



Safety Data Sheet

according to WHS Regulations

Date of issue: 28.07.2025

Revision: 28.07.2025

1 Identification

- **Other means of identification**
- **Trade name:** Ultra-Etch™ & Opal™ Etch
- **Article number:** SDS 7-001.21R01, 10947, 10944, 10946, 10991, 383, 500090, 5004, 685, 685-CE
- **Relevant identified uses of the substance or mixture and uses advised against**
Professional dental acid etching solution
- **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
(800) 552-5512

Ultradent Australia Pty Ltd.
Level 22/2 Market Street
Sydney NSW 2000
Australia
Email: info.anz@ultradent.com
Toll Free: 1-800-290929
- **Further information obtainable from:** Customer Service
- **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



corrosion

Skin corrosion/irritation – Category 1B H314 Causes severe skin burns and eye damage.

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** GHS05
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Phosphoric Acid (≥25-<40 %)
- **Hazard statements**
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P260 Do not breathe dusts or mists.

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- P303+P361+P353 IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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).
- P405** Store locked up.
- P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition and Information on Ingredients

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

- **Dangerous components:**

| | | |
|-----------|--|----------|
| 7664-38-2 | Phosphoric Acid ⚠ Corrosive to metals – Category 1, H290; Skin corrosion/irritation – Category 1B, H314; Eye damage/irritation – Category 1, H318; ⚠ Acute toxicity - oral – Category 4, H302 | ≥25-<40% |
| | Dimethicone ⚠ Reproductive toxicity – Category 2, H361f; Specific target organ toxicity (repeated exposure) – Category 2, H373 | ≥0.1-<1% |

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 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:**
If swallowed in large quantities seek medical attention.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **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

- **Suitable extinguishing agents:**
Dry Chemical
Carbon dioxide
Alcohol resistant foam
Water spray
Use fire extinguishing methods suitable to surrounding conditions.
- **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.

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- **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 neutralising agent.
 - Dispose contaminated material as waste according to section 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.

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.
 - Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **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 container tightly sealed.
- **Specific end use(s)** Professional Dental Acid Etching Solution

8 Exposure controls and personal protection

- **Appropriate engineering controls** No further data; see section 7.

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· Ingredients with limit values that require monitoring at the workplace:
7664-38-2 Phosphoric Acid
WES Short-term value: 3 mg/m³

 Long-term value: 1 mg/m³
· Additional information: The lists valid during the making were used as basis.

· Personal protective equipment:
· General protective and hygienic measures:

Do not eat or drink while working.

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.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· 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 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

· General Information
· Appearance:

- | | |
|-----------------------------|-----------------|
| · Form: | Gel |
| · Colour: | Blue |
| · Odour: | Odourless |
| · Odour threshold: | Not determined. |
| · pH-value at 20 °C: | <1 |

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- **Change in condition**
- **Melting point/freezing point:** Undetermined.
- **Initial boiling point and boiling range:** 100 °C
- **Flash point:** Not applicable.
- **Flammability** Not applicable.
- **Decomposition temperature:** Not determined.
- **Ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Vapour pressure:** Not determined.
- **Density at 20 °C:** 1.3 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
- **water:** Not miscible or difficult to mix.
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
- **Dynamic:** Not determined.
- **Kinematic:** Not determined.
- **Other information** Refractive Index 34-37 Brix
- **Particle characteristics** Not applicable.
- **Physical state** Fluid

10 Stability and Reactivity

- **Reactivity Stable**
- **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

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)

| | | |
|------|------|-------------------|
| Oral | LD50 | 4,358 mg/kg (rat) |
|------|------|-------------------|

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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) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour 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 (German Regulation) (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 sewage water or drainage ditch undiluted or unneutralised.
 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 packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADG, IMDG, IATA** UNI805

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· **UN proper shipping name**
 · **ADG**
 · **IMDG, IATA**

1805 PHOSPHORIC ACID, SOLUTION
 PHOSPHORIC ACID, SOLUTION

· **Transport hazard class(es)**
 · **ADG, IMDG, IATA**



· **Class**
 · **Label**

8 Corrosive substances.
 8

· **Packing group**
 · **ADG, IMDG, IATA**

III

· **Environmental hazards:** Not applicable.

· **Special precautions for user**
 · **Hazard identification number (Kemler code):**
 · **EMS Number:**
 · **Segregation groups**
 · **Stowage Category**
 · **Segregation Code**

Warning: Corrosive substances.
 80
 F-A,S-B
 (SGG1) Acids
 A
 SG36 Stow "separated from" SGG18-alkalis.
 SG49 Stow "separated from" SGG6-cyanides

· **Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADG**
 · **Limited quantities (LQ)**
 · **Excepted quantities (EQ)**

5L
 Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· **Transport category**
 · **Tunnel restriction code**

3
 E

· **IMDG**
 · **Limited quantities (LQ)**
 · **Excepted quantities (EQ)**

5L
 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, 8, III

15 Regulatory information

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

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

None of the ingredients is listed.

· **Australian Inventory of Industrial Chemicals**

7732-18-5 | Water

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| | |
|------------|-----------------------------------|
| 7664-38-2 | Phosphoric Acid |
| 25322-68-3 | Polyethylene Glycol |
| | Trade Secret |
| | Trade Secret |
| 1345-16-0 | Dark Blue Pigment |
| 68186-87-8 | Cobalt Zinc Aluminate Blue Spinel |
| 68186-85-6 | Cobalt Titanate Green Spinel |

Standard for the Uniform Scheduling of Medicines and Poisons

| | | |
|-----------|-----------------|--------|
| 7664-38-2 | Phosphoric Acid | S5, S6 |
|-----------|-----------------|--------|

Australia: Priority Existing Chemicals

None of the ingredients is listed.

Directive 2012/18/EU

Named dangerous substances - ANNEX I 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.

Relevant phrases from Section 3

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

Department issuing SDS: Environmental, Health, and Safety

Contact: Customer Service

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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)

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

Corrosive to metals – Category 1: Corrosive to metals – Category 1

Acute toxicity - oral – Category 4: Acute toxicity – Category 4

Skin corrosion/irritation – Category 1B: Skin corrosion/irritation – Category 1B

Eye damage/irritation – Category 1: Serious eye damage/eye irritation – Category 1

Reproductive toxicity – Category 2: Reproductive toxicity – Category 2

Specific target organ toxicity (repeated exposure) – Category 2: Specific target organ toxicity (repeated exposure) – Category 2

*** Data compared to the previous version altered.**