Etchant Gel

Safety Data Sheet

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

Date of issue: 26 October 2017 Revision date: 10/26/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Trade name : Etchant Gel

Product code : S276

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Tooth etchant

1.3. Supplier

Parkell Inc.

300 Executive Drive

Edgewood, NY 11717

T (631) 249-1134

1.4. Emergency telephone number

Emergency number : INFOTRAC 1-352-323-3500 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Corrosive to metals, Category 1	H290	May be corrosive to metals.
Skin corrosion/irritation, Category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

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 vapors.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, eye 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, a doctor
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Phosphoric acid	(CAS-No.) 7664-38-2	30 - 45	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse immediately with plenty of water (for at least 30 minutes). Immediately call a POISON CENTER/doctor.

First-aid measures after eye contact : Rinse immediately with plenty of water for 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Prolonged exposure to liquid may cause a irritation to respiratory tract.

Symptoms/effects after skin contact : Causes severe skin burns and eye damage.

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

Symptoms/effects after ingestion : May cause corrosive to the digestive tract, mouth, throat and stomach.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Small fires: Extinguish with carbon dioxide or dry powder.
Larger fires: Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Minimal fire hazard. Flammable hydrogen gas may be formed in contact with metals. On combustion forms: Phosphine. Corrosive vapors.

Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.

Reactivity : The product contains a strong acid that reacts exothermically with water evolving high heat.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent firefighting water from entering the environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : The product contains a strong acid that reacts exothermically with water evolving high heat.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin, eyes and clothing. Avoid breathing mist or vapor. Wear recommended personal protective equipment.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Absorb spillage to prevent material damage.

6.4. Reference to other sections

Refer to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapor. Do not breathe vapors. Avoid contact with skin, eyes and clothing.

Hygiene measures : Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Incompatible materials. Keep container closed when not in use.

Incompatible materials : Oxidizing agent. Metals. Strong bases.

Packaging materials : Store in corrosive resistant container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)		
ACGIH	Local name	Phosphoric acid
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³
ACGIH	ACGIH STEL (mg/m³)	3 mg/m³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³
IDLH	US IDLH (mg/m³)	1000 mg/m³
NIOSH	NIOSH REL (TWA) (mg/m³)	1 mg/m³
NIOSH	NIOSH REL (STEL) (mg/m³)	3 mg/m³

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Impermeable acid resistant gloves.

Eye protection:

Chemical goggles or face shield.

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Gel.
Color	:	Blue
Odor	:	Odorless
Odor threshold	:	No data available
pH	:	1.6
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	1200 kg/m3 at 20□C
Solubility	:	Miscible in water
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	Not determined.
Oxidizing properties	:	Non oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains a strong acid that reacts exothermically with water evolving high heat.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

Flammable hydrogen gas may be formed in contact with metals. On combustion forms: Phosphine. Corrosive vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Causes severe skin burns and eye damage. pH: 1.6
Serious eye damage/irritation	:	Causes serious eye damage. pH: 1.6
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
Symptoms/effects after inhalation	:	Prolonged exposure to liquid may cause a irritation to respiratory tract.
Symptoms/effects after skin contact	:	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	:	Causes serious eye damage.
Symptoms/effects after ingestion	:	May cause corrosive to the digestive tract, mouth, throat and stomach.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product components are not classified as environmentally hazardous.

12.2. Persistence and degradability

Etchant Gel	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Etchant Gel	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on global warming	:	No known effects from this product.
GWPmix comment	:	No known effects from this product.
Other information	:	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to comply with applicable local, national and international regulation.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	:	UN1805 Phosphoric acid solution, 8, III
UN-No.(DOT)	:	UN1805
Proper Shipping Name (DOT)	:	Phosphoric acid solution
Class (DOT)	:	8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT)	:	III - Minor Danger
Hazard labels (DOT)	:	8 - Corrosive

DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Special Provisions (49 CFR 172.102)	:	A7, IB3, N34, T4, TP1
DOT Packaging Exceptions (49 CFR 173.xxx)	:	154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	A - The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	:	154
Other information	:	No supplementary information available.

Transportation of Dangerous Goods

Transport document description	:	UN1805 PHOSPHORIC ACID, LIQUID (SOLUTION), 8, III
UN-No. (TDG)	:	UN1805
Proper Shipping Name (Transportation of Dangerous Goods)	:	PHOSPHORIC ACID, LIQUID
TDG Primary Hazard Classes	:	8 - Class 8 - Corrosives
Packing group	:	III - Minor Danger
Explosive Limit and Limited Quantity Index	:	5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	5 L

Transport by sea

Transport document description (IMDG)	:	UN 1805 PHOSPHORIC ACID SOLUTION, 8, III
UN-No. (IMDG)	:	1805
Proper Shipping Name (IMDG)	:	PHOSPHORIC ACID SOLUTION
Class (IMDG)	:	8 - Corrosive substances
Packing group (IMDG)	:	III - substances presenting low danger
Limited quantities (IMDG)	:	5 L

Air transport

Transport document description (IATA)	:	UN 1805 Phosphoric acid, solution, 8, III
UN-No. (IATA)	:	1805
Proper Shipping Name (IATA)	:	Phosphoric acid, solution
Class (IATA)	:	8 - Corrosives
Packing group (IATA)	:	III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Phosphoric acid (7664-38-2)	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA

Phosphoric acid (7664-38-2)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Phosphoric acid (7664-38-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Phosphoric acid (7664-38-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Date of Issue : 26 October 2017

Other information : None.

Full text of H-statements:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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