

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

077640089

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

077340425 077640147 077640154 077640162 077640188

**SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

Dental Use



Date Issued : 09/06/2012

SDS No : 7-001.13

Date Revised : 03/18/2015

Revision No : 14

**Ultra-Etch®****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**

This mixture contains Phosphoric Acid. This material is considered hazardous as defined by the OSHA Hazard Communication Standard (29 CFR 1819.1200)

**Classification according to Directive 1999/45/EC**

**Hazard pictogram(s)** : C



Corrosive

**R&S statement(s)** : R34: Causes burns.

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

**ULTRADENT**  
 PRODUCTS, INC.

Date Issued : 09/06/2012  
 SDS No : 7-001.13  
 Date Revised : 03/18/2015  
 Revision No : 14

**Ultra-Etch®**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

**Hazard pictogram(s)**



Corrosive

**Signal Word**

: WARNING

**Hazard statement(s)**

: H314: Causes severe skin burns and eye damage.

**Precautionary statement(s)**

**Prevention**

: P280: Wear protective gloves/protective clothing/eye protection/face protection.

**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.  
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
 P332+P313: If skin irritation occurs: Get medical advice/attention.  
 P301: IF SWALLOWED:  
 P310: Immediately call a POISON CENTER or doctor/physician.  
 P331: Do NOT induce vomiting.

**Storage**

: P273: Avoid release to the environment.

**Disposal**

: P501: Dispose of in compliance with governmental regulation.(EC 1975L0442-20/11/2003)

**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**

Chemical Name	CAS	EINECS No.	Wt. %	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No 1272/2008 [CLP]
Phosphoric Acid	7664-38-2	231-633-2	< 45	C; R34	Skin Corr., Cat. 1B; H314

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

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

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



**Date Issued :** 09/06/2012  
**SDS No :** 7-001.13  
**Date Revised :** 03/18/2015  
**Revision No :** 14

**Ultra-Etch®**

- 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** : Wash with soap and water. Get medical attention if irritation develops or persists.
- 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 immediately. Never give anything by mouth to an unconscious person.
- 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** : Not Determined
- Explosion hazards** : Not Determined
- Fire explosion** : Not Determined
- Sensitive to static discharge** : Not Determined
- Sensitivity to impact** : Not Determined

**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** : Non-combustible.

**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**

**SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

Dental Use



Date Issued : 09/06/2012

SDS No : 7-001.13

Date Revised : 03/18/2015

Revision No : 14

**Ultra-Etch®**

**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**

**Physical state** : Gel

**Colour** : Blue

**Odour** : Odorless or no characteristic odor

**pH** : < 1

**Solubility in water** : Partially soluble in water.

**9.2. Other information**

**Percent volatile** : Not Determined

**SECTION 10: Stability and reactivity**

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



**Date Issued** : 09/06/2012  
**SDS No** : 7-001.13  
**Date Revised** : 03/18/2015  
**Revision No** : 14

**Ultra-Etch®**

**10.1. Reactivity**

**Reactivity** : Stable

**10.2. Chemical stability**

**Chemical stability** : Stable when stored and handled under recommended conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous polymerization** : None

**10.4. Conditions to avoid**

**Conditions to avoid** : Avoid strong bases, Metals. Excess heat, exposure to moist air or water.

**10.5. Incompatible materials**

**Incompatible materials** : Strong caustics, most metals.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** : Phosphine, oxides of phosphorous, hydrogen gas

**Additional information** : 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 tetrahydroborate. Forms flammable gases with sulfides, mercaptans, cyanides, and aldehydes. Also forms toxic fumes with cyanides, sulfides, fluorides, organic peroxides, and halogenated organics.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute**

**Notes** : 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.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Toxicity** : Not Determined

**Aquatic toxicity (acute)**

**96-hour LC<sub>50</sub>** : Not Determined

**48-hour EC<sub>50</sub>** : Not Determined

**96-hour EC<sub>50</sub>** : Not Determined

**12.2. Persistence and degradability**

**Persistence and degradability** : Not Determined

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** : Not Determined

**SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

Dental Use



**Date Issued :** 09/06/2012  
**SDS No :** 7-001.13  
**Date Revised :** 03/18/2015  
**Revision No :** 14

**Ultra-Etch®****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** : Not defined**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal method** : Dispose of in compliance with governmental regulation.(EC 1975L0442-20/11/2003)**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**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

**SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

Dental Use



Date Issued : 09/06/2012

SDS No : 7-001.13

Date Revised : 03/18/2015

Revision No : 14

**Ultra-Etch®****SECTION 16: Other information****Relevant R-phrases and/or H-statements (number and full text)**

: R34: Causes burns.  
 Skin Corr., Cat. 1B: Skin Corrosion, Category 1B  
 H314: Causes severe skin burns and eye damage.

