

Etch Gel

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/12/2014

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Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Etch Gel
Synonyms : Etchant Gel Blue, Phosphoric Acid Solution

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For Professional Dental Use

1.3. Details of the supplier of the safety data sheet

Company

Henry Schein, Inc.
135 Duryea Road
Melville, NY 11747
Telephone: 1-800-424-9300
www.henryschein.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC; 1-703-527-3887 CHEMTREC - Outside USA

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Met. Corr. 1 H290
Skin Corr. 1B H314
Eye Dam. 1 H318

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

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 spray, vapors, fume, dust.
P264 - Wash hands and forearms thoroughly after handling.
P280 - Wear eye protection, protective gloves.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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 or doctor/physician.
P321 - Specific treatment (see Section 4).
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.

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P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant inner liner.
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)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Phosphoric acid	(CAS No) 7664-38-2	30 - 55	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact : Remove contaminated clothing. Immediately rinse with plenty of water for at least 60 minutes. Obtain medical attention if irritation persists.
First-aid measures after eye contact : Immediately rinse with water for a prolonged period. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion : If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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

Symptoms/injuries : Corrosive. Causes burns.
Symptoms/injuries after inhalation : Inhalation may cause immediate severe irritation progressing quickly to chemical burns.
Symptoms/injuries after skin contact : Prolonged skin contact may result in severe irritation leading to chemical burns.
Symptoms/injuries after eye contact : Causes serious eye damage.
Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.

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

If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Not considered flammable but will burn at high temperatures. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Oxides of phosphorus.
Explosion hazard : Product is not explosive.
Reactivity : Stable at ambient temperature and under normal conditions of use.

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5.3. Advice for firefighters

- Firefighting instructions : Do not breathe fumes from fires or vapours from decomposition. All fire-fighting personnel must wear safety suits.
- Protection during firefighting : Use normal individual fire protective equipment. Use self-contained breathing apparatus when fighting fire in an enclosed area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Do not get in eyes, on skin, or on clothing.

6.1.1. For non-emergency personnel

- Protective equipment : During cleaning/processing wear suitable respiratory equipment. Wear suitable protective clothing, gloves and eye/face protection.
- Emergency procedures : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Evacuate unnecessary personnel. Ventilate area.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. Collect absorbed material and place into a sealed, labelled container for proper disposal.
- Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

6.2. Environmental precautions

- Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material, then place in suitable container.
- Methods for cleaning up : Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

6.4. Reference to other sections

- See heading 8, Exposure Controls and Personal Protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink or smoke in areas where product is used.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Store in a dry, cool place.
- Storage area : Store away from heat.
- Special rules on packaging : Keep container closed when not in use.

7.3. Specific end use(s)

- For Professional Dental Use

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
Silica, amorphous, fumed, crystalline-free (112945-52-5)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	6 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m ³ /%SiO ₂)

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8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.
Personal protective equipment : Insufficient ventilation: wear respiratory protection. Protective goggles.
Gloves.



Materials for protective clothing : Butyl-rubber protective gloves.
Hand protection : Impermeable protective gloves.
Eye protection : Safety goggles.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Dark. gel.
Color : Blue.
Odor : No data available
Odor threshold : No data available
pH : 1.7 - 2
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition Temperature : Not 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
Specific Gravity : No data available
Density : > 1 g/cc
Solubility : No data available
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : 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

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Stable at standard temperature and pressure.

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10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Prolonged contact with metals.

10.5. Incompatible materials

Metal. Bases. Oxidizers.

10.6. Hazardous decomposition products

Under conditions of fire this material may produce: Oxides of phosphorus.

SECTION 11: 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/m ³ (Exposure time: 1 h)
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. pH: 1.7 - 2

Serious eye damage/irritation : Causes serious eye damage. pH: 1.7 - 2

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Silica, amorphous, fumed, crystalline-free (112945-52-5)	
IARC group	3

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/injuries after skin contact : Prolonged skin contact may result in severe irritation leading to chemical burns.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Sewage disposal recommendations : Do not dispose of waste into sewer.
- Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

- UN-No.(DOT) : 1805
- DOT NA no. UN1805

14.2. UN proper shipping name

- DOT Proper Shipping Name : Phosphoric Acid Solution
- Department of Transportation (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
- Hazard Classes
- Hazard labels (DOT) : 8 - Corrosive



- Packing group (DOT) : III - Minor Danger
- DOT Special Provisions (49 CFR 172.102) : A7 - Steel packaging must be corrosion-resistant or have protection against corrosion.
- IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2).
Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
- N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.
- T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
- TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

- DOT Packaging Exceptions (49 CFR 173.xxx) : 154
- DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
- DOT Packaging Bulk (49 CFR 173.xxx) : 241

14.3. Additional information

- Emergency Response Guide (ERG) Number : 154

Transport by sea

- DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
- MFAG-No : 154

Air transport

- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

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SECTION 15: Regulatory information

15.1. US Federal regulations

Etch Gel	
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	

15.3. US State regulations

Phosphoric acid (7664-38-2)
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
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. - Massachusetts - Threshold Effects Exposure Limits (TELEs)
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

SECTION 16: Other information

Revision date : 02/12/2014

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom 2012)