

ULTRADENT
PRODUCTS, INC.
Porcelain Repair Kit

Description & Indications:

The Ultradent® Porcelain Repair kit contains everything needed to perform resin bonded repairs of porcelain restorations.

Procedure:

I. For an all-porcelain surface

A. Prepare area for porcelain repair

- Using a medium grit diamond bur or microabrasion unit (see step B below before microabrading) freshen the surfaces to be bonded. Roughen the surfaces approximately 1-2mm past the composite resin restoration margin. Whenever possible, long bevels will increase the adhesion of the repair.
- If a previous repair is present, remove all old composite for a fresh porcelain surface.

B. Isolate with OpalDam® light cure gingival barrier if microabrading

- Attach Black Micro® tip to OpalDam syringe.
- Completely rinse and dry teeth. Make sure the gingival third is thoroughly clean and dry.
- Express OpalDam resin to form gingival protection. Cover 4-6mm into the vestibule, approximately 1.5-2mm thick (Fig. 1). Extend approximately 0.5mm onto tooth. If excess resin flows onto surfaces to be prepared, partially light cure area for 5 seconds and use a hand instrument to trim back excess. Where open embrasure(s) exist, express resin through the opening onto lingual, filling the embrasure space completely. This will protect interdental papilla and lingual gingival tissue.
- After resin barrier is applied, cure resin with curing light for 20 seconds (Fig. 2). Use caution not to dislodge cured OpalDam barrier.

C. Protect the adjacent gingiva with EtchArrest® acid barrier/neutralizer

- Attach a Black Micro tip to the EtchArrest syringe.
- Apply a bead or layer of EtchArrest on all tissue surfaces that are to be protected (Fig 3).
- Leave EtchArrest in place for duration of etching.

D. Porcelain Etch

- Remove luer lock caps from syringes. Attach Inspiral® Brush tip to the syringe. For optimum control, deliver the material using the “palm grasp” method (Fig. 4).
- Before applying Porcelain Etch, dispense a small amount on to a mixing pad to ensure the evenness and flow. If resistance is felt, DO NOT proceed. Attach a new tip and test again before using on patient.
- Express an even coating of Porcelain Etch onto prepared porcelain using the Inspiral Brush tip. Assistant should hold vacuum tip adjacent to the surface during the Porcelain Etch application. This ensures removal of any irritating vapors while acid reacts on porcelain. Etch porcelain for one minute (Fig. 5-6).
- To neutralize the Porcelain Etch, blend EtchArrest into the etchant until the yellow color of the etchant is no longer identifiable (Fig. 7).
- Remove neutralized acid by placing the vacuum tip next to the surface and then rinse with water spray. Rinse thoroughly and dry. Porcelain should have frosted appearance. If not, check isolation and repeat etching.

E. Silanate

- Apply Ultradent® Silane with a Black Mini® Brush tip. Let evaporate for one minute. If not completely dry after one minute, air dry with oil-free air.

F. Bonding Agent

- Attach Inspiral Brush tip to PQ1® syringe.
- Scrub a puddled coat of PQ1 resin firmly into silanated surface for 15 seconds. Air thin to the point of losing milky appearance, but not beyond (Fig. 8). Maintain a contiguous glossy surface. Light cure for 20 seconds.



Fig. 1 Apply OpalDam to protect tissues surrounding the restoration.



Fig. 2 Light cure OpalDam for 20 seconds.



Fig. 3 Apply a thin layer of EtchArrest on all tissue surfaces that need to be protected during the etching process.

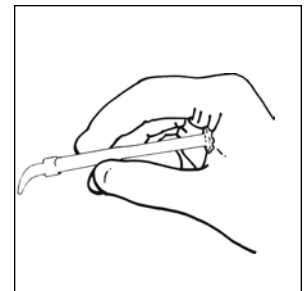


Fig. 4 For optimum control hold syringe using the “palm grasp” method.



Fig. 5 Express an even coating of Porcelain Etch onto prepared porcelain.



Fig. 6 Etch porcelain for one minute.



Fig. 7 To neutralize etchant, blend with EtchArrest until yellow color of Porcelain Etch is no longer visible.



Fig. 8 Scrub PQ1 into silanated surface for 15 seconds. Restore with PermaFlo. For the highest wear and durability, build incrementally with a composite paste such as Vit-I-essence or Amelogen.

