



E Dental Products Safety Data Sheet

Issue Date: 11/30/2020
Version 2

e1, 37% Phosphoric Acid Etching Gel

1.0 Identification of the substance/preparation and of the company/undertaking

- 1.1 **Commercial product name / designation** :e1 etchants, 37% Phosphoric Acid Etching Gel
 1.2 **Application / Use** :Dental etching gel for use by Dental Professionals only. Etch enamel, dentin, and glass ionomer cements.
- 1.3 **Manufacturer & Distributor**
 E Dental Products
 216 W. Watauga Ave. Telephone: 1-844-289-3824
 Johnson City, TN 37604 Email: sales@edentalproducts.com
- 1.4 **Emergency Telephone Number** :1-423-426-3221

2.0 Hazards Identification

- 2.1 **Classification of the substance or mixture**
- 2.1.1 **Classification according to Regulation (EC) No. 1272/2008 [CLP]**
- | Hazard Class | Hazard Category | Hazard Statement |
|----------------|-----------------|------------------|
| Skin corrosion | 1B | H314 |
| Eye irritation | 2 | H318 |
- 2.1.2 **Classification according to Directive 67/548/EEC** Corrosive (C); R 34; R 36 / 37 / 38
 (See SECTION 16 for full text of risk phrases)
- 2.1.3 **Classification according to GHS-US**
 Metal Corrosion 1 H290
 Skin Corrosion 1B H314
 Eye Damage 2A H318

2.2 Label elements

Hazard Pictograms



- Signal words (GHS-US) :Danger , Warning
 Hazard statements (GHS-US) :H290 - May be corrosive to metals.
 H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.
- Precautionary statements (GHS-US) :P234 - Keep only in original container.
 P260 - Do not breathe dust/fumes/gas/mist/vapours/spray.
 P264 - Wash hands and forearms thoroughly after handling.
 P273 - Avoid release into the environment.
 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/physician.
 P321 - Specific treatment (see Section 4).
 P363 - Wash contaminated clothing before reuse.
 P501 - Dispose of contents/ container according to local, regional, national, and international regulations.

- 2.3 **Other hazards**
 No additional information available
- 2.4 **Unknown acute toxicity (GHS-US)**
 Not data available

3.0 Composition

Name	Product Identifier	%	Classification (GHS-US)
Phosphoric acid	(CAS No) 7664-38-2	37%	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 2A, H314

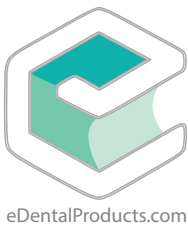
- 3.1 **Substance** :Not Applicable
 3.2 **Mixture** :Phosphoric Acid in a proprietary gel matrix

4.0 First Aid Measures

- 4.1 **General Information** :May cause burns or irritation to eyes, skin or mucous membranes. Acute effects may be delayed. Show this safety data sheet to medical personnel. Get medical attention incase of uncertainty.
- 4.2 **Eye Contact** :Remove contact lenses. Keep eyelids apart and flush with running water for 15+ minutes or until pH of tears is 7. Get medical attention.
- 4.3 **Skin Contact** :Immediately flush skin with running water for 15 minutes. Get medical attention for persistent irritation or burns.
- 4.4 **Ingestion** :Rinse mouth with water. Do not induce vomiting. Give water to dilute. Get immediate medical attention. Never give anything by mouth to an unconscious person.
- 4.5 **Inhalation** :None expected for this product.
- 4.6 **Precautions for first responders** :Ventilate the area. Wear safety glasses, gloves and lab coat.
- 4.7 **Information for physicians**
 Symptoms :Irritation, pain or redness in eyes, mucous membranes or skin. Acute effects may be delayed so continued monitoring of the patient is indicated.
 Hazards :May cause burns or irritation to eyes, skin or mucous membranes. Acute effects may be delayed.
 Treatment :Same as above under First Aid.

