# Safety data sheet
## according to UK REACH

Printing date 30.10.2025 Version number 1 Revision: 30.10.2025

* 
## 1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name: UltraSeal XT™ Hydro™**

· **Article number:**
SDS 239-001.11R01, 71109, 71110, 71111, 56315, 87511, 3533, 3535, 3536-1, REF3536-1, S3529, 14852, 87510, 3532, 3534, 3536, REF3536
· **Relevant identified uses of the substance or mixture and uses advised against**
Professional Dental Pit and Fissure Sealant
· **Application of the substance / the mixture** Professional Dental Pit and Fissure Sealant

· **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

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

· **Further information obtainable from:** Customer Service
· **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

## 2 Hazards identification

· **Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** GHS07
· **Signal word** Warning

· **Hazard-determining components of labelling:**
Triethylene Glycol Dimethacrylate
Methacrylic Acid
Diurethane Dimethacrylate
Organophosphine Oxide

(Contd. on page 2)

# Safety data sheet
## according to UK REACH

Printing date 30.10.2025 Version number 1 Revision: 30.10.2025

**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 1)

· **Hazard statements**
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## 3 Composition/information on ingredients

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

· **Dangerous components:**

| | | |
|---|---|---|
| CAS: 109-16-0<br>EINECS: 203-652-6 | Triethylene Glycol Dimethacrylate<br>Skin Sens. 1, H317 | >10-<30% |
| CAS: 72869-86-4<br>EINECS: 276-957-5 | Diurethane Dimethacrylate<br>Skin Sens. 1, H317; Aquatic Chronic 3, H412 | >5-<20% |
| CAS: 1830-78-0<br>EINECS: 217-388-4 | Glycerol Dimethacrylate<br>Skin Irrit. 2, H315; STOT SE 3, H335 | ≥5-<10% |
| | Trimethylolpropane Trimethacrylate<br>Aquatic Chronic 2, H411 | ≥0.25-<2.5% |
| | Trade Secret<br>Skin Corr. 1A, H314 | ≥1-<5% |
| CAS: 79-41-4<br>EINECS: 201-204-4 | Methacrylic Acid<br>Acute Tox. 3, H311; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335<br>Specific concentration limit: STOT SE 3; H335: C ≥ 1 % | ≤1% |
| CAS: 10287-53-3<br>EINECS: 233-634-3 | Ethyl-4-Dimethylamino Benzoate<br>Repr. 1B, H360; Aquatic Chronic 2, H411 | ≥0.1-<1% |
| | Organophosphine Oxide<br>Skin Sens. 1A, H317; Aquatic Chronic 4, H413 | <1% |

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

## 4 First aid measures

· **Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:**
Seek medical treatment in case of complaints.
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.
· **After swallowing:** If symptoms persist consult doctor.

(Contd. on page 3)

**Safety data sheet**
**according to UK REACH**

Printing date 30.10.2025 Version number 1 Revision: 30.10.2025

**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 2)

· **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 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters:**
· **Protective equipment:** No special measures required.

## 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.
· **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).
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

· **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about fire - and explosion protection:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
See product labelling.
Keep container tightly sealed.
· **Specific end use(s)** Professional Dental Pit and Fissure Sealant

## 8 Exposure controls/personal protection

· **Control parameters**

| · **Ingredients with limit values that require monitoring at the workplace:** | |
|---|---|
| **79-41-4 Methacrylic Acid** | |
| WEL | Short-term value: 143 mg/m³, 40 ppm<br>Long-term value: 72 mg/m³, 20 ppm |

· **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 4)

# Safety data sheet
## according to UK REACH

Printing date 30.10.2025 Version number 1 Revision: 30.10.2025

**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 3)

· **Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
· **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.
· **Hand protection**

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/face protection** Goggles recommended during refilling
· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

| | |
|---|---|
| · **Information on basic physical and chemical properties** | |
| · **General Information** | |
| · **Physical state** | Fluid |
| · **Colour:** | According to product specification |
| · **Odour:** | Acrylic |
| · **Odour threshold:** | Not determined. |
| · **Melting point/freezing point:** | Undetermined. |
| · **Boiling point or initial boiling point and boiling range** | Undetermined. |
| · **Flammability** | Not applicable. |
| · **Lower and upper explosion limit** | |
| · **Lower:** | Not determined. |
| · **Upper:** | Not determined. |
| · **Flash point:** | Not applicable. |
| · **Decomposition temperature:** | Not determined. |
| · **pH** | Not applicable (non-aqueous) |
| · **Viscosity:** | |
| · **Kinematic viscosity** | Not determined. |
| · **Dynamic:** | Not determined. |
| · **Solubility** | |
| · **water:** | Not miscible or difficult to mix. |

