

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Etchant Gel - Dark Blue  
Product code : S-Chem-390  
Product group : Commercial product

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

Use of the substance/preparation : For Professional Dental Use

#### 1.3. Details of the supplier of the safety data sheet

Dental Health Products, Inc. 2614  
North Sugar Rd.  
New Franken, WI, 54229, U.S.A

Telephone: 1-800-626-2163

Website: [www.dhpionline.com](http://www.dhpionline.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC  
800-424-9300 (USA)  
1-703-524-3887 (outside USA)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Skin Corr. 1B H314  
Eye Dam. 1 H318

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

Precautionary statements (GHS-US) : P260 - Do not breathe vapours, fumes, dust  
P264 - Wash hands and forearms thoroughly after handling  
P280 - Wear eye protection, protective gloves, respiratory protection  
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

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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

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, and international regulations

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
85% Phosphoric acid	(CAS No.) 7664-38-2	45 - 55	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
C.I. Pigment Blue 28	(CAS No.) 1345-16-0	0.1 - 1	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Resp. Sens. 1B, H334 Skin Sens. 1B, H317 STOT SE 3, H335

## 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 : Immediately rinse with plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse. Obtain medical attention if irritation persists.
- First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. 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. Causes skin irritation. Causes eye irritation.
- Symptoms/injuries after inhalation : Difficulty in breathing. Cough. Dry/sore throat.
- Symptoms/injuries after skin contact : Prolonged skin contact may result in severe irritation progressing to chemical burns.
- Symptoms/injuries after eye contact : May cause severe irritation.

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Symptoms/injuries after ingestion : Abdominal pain. Nausea.

### 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.

### 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 : Clean up any spills as soon as possible, using an absorbent material to collect it. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

### 6.4. Reference to other sections

No additional information available

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Avoid contact with skin and eyes.
- Precautions for safe handling : Avoid all eyes and skin contact and do not breathe vapour and mist. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Ensure there is adequate ventilation. Wear recommended personal protective equipment.
- 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. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. 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. Store in a well-ventilated place. Keep container tightly closed.
- 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 <sup>3</sup> )	1 mg/m <sup>3</sup>
USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

#### 8.2. Exposure controls

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



- Materials for protective clothing : Butyl-rubber protective gloves.
- Hand protection : Impermeable protective gloves.
- Eye protection : Safety glasses.

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Skin and body protection	: Handle in accordance with good industrial hygiene and safety practice. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Wear suitable protective clothing. Wash contaminated clothing before reuse. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls	: Ensure adequate ventilation, especially in confined areas.
Consumer exposure controls	: Wear recommended personal protective equipment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Dark gel
Colour	: Blue
Odour	: No data available
Odour threshold	: No data available
pH	: < 1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: > 1 g/cc
Solubility	: Water: Soluble

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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
Oxidising 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.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 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 <sup>3</sup> (Exposure time: 1 h)

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: < 1

Serious eye damage/irritation : Causes serious eye damage.  
pH: < 1

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Phosphoric acid (7664-38-2)	
LC50 fish 1	3 - 3.5 mg/l (Exposure time: 96 h - Species: Gambusia affinis)
EC50 Daphnia 1	4.6 mg/l (Exposure time: 12 h - Species: Daphnia magna)

### 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

## 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 / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

### 14.1. UN number

DOT UN/NA No. UN1805

### 14.2. UN proper shipping name

DOT Proper Shipping Name : Phosphoric Acid Solution

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

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Hazard labels (DOT) : 8 - Corrosive substances



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : A7 - Steel packagings 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: (image) Where:  $t_r$  is the maximum mean bulk temperature during transport, and  $t_f$  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

### Overland transport

Packing group (ADR) : III

Class (ADR) : 8 - Corrosive substances

Hazard identification number (Kemler No.) : 80

Classification code (ADR) : C1

Danger labels (ADR) : 8 - Corrosive substances



Orange plates : 

Tunnel restriction code : E

Excepted quantities (ADR) : E1



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### 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 : 5 L  
aircraft/rail (49 CFR 173.27)

DOT Quantity Limitations Cargo : 60 L  
aircraft only (49 CFR 175.75)

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Phosphoric acid (7664-38-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### C.I. Pigment Blue 28 (1345-16-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## SECTION 16: Other information

Full text of H- phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Resp Sens. 1B	Respiratory sensitization Category 1B
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1B	Skin sensitization Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

*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.*