G. Restore

1. Restore with a composite of choice. Ultradent recommends PermaFlo™ flowable composite for small repairs.
2. Attach a Micro 20 gauge tip securely to the PermaFlo syringe.
3. Apply initial layer of PermaFlo 0.5-1.5mm and light cure. Follow with 2-4mm increments. Cure each resin layer 20 seconds with a high-quality curing light. For optimal depth of cure, place light guide as close as possible to composite without touching.
4. For sculptability and highest wear, use an appropriate paste composite such as Vit-I-escence™ or Amelogen® for the last layer of restoration.
5. Contour and finish the restoration with finishing burs and Jiffy® polishers.
6. For optimal shine, use Ultradent® Diamond Polish with a felt wheel at a higher speed. An alternative to this procedure would be to use the Jiffy® Goat Brush instead of a felt wheel. Diamond Polish can either be applied to the restoration or directly onto the wheel.

II. For Porcelain surfaces with exposed metal (Fig. 9)

- A. Using an air abrasion unit or a diamond bur in a high speed hand piece, abrade the metal surface (Fig. 10).
- B. Follow steps I.A.-I.F. to complete the repair.
- C. Place a thin, even layer of PermaFlo Dentin Opaquer over the metal and light cure for 20 seconds (Fig. 11).
- D. Follow step I.G. to complete the repair

III. For a porcelain repair which includes tooth surfaces.

- A. Cover the gingiva with EtchArrest.
- B. Follow steps I.A.-I.E. for preparing and etching the porcelain surfaces.
- C. Etch the tooth surface for 15 seconds using Ultra-Etch® 35% phosphoric acid and rinse with air/water spray. Do not use hydrofluoric acid to etch enamel.
- D. Scrub PQ1 on the tooth surface and silanated porcelain. Light cure for 20 seconds.
- E. Build incrementally with a composite resin such as Vit-I-escence or Amelogen.

Precautions:

1. Remember to establish adequate isolation before using Ultra-Etch or Porcelain Etch. Isolation is also important to prevent contamination during bonding agent application. Use EtchArrest to protect tissues and neutralize hydrofluoric acid for situations where a rubber dam is not feasible. Confine etchants to areas being used. Do not use hydrofluoric acid on dentin or enamel. Any tissues or surfaces inadvertently exposed to acid should be immediately rinsed with plenty of water.
2. It is imperative to experiment with etch application on a paper pad BEFORE use on patients to become familiar with the ease of the viscous acid movement through the tips. If ease of flow is not experienced, stop and replace tip. Optimum resistance and control of flow is afforded with the Inspirial Brush tip.
3. Never attempt to deliver any Ultradent etching material through any brush tip other than the Inspirial Brush tip. Forcing syringe plunger can cause tip to come off with subsequent uncontrolled discharge of syringe contents.
4. Highest bond values for dentin are obtained when all water is blotted or barely blown off.
5. Any resin can cause skin sensitivity and could cause an allergic reaction. Be sure to wash area of skin exposure to completely remove the material. If dermatitis, rash or any other allergic reaction is observed, see a dermatologist or allergist.
6. Remember that light activated bonding agents are sensitive to ambient light; syringe caps should be replaced following use to prevent light exposure.
7. Resins should be kept in refrigerator for longer term storage. Room temperature is adequate for storage of product if it is used on a day to day basis.
8. Replace luer lock caps when syringes are not in use.
9. When dispensing intraorally, never force syringe plungers. If excess resistance to flow is experienced, replace tip and check flow before proceeding. Only use recommended tip with each specific material.
10. It is recommended to use Ultradent® Syringe Covers sealed with the Ultradent® Impulse Sealer for a protective barrier to prevent cross-contamination.
11. Tips are disposable.



Fig. 9 Tooth with exposed metal before porcelain repair.



Fig. 10 A thin layer of OpalDam is placed to protect adjacent tissues and restorations during microabrasion.



Fig. 11 Place a thin layer of PermaFlo over the exposed metal and light cure for 20 seconds.



Fig. 12 Place an even coating of Porcelain Etch and allow to etch for one minute.

ULTRADENT PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET

Controlled Product Yes No

SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material Name: Ultradent[®] Porcelain Etch
 Material Use: Etching of porcelain in dentistry.
 Date: May 13, 1998
 Prepared by: Steve Jensen, Chemist

Manufactured by: Ultradent Products, Inc.
 505 West 10200 South
 South Jordan, Utah 84095 USA
 Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)
 EC Representative

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
Hydrofluoric Acid	9.5%	LD ₅₀ Subcutaneous-FRON 12 mg/kg LC ₅₀ 1774 ppm/hr Monkey - Inhalation	7664-39-3

SECTION III - HAZARDS IDENTIFICATION

Adverse Human Effects and Symptoms: Hydrofluoric acid is toxic. Acid burns skin, can cause possible damage to eyes, and possible systemic poisoning if ingested.