(Contd. on page 5)

# Safety data sheet
## according to UK REACH



**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 4)

| | |
|---|---|
| · **Partition coefficient n-octanol/water (log value)** | Not determined. |
| · **Vapour pressure:** | Not determined. |
| · **Density and/or relative density** | |
| · **Density at 20 °C:** | 1.67 g/cm³ |
| · **Relative density** | Not determined. |
| · **Vapour density** | Not determined. |

| | |
|---|---|
| · **Other information** | |
| · **Appearance:** | |
| · **Form:** | Liquid |
| · **Important information on protection of health and environment, and on safety.** | |
| · **Ignition temperature:** | Product is not selfigniting. |
| · **Explosive properties:** | Product does not present an explosion hazard. |
| · **Change in condition** | |
| · **Evaporation rate** | Not determined. |

| | |
|---|---|
| · **Information with regard to physical hazard classes** | |
| · **Explosives** | Void |
| · **Flammable gases** | Void |
| · **Aerosols** | Void |
| · **Oxidising gases** | Void |
| · **Gases under pressure** | Void |
| · **Flammable liquids** | Void |
| · **Flammable solids** | Void |
| · **Self-reactive substances and mixtures** | Void |
| · **Pyrophoric liquids** | Void |
| · **Pyrophoric solids** | Void |
| · **Self-heating substances and mixtures** | Void |
| · **Substances and mixtures, which emit flammable gases in contact with water** | Void |
| · **Oxidising liquids** | Void |
| · **Oxidising solids** | Void |
| · **Organic peroxides** | Void |
| · **Corrosive to metals** | Void |
| · **Desensitised explosives** | Void |

## 10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **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:** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

(Contd. on page 6)

# Safety data sheet
## according to UK REACH



**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 5)

· **LD/LC50 values relevant for classification:**

| **ATE (Acute Toxicity Estimates)** | | |
|---|---|---|
| Oral | LD50 | 102,743-109,873 mg/kg (rat) |
| Dermal | LD50 | 48,464-51,827 mg/kg |
| Inhalative | LC50/4 h | 688-736 mg/l (rat) |

| **109-16-0 Triethylene Glycol Dimethacrylate** | | |
|---|---|---|
| Oral | LD50 | >5,000 mg/kg (rat) |
| | LC50 Fish | 16.4 mg/l (Fish) (Toxicity to fish) |
| Dermal | LD50 | >2,000 mg/kg (mouse) |

| **72869-86-4 Diurethane Dimethacrylate** | | |
|---|---|---|
| Oral | LD50 | >5,000 mg/kg (rat) |

| **79-41-4 Methacrylic Acid** | | |
|---|---|---|
| Oral | LD50 | 1,250 mg/kg (mouse) |
| | | 1,060 mg/kg (rat) |
| | | 1,200 mg/kg (rabbit) |
| | LC50 Fish | 86 mg/l (Fish) |
| Dermal | LD50 | 1,000 mg/kg (guinea pig) |
| | | 500 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 7.1 mg/l (rat) |

| **Organophosphine Oxide** | | |
|---|---|---|
| Oral | LD50 | >2,000 mg/kg (rat) |
| | LC50 Fish | >0.09 mg/l (Fish) (Toxicity to fish) |
| Dermal | LD50 | >2,000 mg/kg (rat) |

· **Respiratory or skin sensitisation** May cause an allergic skin reaction.
· **STOT-single exposure** May cause respiratory irritation.
· **Information on other hazards**

| · **Endocrine disrupting properties** |
|---|
| None of the ingredients is listed. |

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

| **109-16-0 Triethylene Glycol Dimethacrylate** | |
|---|---|
| EC50 | >100 mg/kg (Algae) |
| Biodegradability | 28 days (Aerobic) (Biodegradability testing) |
| Aqua toxicity | 32 mg/l (daphnia) (No Observed Effect Concentration) |

| **72869-86-4 Diurethane Dimethacrylate** | |
|---|---|
| EC50 | >0.6 mg/kg (Algae) |
| Biodegradability | 28 days (Aerobic) (Biodegradability testing) |

| **79-41-4 Methacrylic Acid** | |
|---|---|
| EC50 | 17,000 mg/kg (Algae) |
| | <180 mg/kg (daphnia) (Toxicity to aquatic invertebrates) |

(Contd. on page 7)

# Safety data sheet
## according to UK REACH



(Contd. of page 6)

| **Organophosphine Oxide** | |
|---|---|
| EC50 (static) | >1.175 mg/kg (daphnia) (Toxicity to aquatic invertebrates) |
| Aqua toxicity | ≥0.008 mg/l (daphnia) (Daphnia Magna Reproduction Test) |
| Toxicity to Aquatic Plants (static) | >0.26 mg/l (Plant) (Toxicity to algae) |

· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **Other adverse effects**
· **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.