5.0 Fire Fighting Measures

- 5.1 **Suitable extinguishing media** :Not a fire hazard. Use water spray to keep fire exposed containers cool. Extinguish fire with agent suitable for surrounding fire.
- 5.2 **Extinguishing media to avoid** :None
- 5.3 **Special exposure hazards in a fire** :Phosphoric acid can react with metals to liberate hydrogen gas.
- 5.4 **Special protective equipment for fire-fighters** :A self-contained breathing apparatus should be worn by firefighting personnel.



E Dental Products Safety Data Sheet

Issue Date: 11/30/2020
Version 2

e1, 37% Phosphoric Acid Etching Gel

6.0 Accidental Release Measures

- 6.1 **Personal precautions.** :Wear chemical splash goggles and gloves.
- 6.2 **Environmental precautions** :Avoid releasing large quantities into the environment as phosphoric acid may affect pH of water soil.
- 6.3 **Method for clean up** :For small quantities (as in this product): Wear safety glasses, lab coat and gloves. Absorb or wipe up spill with dry paper towels. Place all material in covered chemical waste container for disposal. Flush spill area with water

7.0 Handling and Storage

- 7.1 **Handling** :For use by dental professionals only. Wear safety glasses and gloves; wash hands after use. Avoid unnecessary exposure. Follow good hygiene practices. Protect soft tissue from etchant during intraoral procedures.
- 7.2 **Storage** :Remove applicator tip after each use. Keep tightly capped in original container. Store at cool room temperature. Avoid extremes of temperature (>27°C/80°F, <5°C/40°F), alkalis, sulfites, sulfides and most metals.
- 7.3 **Specific uses** :Dental etchant

8.0 Exposure Controls / Personal Protection

- 8.1. **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

9.0 Physical and Chemical Properties

- 9.1. **Information on basic physical and chemical properties**
 - Physical state : Gel
 - Color : Blue, Orange, Pink, Green, Yellow, Purple, Seafoam
 - Odor :Characteristic odor
 - pH : ≤ 1
 - Solubility in water :Soluble in water.
 - Specific gravity :1.31
 - Relative evaporation rate (butyl acetate=1) : No data available
 - Density : >1g/cc
 - Freezing point : No data available
 - Boiling point : No data available
 - Flash point : No data available
 - Auto-ignition Temperature : No data available
 - Decomposition temperature : No data available
 - Flammability (solid, gas) : No data available
 - Vapor pressure : No data available
 - Relative vapor density at 20° C : No data available
 - Relative density : No data available
 - Melting point : No data available
 - Log Pow : No data available
 - Log Kow : No data available
 - Viscosity : No data available
 - Explosive properties : No data available
 - Oxidizing properties : No data available
 - Explosive limits : No data available
- 9.2. **Other information**
No additional information available

10.0 Stability and reactivity

- 10.1. **Reactivity** : Stable
- 10.2. **Chemical stability** : Stable when stored and handled under recommended conditions

- 10.3. **Possibility of hazardous reactions** : None
- 10.4. **Conditions to avoid** : Avoid strong bases, metals. excess heat, exposure to moist air or water.
- 10.5. **Incompatible materials** : Strong caustics, most metals.
- 10.6. **Hazardous decomposition product** : Phosphine, oxides of phosphorous, hydrogen gas
- 10.7 **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.

11.0 Toxicological information

- 11.1 **Information on toxicological effects**
 - Acute toxicity :Not classified
 - Phosphoric acid (7664-38-2)
 - LD50 oral rat :1530 mg/kg
 - LD50 dermal rabbit :2730 mg/kg
 - LC50 inhalation rat (mg/l) :>850 mg/m³ (Exposure time: 1h)
 - ATE (oral) :1530.000 mg/kg body weight
 - ATE (dermal) :2730.000 mg/kg body weight
 - Skin corrosion/ irritation :Causes severe skin burns and eye damage.
 - Serious eye damage/irritation :Causes serious eye damage.
 - Respiratory or skin sensitization :Not classified
 - Germ cell mutagenicity :Not classified
 - Carcinogenicity :Not classified
- 11.2 **Clinical Experience** :Using phosphoric acid etchants to prepare teeth for bonding procedures is a well-established (more than 30 years)industry-accepted, dental procedure. Etching enamel with phosphoric acid is safe and effective treatment in the hands of a dental professional.

