SECTION 1: Identification of the substance/preparation and of the company/undertaking

1.1. Product identifier
Product code : UX/10947
Product name : Ultra-Etch®
Product description : Phosphoric Acid dental etchant

1.2. Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses : Professional Dental Acid Etching Solution

1.3. Details of the supplier of the safety data sheet
Manufacturer
Ultradent Products, Inc.
505 W. 10200 S.
South Jordan, UT 84095

Distributor
Ultradent Products GmbH
Am Westhover Berg 30
51149 Cologne Germany
Email: infoDE@ultradent.com
Emergency Phone : +49(0)2203-35-92-0

1.4. Emergency telephone number
CHEMTREC (NORTH AMERICA) :(800) 424 - 9300
(INTERNATIONAL) :+1(703) 527 - 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Directive 1999/45/EC
: The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Danger symbols : C
R phrases : R34
Classification according to Regulation (EC) No 1272/2008 [CLP]
Health : Skin Corrosion, Category 1B

2.2. Label elements
Classification according to Directive 1999/45/EC
Hazard pictogram(s) : C
Corrosive
R&S statement(s) : R34: Causes burns.
Classification according to Regulation (EC) No 1272/2008 [CLP]
Hazard pictogram(s) : Corrosive

Signal Word : DANGER
Hazard statement(s) : H314: Causes severe skin burns and eye damage.
Precautionary statement(s)


Response : P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P315: Get immediate medical advice/attention.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P360: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P363: Wash contaminated clothing before reuse.
P301: IF SWALLOWED:
P310: Immediately call a POISON CENTER or doctor/physician.
P330: Rinse mouth.
P331: Do NOT induce vomiting.

Storage : P273: Avoid release to the environment.

2.3. Other hazards

Immediate concerns : Corrosive. Will cause eye burns and permanent tissue damage.

SECTION 3: Composition / information on ingredients

3.1. Substances
Not Applicable

3.2. Mixtures
SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010
Dental Use

Date Issued : 09/06/2012
SDS No : 7-001.15
Date Revised : 12/22/2015
Revision No : 16

Ultra-Etch®

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>EINECS No.</th>
<th>wt.%</th>
<th>Classification according to Directive 67/548/EEC</th>
<th>Classification according to Regulation(EC) No 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>231-633-2</td>
<td>&lt; 40</td>
<td>C; R34</td>
<td>Skin Corr.,Cat. 1B; H314</td>
</tr>
<tr>
<td>Cobalt aluminate blue spinel</td>
<td>1345-16-0</td>
<td>310-193-6</td>
<td>&lt; 1</td>
<td>R36/37/38; R22</td>
<td>Skin Irr.,Cat. 2; Eye Irr.,Cat. 2; STOT SE,Cat. 3; H315; H319; H335</td>
</tr>
</tbody>
</table>

For full text of H-statements and R-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Following eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

Following skin: Remove contaminated clothing. Wash with soap and water.

Following ingestion: If swallowed, rinse mouth with water, Do NOT Induce Vomiting. Give victim a glass of water or milk. Call a physician or poison control center if you feel unwell.

Following inhalation: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

4.2. Most important symptoms and effects, both acute and delayed

Eyes: Causes severe eye burns.
Skin: Corrosive, causes skin burning.
Ingestion: Harmful if swallowed.
Inhalation: None expected for this product.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician: Corrosive

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Extinguishing media: Please see Fire Fighting Equipment under Section 5.3.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Phosphine, oxides of phosphorous, hydrogen gas
5.3. Advice for firefighters

**Fire fighting procedures**
General: Evacuate all personnel; use protective equipment for fire-fighting. Use self-contained breathing apparatus when the product is involved in fire.

**Fire fighting equipment**
The product is not combustible. Substance does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition. Use appropriate media for adjacent fire. Cool containers with water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures
**General procedures**
Refer to Section 8 for Personal Protective Equipment.

#### 6.2. Environmental precautions
**Water spill**
Do not allow to enter sewers or drains that may lead to waterways.

#### 6.3. Methods and material for containment and cleaning up
**Small spill**
Clean up spills immediately, observing precautions in Protective Equipment section.

**Large spill**
Absorb with inert, damp non-combustible material, then flush area with water.

#### 6.4. Reference to other sections
**Reference to other sections**
Not Applicable

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
**General procedures**
Avoid contact with eyes, skin and clothing.