**Prepared by**

: Anu Kattoju

**Revision summary**

: This SDS replaces the 02/25/2015 SDS. Revised: **Section 1:**  
 . **Section 2:** . **Section 8:** PERSONAL PROTECTIVE EQUIPMENT -  
 SKIN. **Section 10:** HAZARDOUS POLYMERIZATION.

**General statements**

: N/A= Not Applicable

**Manufacturer disclaimer**

: 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.



**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 10/05/2021

Reviewed on 08/22/2018

**1 Identification**

- **Product identifier**
- **Trade name:** Ultra-Etch™ & Opal™ Etch
- **Article number:** SDS 7-001.20, 10947
- **Application of the substance / the mixture** Professional Dental Acid Etching Solution
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Ultradent Products Inc.  
505 W. Ultradent Drive (10200 S)  
South Jordan, UT 84095-3942  
USA  
onlineordersupport@ultradent.com
- **Information department:** Customer Service
- **Emergency telephone number:**  
CHEMTREC (NORTH AMERICA) : (800) 424-9300  
(INTERNATIONAL) : +(703) 527-3887

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** GHS05, GHS07, GHS08
- **Signal word** Danger
- **Health Hazard-determining components of labeling:**  
Phosphoric Acid
- **Hazard statements**  
Harmful if inhaled.  
Causes severe skin burns and eye damage.  
Suspected of damaging fertility or the unborn child.
- **Precautionary statements**  
P201 Obtain special instructions before use.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

**Trade name: Ultra-Etch™ & Opa™ Etch**

(Contd. of page 1)

- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dusts or mists.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- 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.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	*3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

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

- **Dangerous components:**

7664-38-2	Phosphoric Acid ⚠ Acute Tox. 1, H330; ⚠ Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	≥25-<40%
25322-68-3	Polyethylene Glycol	1-10%
	Trade Secret Alternative CAS number: 7631-86-9	1-10%
	Dimethicone ⚠ Repr. 2, H361; STOT RE 2, H373	≥0.1-<10%

### 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

(Contd. on page 3)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

**Trade name: Ultra-Etch™ & Opa™ Etch**

(Contd. of page 2)

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. 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:**

If swallowed in large quantities seek medical attention.

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:**

Dry Chemical

Carbon dioxide

Alcohol resistant foam

Water spray

Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**

Phosphine, oxides of phosphorous, hydrogen gas

During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

General: Evacuate all personnel.

Use fire extinguishing methods suitable to surrounding conditions.

· **Protective equipment:**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Mouth respiratory protective device.

### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** 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.

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.

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

Trade name: Ultra-Etch™ &amp; Opa™ Etch

(Contd. of page 3)

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
*Safety glasses should be used by the patient and doctor. Use equipment for eye protection tested and approved under appropriate standards such as ANSI Z87.1*  
*Avoid contact with eyes, skin, and clothing.*  
*Ensure good ventilation/exhaustion at the workplace.*  
*Open and handle receptacle with care.*  
*Prevent formation of aerosols.*
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
*Store only in the original receptacle.*  
*Provide ventilation for receptacles.*
- **Information about storage in one common storage facility:**  
*Store away from water.*  
*Store away from metals.*
- **Further information about storage conditions:**  
*Store in a cool place.*  
*See product labelling.*  
*Keep receptacle tightly sealed.*
- **Specific end use(s)** *Professional Dental Acid Etching Solution*

## 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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.*  
*At this time, the remaining constituent has no known exposure limits.*

<b>7664-38-2 Phosphoric Acid</b>	
PEL	Long-term value: 1 mg/m <sup>3</sup>
REL	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
<b>25322-68-3 Polyethylene Glycol</b>	
WEEL	Long-term value: 10 mg/m <sup>3</sup> (H); MW>200
<b>Trade Secret</b>	
TWA	Short-term value: 0.8 mg/m <sup>3</sup>

- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
*Do not eat or drink while working.*

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

**Trade name: Ultra-Etch™ & Opa™ Etch**

(Contd. of page 4)

When using do not smoke.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 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/ 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 is based on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of 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:**

Safety glasses should be used and by the patient and doctor. Use equipment for eye protection tested and approved under appropriate standards such as ANSI Z87.1



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Gel
<b>Color:</b>	Blue
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value at 20 °C:** <1

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C

· **Flash point:** Not applicable

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

Trade name: Ultra-Etch™ &amp; Opa™ Etch

(Contd. of page 5)

· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	1.3 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined
· <b>Solvent content:</b>	
<b>Water:</b>	<60 %
<b>VOC content:</b>	0.00 %
	0.0 g/l / 0.00 lb/gal
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	<20.0 %
· <b>Other information</b>	Refractive Index 34-37 Brix

## 10 Stability and reactivity

- **Reactivity** Stable
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**  
Water, Moist Air  
Extreme heat and open flames.
- **Incompatible materials:** Strong caustics, most metals
- **Hazardous decomposition products:** Phosphine, oxides of phosphorous, hydrogen gas
- **Additional information:**  
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 tetrahydroborate. Forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. Also forms toxic fumes with cyanides, sulfides, fluorides, organic peroxides and halogenated organics