12.0 Ecological Information

- 12.1 **Ecotoxicity** :No specific information available. Use according to good working practices. Avoid release into the environment as it may cause pH variation.

13.0 Disposal Considerations

- 13.1 **Regulations** :Dispose of in compliance with governmental regulation. (EC 1975L0442-20/11/2003)
- 13.2 **Disposal** :Do not dispose of waste into sewer.

14.0 Transport Information

- 14.1 **UN Number (DOT)** :1805
- 14.2 **UN Proper shipping name** :Phosphoric Acid
- 14.3 **Packing Group (DOT)** : III - Minor Danger
- 14.4 **Department of Transportation** : (DOT)
- Hazard Classes : 8 Corrosive material
49CFR 173.136
- DOT Packaging exception :154
- DOT Packaging non bulk :203
- DOT Packaging bulk :241
- DOT Quantity Limitations
- Passenger air/rail :5L
- DOT Quantity Limitations
- Cargo air only :60L
- 14.5 **Hazard Labels DOT**
8 Corrosive





E Dental Products Safety Data Sheet

Issue Date: 11/30/2020
Version 2

e1, 37% Phosphoric Acid Etching Gel

15.0 Regulatory Information

- 15.1 **EU** :Class IIA medical devices under MDD 93/42/EEC.
- 15.2 **US FDA** :Class II medical devices.
- 15.3 **Health Canada** :Class II medical devices
- 15.4 **US Federal regulations**
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard
Phosphoric acid (7664-38-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
- 15.5 **US State regulations**
Phosphoric acid (7664-38-2)
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATC)s
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Right To Know List
U.S. - Threshold Effects Exposure Limits (TELS)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

16.0 Other Information

- 16.1 **List of relevant R phrases** :R 34: Causes burns
R 36: Irritating to eyes
R 37: Irritating to respiratory system
R 38: Irritating to skin.
- 16.2 **Hazard Pictograms (GHS-US)**
- Signal words (GHS-US) :Danger , Warning
- Hazard Statements (GHS-US) :H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
- Precautionary statements (GHS-US) :P234 - Keep only in original container.
P260 - Do not breathe dust/fumes/gas/mist/vapours/spray.
P264 - Wash hands and forearms thoroughly after handling.
P273 - Avoid release into the environment.
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/physician.
P321 - Specific treatment (see Section 4).
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/ container according to local, regional, national, and international regulations.

- 16.3 **Precautionary Statements** :P264: Wash hands thoroughly after handling.
P280: Wear protective gloves, clothing and eye/face protection.
P301+P330+P353: If on skin (or hair), remove all contaminated clothing. Rinse skin with water.
P310: Immediately call a Poison Center or doctor/physician.
P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until pH of tears is 7.
- 16.4 **Restrictions on use** :Dental etchants are to be sold to/used by dental professionals only.
- 16.5 **Further information** :The information presented herein is believed to be factual as it has been derived from the works of persons believed to be qualified experts. However, nothing contained in this information is to be taken as a warranty or representation for which E Dental Product bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.
- 16.6 **Sources of key data** :National Institute for Occupational Safety (NIOSH) Occupational Safety and Health Administration (OSHA) Eur-Lex European Union Law: Regulation (EC) No. 1272/2008 (CLP) and Regulation (EC) No. 1907/2006 (REACH). Guidance on the compilation of safety data sheets. Version 1.1; December 2011. European Chemicals Agency