## 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 or ID number**<br>· **ADR, ADN, IMDG, IATA** | not regulated |
| · **UN proper shipping name**<br>· **ADR, ADN, IMDG, IATA** | not regulated |
| · **Transport hazard class(es)**<br>· **ADR, ADN, IMDG, IATA**<br>· **Class** | not regulated |
| · **Packing group**<br>· **ADR, IMDG, IATA** | not regulated |
| · **Environmental hazards:** | Not applicable. |
| · **Special precautions for user** | Not Applicable |
| · **Maritime transport in bulk according to IMO instruments** | Not applicable. |
| · **UN "Model Regulation":** | not regulated |



(Contd. on page 8)

# Safety data sheet
## according to UK REACH

Printing date 30.10.2025 Version number 1 Revision: 30.10.2025

**Trade name: UltraSeal XT™ Hydro™**

(Contd. of page 7)

## 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.

· **Poisons Act**

· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

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 biocompatible when used as directed by dental professionals per ISO 10993-1

## 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**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360 May damage fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

· **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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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

(Contd. on page 9)

# Safety data sheet
## according to UK REACH

*Printing date 30.10.2025* *Version number 1* *Revision: 30.10.2025*

***Trade name: UltraSeal XT™ Hydro™***

(Contd. of page 8)

*ATE: Acute toxicity estimate values*
*Acute Tox. 4: Acute toxicity – Category 4*
*Acute Tox. 3: Acute toxicity – Category 3*
*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*
*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*
*Skin Sens. 1: Skin sensitisation – Category 1*
*Skin Sens. 1A: Skin sensitisation – Category 1A*
*Repr. 1B: Reproductive toxicity – Category 1B*
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*
*Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*
*Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*
*Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4*
· **** Data compared to the previous version altered.***

# Safety data sheet
## according to UK REACH

Printing date 28.07.2025 Version number 1 Revision: 28.07.2025

* 
## 1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **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

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

· **Further information obtainable from:** Customer Service
· **Emergency telephone number:**
CHEMTREC (NORTH AMERICA) : +1 (800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

## 2 Hazards identification

· **Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

corrosion

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

Acute Tox. 4 H332 Harmful if inhaled.

· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** GHS05, GHS07
· **Signal word** Danger

· **Hazard-determining components of labelling:**
Phosphoric Acid
· **Hazard statements**
H332 Harmful if inhaled.

(Contd. on page 2)

# Safety data sheet
## according to UK REACH

Printing date 28.07.2025 Version number 1 Revision: 28.07.2025

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

(Contd. of page 1)

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 carefully and follow all instructions. |
| P260 | Do not breathe dusts or mists. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/information on ingredients

· **Mixtures**

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

· **Dangerous components:**

| | | |
|---|---|---|
| CAS: 7664-38-2<br>EINECS: 231-633-2 | Phosphoric Acid<br>Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302<br>Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 %<br>Skin Irrit. 2; H315: 10 % ≤ C < 25 %<br>Eye Irrit. 2; H319: 10 % ≤ C < 25 % | ≥25-<40% |
| | Dimethicone<br>Repr. 2, H361f; STOT RE 2, H373 | ≥0.1-<1% |

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

## 4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

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 plenty of water and provide fresh air. Call for a doctor immediately.

· **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.



(Contd. on page 3)

# Safety data sheet
## according to UK REACH



(Contd. of page 2)

## 5 Firefighting measures

· **Extinguishing media**
· **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.
· **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

· **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.

· **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.

(Contd. on page 4)

# Safety data sheet
## according to UK REACH



(Contd. of page 3)

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/personal protection

· **Control parameters**

| · **Ingredients with limit values that require monitoring at the workplace:** | |
|---|---|
| **7664-38-2 Phosphoric Acid** | |
| WEL | Short-term value: 2 mg/m³<br>Long-term value: 1 mg/m³ |

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as 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.
· **Hand protection**

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/face 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

(Contd. on page 5)

**Safety data sheet**
**according to UK REACH**

Printing date 28.07.2025 Version number 1 Revision: 28.07.2025

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

(Contd. of page 4)

Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

| | |
|---|---|
| · **Information on basic physical and chemical properties** | |
| · **General Information** | |
| · **Physical state** | Fluid |
| · **Colour:** | Blue |
| · **Odour:** | Odourless |
| · **Odour threshold:** | Not determined. |
| · **Melting point/freezing point:** | Undetermined. |
| · **Boiling point or initial boiling point and boiling range** | 100 °C |
| · **Flammability** | Not applicable. |
| · **Lower and upper explosion limit** | |
| · **Lower:** | Not determined. |
| · **Upper:** | Not determined. |
| · **Flash point:** | Not applicable. |
| · **Decomposition temperature:** | Not determined. |
| · **pH at 20 °C** | <1 |
| · **Viscosity:** | |
| · **Kinematic viscosity** | Not determined. |
| · **Dynamic:** | Not determined. |
| · **Solubility** | |
| · **water:** | Not miscible or difficult to mix. |
| · **Partition coefficient n-octanol/water (log value)** | Not determined. |
| · **Vapour pressure:** | Not determined. |
| · **Density and/or relative density** | |
| · **Density at 20 °C:** | 1.3 g/cm³ |
| · **Relative density** | Not determined. |
| · **Vapour density** | Not determined. |
| · **Other information** | Refractive Index 34-37 Brix |
| · **Appearance:** | |
| · **Form:** | Gel |
| · **Important information on protection of health and environment, and on safety.** | |
| · **Ignition temperature:** | Product is not selfigniting. |
| · **Explosive properties:** | Product does not present an explosion hazard. |
| · **Change in condition** | |
| · **Evaporation rate** | Not determined. |
| · **Information with regard to physical hazard classes** | |
| · **Explosives** | Void |
| · **Flammable gases** | Void |
| · **Aerosols** | Void |
| · **Oxidising gases** | Void |
| · **Gases under pressure** | Void |
| · **Flammable liquids** | Void |
| · **Flammable solids** | Void |

(Contd. on page 6)

# Safety data sheet
## according to UK REACH



(Contd. of page 5)

| | |
|---|---|
| · **Self-reactive substances and mixtures** | Void |
| · **Pyrophoric liquids** | Void |
| · **Pyrophoric solids** | Void |
| · **Self-heating substances and mixtures** | Void |
| · **Substances and mixtures, which emit flammable gases in contact with water** | Void |
| · **Oxidising liquids** | Void |
| · **Oxidising solids** | Void |
| · **Organic peroxides** | Void |
| · **Corrosive to metals** | Void |
| · **Desensitised explosives** | Void |

## 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, hyrogen gas
· **Additional information:**
Reacts with bases to form phosphate salts and is corrosive (especially when hot) to many metals and alloys. Liberates exposive 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 hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Harmful if inhaled.

· **LD/LC50 values relevant for classification:**

**ATE (Acute Toxicity Estimates)**

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

**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.
· **Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.



(Contd. on page 7)

# Safety data sheet
## according to UK REACH



(Contd. of page 6)

## 12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **Other adverse effects**
· **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.

## 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 or ID number** | |
| · **ADR, IMDG, IATA** | UN1805 |
| · **UN proper shipping name** | |
| · **ADR** | 1805 PHOSPHORIC ACID, SOLUTION |
| · **IMDG, IATA** | PHOSPHORIC ACID, SOLUTION |
| · **Transport hazard class(es)** | |
| · **ADR, IMDG, IATA** |  |
| · **Class** | 8 Corrosive substances. |
| · **Label** | 8 |
| · **Packing group** | |
| · **ADR, IMDG, IATA** | III |
| · **Environmental hazards:** | Not applicable. |

(Contd. on page 8)

# Safety data sheet
## according to UK REACH



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

(Contd. of page 7)

| | |
|---|---|
| · **Special precautions for user** | Warning: Corrosive substances. |
| · **Hazard identification number (Kemler code):** | 80 |
| · **EMS Number:** | F-A,S-B |
| · **Segregation groups** | (SGG1) Acids |
| · **Stowage Category** | A |
| · **Segregation Code** | SG36 Stow "separated from" SGG18-alkalis.<br>SG49 Stow "separated from" SGG6-cyanides |
| · **Maritime transport in bulk according to IMO instruments** | Not applicable. |
| · **Transport/Additional information:** | |
| · **ADR** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **Transport category** | 3 |
| · **Tunnel restriction code** | E |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>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.

· **Poisons Act**

· **Regulated explosives precursors**

| | | |
|---|---|---|
| 7664-38-2 | Phosphoric Acid | 30% |

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

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.



(Contd. on page 9)

# Safety data sheet
## according to UK REACH



(Contd. of page 8)

## 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.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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
ATE: Acute toxicity estimate values
Met. Corr.1: Corrosive to metals – Category 1
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
Repr. 2: Reproductive toxicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
· *** Data compared to the previous version altered.**