US

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

Trade name: Ultra-Etch™ &amp; Opa™ Etch

(Contd. of page 6)

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

**ATE (Acute Toxicity Estimate)**

Oral	LD50	4,358 mg/kg (rat)
Inhalative	LC50/4 h	1.2 mg/l (rabbit)

**7664-38-2 Phosphoric Acid**

Oral	LD50	1,530 mg/kg (rat)
Dermal	LD50	2,740 mg/kg (rabbit)
Inhalative	LC50/4 h	0.42225 mg/l (rabbit)

**25322-68-3 Polyethylene Glycol**

Oral	LD50	19,600 mg/kg (Guinea pig)
		17,300 mg/kg (mouse)
		>10,000 mg/kg (rat)
Dermal	LC50 Fish	>100 mg/l (Fish)
	LD50	>20,000 mg/kg (rabbit)
	LC50(Daphnia magna)	>10,000 mg/l (Water Flea) (Toxicity to aquatic invertebrates)

**Trade Secret**

Oral	LD50	>15,000 mg/kg (mouse)
		>3,300 mg/kg (rat)
		>10,000 mg/l (Fish) (Toxicity to fish)
Dermal	LD50	>5,000 mg/kg (rabbit)
	LC50/4 h	0.139 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Strong 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:

Harmful

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)**

1345-16-0	Dark Blue Pigment	2B
68186-87-8	Cobalt Zinc Aluminate Blue Spinel	2B
68186-85-6	Cobalt Titanate Green Spinel	2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

**Trade name: Ultra-Etch™ & Opa™ Etch**

(Contd. of page 7)

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

**Trade Secret**

EC50 >1,000 mg/kg (daphnia)

· **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.

· **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:**

Dispose of contents/container in accordance with international, federal, state, and local regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA**

UNI805

· **UN proper shipping name**

· **DOT**

· **IMDG, IATA**

Phosphoric acid solution mixture

PHOSPHORIC ACID, SOLUTION mixture

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

Trade name: Ultra-Etch™ &amp; Opa™ Etch

(Contd. of page 8)

· **Transport hazard class(es)**· **DOT**

· **Class** 8 Corrosive substances  
 · **Label** 8

· **IMDG, IATA**

· **Class** 8 Corrosive substances  
 · **Label** 8

· **Packing group**· **DOT, IMDG, IATA** III· **Environmental hazards:** Not Applicable.· **Special precautions for user** Warning: Corrosive substances· **Hazard identification number (Kemler code):** 80· **EMS Number:** F-A,S-B· **Segregation groups** Acids· **Stowage Category** A

· **Segregation Code** SG36 Stow "separated from" SGG18-alkalis.  
 SG49 Stow "separated from" SGG6-cyanides

· **Transport in bulk according to Annex II of  
 MARPOL 73/78 and the IBC Code** Not Applicable.

· **Transport/Additional information:**· **DOT**

· **Quantity limitations** On passenger aircraft/rail: 5 L  
 On cargo aircraft only: 60 L

· **IMDG**· **Limited quantities (LQ)** 5L· **Excepted quantities (EQ)** Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 1805 PHOSPHORIC ACID, SOLUTION MIXTURE, 8, III

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

(Contd. on page 10)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/05/2021

Reviewed on 08/22/2018

Trade name: Ultra-Etch™ &amp; Opal™ Etch

(Contd. of page 9)

**· Section 313 (Specific toxic chemical listings):**

7664-38-2	Phosphoric Acid
1344-28-1	Aluminium Oxide
1345-16-0	Dark Blue Pigment
68186-87-8	Cobalt Zinc Aluminate Blue Spinel
68186-85-6	Cobalt Titanate Green Spinel

**· TSCA (Toxic Substances Control Act):**

7664-38-2	Phosphoric Acid	ACTIVE
25322-68-3	Polyethylene Glycol	ACTIVE

**· Hazardous Air Pollutants**

1345-16-0	Dark Blue Pigment
68186-87-8	Cobalt Zinc Aluminate Blue Spinel
68186-85-6	Cobalt Titanate Green Spinel

**· 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.

**· Carcinogenic categories**
**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· ACGIH Carcinogenicity (American Conference of Governmental Industrial Hygienists)**

1344-28-1	Aluminium Oxide	A4
-----------	-----------------	----

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· Chemical safety assessment:**

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.

## 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.

· **Department issuing SDS:** Environmental, Health, and Safety

· **Contact:** Customer Service

· **Date of preparation / last revision** 10/05/2021 / -

**· 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)

(Contd. on page 11)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 10/05/2021

Reviewed on 08/22/2018

**Trade name: Ultra-Etch™ & Opa™ Etch**

(Contd. of page 10)

NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Met. Corr. 1: Corrosive to metals – Category 1  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 1: Acute toxicity – Category 1  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Repr. 2: Reproductive toxicity – Category 2  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

US