MATERIAL SAFETY DATA SHEET: *Porcelain Etch Gel*

IDENTITY:

Trade Name: *Pulpdent Porcelain Etch Gel* Code: PEG, PEG-3, PPK

Chemical Description: 9.6% Hydrofluoric Acid in a proprietary gel base

Product Use: Dental etching material for porcelain

SECTION I

Pulpdent Corporation
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Watertown, MA 02472 USA

Phone Numbers:
24 Hour Emergency: (800) 535-5053
Customer Service: (800) 343-4342/ (617) 926-6666

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SECTION II - HAZARDOUS INGREDIENTS

Ingredients	*CAS RN*	*%*	*PEL/TLV*	*TWA*	*UN Number*
Hydrofluoric Acid	7664-39-3	9.6	3 ppm	--------	UN1790
Specially denatured alcohol	----------	5.3	-------	1000 ppm	UN1170

WARNING: ***VERY CORROSIVE / TOXIC****.* Even though Porcelain Etch Gel is diluted (9.6%) hydrofluoric acid, which has been buffered and incorporated into a gel, treat this product as very corrosive, i.e., AVOID ALL CONTACT WITH ABOVE PRODUCT.

DOT HAZARD CLASSIFICATION: Class 8 / PKG. Gr. II

WHMIS CLASSIFICATION: E: Corrosive material; D-1: Acute Toxic effects; D-2, Chronic toxic effects, Irritation.

NFPA HMIS RATING: HEALTH: 4 FLAMMABILITY: 0 REACTIVITY: 1

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 108.33^{o}C Specific Gravity: 1.18 Vapor Pressure: 10.00 mm Hg

Vapor Density: 0.7 Solubility in water: 100% Odor Threshold: 0.04 ppm

Odor and Appearance: Odorless, transparent yellow gel

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not available Flammable limits: Not available

Extinguishing Media: Carbon dioxide, dry chemical. Hazardous Combustion Products: Hydrogen fluoride.

Special Fire Fighting Procedures: Self contained breathing apparatus, with a full face piece, operated in a pressure demand or other positive pressure mode. Use extinguishing media appropriate to the surrounding fire conditions. Do not use water.

Unusual Fire / Explosion Hazards: Pressure will build to dangerous levels when closed containers are heated. Flammable when heated.

SECTION V - REACTIVITY DATA

Stability: Stable Conditions to avoid: High temperatures, direct sunlight.

Incompatibility: Alkalies, organic material, metals, bases, glass.

Hazardous Decomposition Products: Hydrogen fluoride.

Hazardous Polymerization: Will not occur. Conditions to avoid: None

SECTION VI - HEALTH HAZARD DATA

Summary of Acute Hazards: ***VERY CORROSIVE / TOXIC.*** This product, diluted, buffered hydrofluoric acid in a gel form, presents less of a hazard than liquid hydrofluoric acid. However, to be safe, it should still be treated as very corrosive. **Acute effects may be delayed**. Hydrofluoric acid may be fatal by ingestion, inhalation or skin absorption; causes severe burns.

Route of Exposure	*Signs & Symptoms*
Inhalation	May cause respiratory inflammation / delayed lung injury; may be fatal.
Eye Contact	May cause severe burns, loss of vision, chronic effects.
Skin Absorption	Toxic; readily penetrates skin. May destroy soft tissue, decalcify bone. May be fatal.
Skin Contact	Causes severe burns, sensation of which may be delayed; destructive to tissue.
Ingestion	Destructive to mucous membranes; causes burns in mouth, pharynx, gastrointestinal tract, abdominal pain. Possible delayed sensation of pain.

Summary of Chronic Hazards: Long term or chronic exposure to HF may result in fluorosis.

Carcinogenicity: Not known to be a carcinogen. Teratogenicity, Mutagenicity, Reproductive Toxicity: Not known

Emergency First Aid Procedures: All exposures require a medical evaluation.

Inhalation	Call for emergency medical care. Remove patient to fresh air. Administer oxygen if breathing is difficult, CPR if breathing has stopped.
Eye contact	Call for emergency medical care. Wash eyes and surrounding skin with running water for 15+ minutes. pH of tears should be 7.
Ingestion	Call for emergency medical care. Give a large quantity of water to dilute, but nothing by mouth if the person is unconscious. Milk may be soothing. Do NOT induce vomiting.
Skin Contact	Call for emergency medical care. Wash with running water for 15+ minutes. Apply 2.5% calcium gluconate gel to the exposed area (rubbing it in well) every 15 minutes; if calcium gluconate is not available, apply benzethonium chloride or benzalkonium chloride to the exposed area.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING & USE

Handling and Storage Precautions: Keep tightly closed, in a cool, dry, well-ventilated place away from heat, sparks, flame, organic substances and direct sunlight. Do not add any other material to container. Do not wash down the drain. Empty container may contain explosive or flammable residue. Do not allow food consumption or smoking while handling. Do not get in eyes, on skin, or on clothing. Wash well after use.

Release or Spill: Wear gloves, goggles and long sleeved lab coat. For a small spill: Absorb/wipe up spill with inert material, such as paper towels, and transfer to covered container for disposal. Wash spill site.

Waste Disposal Method: Follow all government regulations.

Other Precautions: Wash hands thoroughly after use.

SECTION VIII - CONTROL MEASURES

Respiratory Protection: Not necessary under normal conditions of use by dental personnel. Dental staff should wear face mask and use high speed evacuation tip in patient's mouth. Exposure > 3 ppm: self-contained breathing apparatus. Guard against aspiration into lungs.

Ventilation: Adequate to maintain exposure below 3 ppm. No special ventilation necessary under anticipated conditions of normal use.

Protective Gloves: Neoprene or polyethylene gloves. Eye Protection: Safety goggles are required.

Other Protective Clothing or Equipment: If used intraorally, place rubber dam around porcelain to be etched and use high speed evacuator tip or other protective device for patient. Mask all surrounding tissue. Emergency eye wash fountain should be close-by and well maintained..

Work/Hygienic Practices: Wash hands thoroughly after use. Wash contaminated clothing and protective devices before re-use.

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 Pulpdent Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.