.
Trade name: K-ETCHANT GEL

- **Mobility in soil**: 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.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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: UN1805
  - ADR, IMDG, IATA: 1805

- **UN proper shipping name**
  - ADR: 1805 PHOSPHORIC ACID, SOLUTION
  - IMDG, IATA: PHOSPHORIC ACID, SOLUTION

- **Transport hazard class(es)**
  - DOT
    - **Class**: 8 Corrosive substances
    - **Label**: 8

  - ADR, IMDG, IATA
    - **Class**: 8 Corrosive substances
    - **Label**: 8

- **Packing group**
  - DOT, ADR, IMDG, IATA: III
Trade name: K-ETCHANT GEL

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

- **Special precautions for user**
  - Warning: Corrosive substances
  - Danger code (Kemler): 80
  - EMS Number: F-A,S-B

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

- **UN "Model Regulation":**
  - UN1805; PHOSPHORIC ACID, SOLUTION; 8; III

---

### 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):
    - 7664-38-2 phosphoric acid
  - **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):**
    - 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**
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.

(Contd. on page 8)
Trade name: K-ETCHANT GEL

- NFPA ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- HMIS-ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

- Abbreviations and acronyms:
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1

* Data compared to the previous version altered.