**Handling**
Use suitable protective equipment.

**Storage**
See product labeling.

#### 7.2. Conditions for safe storage, including any incompatibilities
**Shelf life**
See product labeling

#### 7.3. Specific end use(s)
**Specific end use(s)**
Professional Dental Acid Etching Solution

### SECTION 8: Exposure controls / personal protection

#### 8.1. Control parameters
**Control parameters**
Not Determined

#### 8.2. Exposure controls
**Eye/face protection**
Wear eye protection

**Skin protection**
Wear suitable protective clothing and gloves.

**Respiratory protection**
Good general ventilation should be sufficient to control airborne levels.

### SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Gel</td>
</tr>
<tr>
<td>Colour</td>
<td>Blue</td>
</tr>
<tr>
<td>Odour</td>
<td>Odorless or no characteristic odor</td>
</tr>
<tr>
<td>pH</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Partially Soluble</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent volatile</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stable</td>
</tr>
</tbody>
</table>

10.2. Chemical stability

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stable when stored and handled under recommended conditions.</td>
</tr>
</tbody>
</table>

10.3. Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Hazardous polymerization</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>

10.4. Conditions to avoid

<table>
<thead>
<tr>
<th>Conditions to avoid</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong bases, metals, excess heat, exposure to moist air or water</td>
</tr>
</tbody>
</table>

10.5. Incompatible materials

<table>
<thead>
<tr>
<th>Incompatible materials</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong caustics, most metals.</td>
</tr>
</tbody>
</table>

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Hazardous decomposition products</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phosphine, oxides of phosphorous, hydrogen gas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional information</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reacts with bases to form phosphate salts and is corrosive (especially when hot) to many metals and alloys. Liberates explosive hydrogen gas when reacting with chlorides and stainless steel, and reacts violently with sodium tetraphosphoborate. Forms flammable gases with sulfides, mercaptans, cyanides, and aldehydes. Also forms toxic fumes with cyanides, sulfides, fluorides, organic peroxides, and halogenated organics.</td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute Notes</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Device is a strong acid and is extremely toxic. It is to be used only as directed with PPE, and only by licensed dental professionals.</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aquatic toxicity (acute)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Do not allow to enter sewers or drains that may lead to waterways.</td>
</tr>
</tbody>
</table>
### SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

Dental Use

**Ultra-Etch®**

<table>
<thead>
<tr>
<th>96-hour LC&lt;sub&gt;50&lt;/sub&gt;</th>
<th>Not Determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>48-hour EC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Not Determined</td>
</tr>
<tr>
<td>96-hour EC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**Persistence and degradability**: Not Determined

12.3. Bioaccumulative potential

**Bioaccumulative potential**: Not Determined

12.4. Mobility in soil

**Mobility in soil**: Not Determined

12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**: Not Determined

12.6. Other adverse effects

**Environmental data**: Do not flush to sewer.

### SECTION 13: Disposal considerations

13.1. Waste treatment methods


### SECTION 14: Transport information

14.1. UN number

**UN number**: 1760

14.2. UN proper shipping name

**UN proper shipping name**: Corrosive liquid, n.o.s. (Phosphoric acid mixture)

14.3. Transport hazard class(es)

**Primary hazard class/division**: 8

**Hazard classification**: 8

14.4. Packing group

**Packing group**: III

14.5. Environmental hazards

**Marine pollutant #1**: N/A

14.6. Special precautions for user

**ADR - road**: N/A

**RID - rail**: N/A

**IMDG - sea**: N/A

**IATA - air**: N/A

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk**: N/A
SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010
Dental Use

Ultra-Etch®

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

RoHS : Please refer to Medical Devices Directive 93/42/EEC

15.2. Chemical safety assessment

Chemical safety assessment : See Section 11
Additional information : IARC has identified cobalt and cobalt compounds as "possibly carcinogenic" as a group, however IARC did not specifically identify the cobalt compound in this product as a possible carcinogen.

OSHA- Select Carcinogens: Present

SECTION 16: Other information

Relevant R-phrases and/or H-statements (number and full text) :

- R22: Harmful if swallowed.
- R34: Causes burns.
- R36/37/38: Irritating to eyes, respiratory system and skin.
- Eye Irr., Cat. 2: Eye Irritation, Category 2
- STOT SE, Cat. 3: Target Organ Toxicity (Single exposure), Category 3
- Skin Corr., Cat. 1B: Skin Corrosion, Category 1B
- Skin Irr., Cat. 2: Skin Irritation, Category 2
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

Prepared by :
Anu Kattoju

Revision summary :
This SDS replaces the 10/19/2015 SDS. Revised:

General statements :
N/A = Not Applicable

FOR DENTAL USE ONLY: Use as directed. The information and recommendations are taken from sources (raw material SDS(s) and manufacturer's knowledge) believed to be accurate; however, the manufacturer makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.