SECTION IV - FIRST AID MEASURES

Inhalation: N/A
 Eye Contact: Flush immediately with water. Get immediate medical attention.
 Skin Contact: Flush immediately with water at least 15 minutes. Apply calcium gluconate gel antidote if available.
 Ingestion: Do NOT induce vomiting. Give large amounts of water or milk. Call physician.

SECTION V - FIRE-FIGHTING MEASURES

Flammability: If Yes, Under Which Conditions: No
 Means of Extinction: N/A
 Protective Equipment for Firefighters: N/A

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions: Use caution when handling.
 Methods for Cleaning: Neutralize with baking soda. Wipe up with large volumes of water.

SECTION VII - HANDLING AND STORAGE

Handling Precautions: Use protective eyewear and rubber gloves.
 Storage Requirements: Store at room temperature.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Not necessary for the small amounts used in dentistry.
 Eye Protection: Protective eyewear.
 Hand Protection: Rubber gloves.
 Skin Protection: Lab coat.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Yellow gel.
 Odor: Acidic.
 pH: <2
 Solubility in Water: Completely.
 Melting Point/Range: N/A

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Conditions and Materials to Avoid: Strong bases, metals, metal oxides, inorganic acids, organic anhydrides. Note: Etches glass.
 Hazardous Decomposition Products: Corrosive vapors.

SECTION XI - TOXICOLOGICAL INFORMATION

Route of Entry: Skin Contact Skin Absorption Eye Contact Inhalation Acute Inhalation Chronic Ingestion
 Effects and Symptoms of Short-Term Exposure: Skin: Burns. Eyes: Irritation and possible damage. Ingestion: Tissue damage and possible systemic poisoning.
 Chronic Effects and Symptoms of Long-Term Exposure: Skin: Burns. Eyes: Irritation and damage. Ingestion: Tissue damage and possible systemic poisoning.
 Sensitization: N/A

SECTION XII - ECOLOGICAL INFORMATION

Biodegradability: Not defined.
 Further Details: N/A

SECTION XIII - DISPOSAL CONSIDERATIONS

Method of Waste Disposal: In accordance with government regulations.

SECTION XIV - TRANSPORT INFORMATION

Not defined.

SECTION XV - REGULATORY INFORMATION

Not defined.

SECTION XVI - OTHER INFORMATION

FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

ULTRADENT PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET

Controlled Product Yes No

SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material Name: PQ1[®]
 Material Use: Single syringe bonding agent.
 Date: August 5, 1998
 Prepared by: Steve Jensen, Chemist

Manufactured by: Ultradent Products, Inc.
 505 West 10200 South
 South Jordan, Utah 84095 USA
 Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)
 EC Representative

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
2-hydroxyethyl methacrylate	15%	5.6 g/kg Oral - Rat	868-77-9
camphor quinone	>1%	---	10373-78-1

SECTION III - HAZARDS IDENTIFICATION

Adverse Human Effects and Symptoms: Possible skin and eye irritation.

SECTION IV - FIRST AID MEASURES

Inhalation: N/A
 Eye Contact: Flush with saline solution. Contact a physician.
 Skin Contact: Wash with soap and water.
 Ingestion: N/A

SECTION V - FIRE-FIGHTING MEASURES

Flammability: If Yes, Under Which Conditions: No
 Means of Extinction: CO₂, dry chemical.
 Protective Equipment for Firefighters: Not defined.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions: Not defined.
 Methods for Cleaning: Use dry cloth and alcohol.

SECTION VII - HANDLING AND STORAGE

Handling Precautions: None.
 Storage Requirements: Room temperature.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: N/A
 Eye Protection: Protective eyewear.
 Hand Protection: Latex gloves.
 Skin Protection: Lab coat.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Light yellow opaque resin.
 Odor: Methacrylate.
 pH: N/A
 Solubility in Water: Partial.
 Melting Point/Range: N/A

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Conditions and Materials to Avoid: Exposure to light initiates polymerization.
 Hazardous Decomposition Products: CO₂

SECTION XI - TOXICOLOGICAL INFORMATION

Route of Entry: Skin Contact Skin Absorption Eye Contact Inhalation Acute Inhalation Chronic Ingestion
 Effects and Symptoms of Short-Term Exposure: Eye: Irritation. Skin: Slight irritation.
 Chronic Effects and Symptoms of Long-Term Exposure: Eye: Irritation and possible damage. Skin: Possible sensitization.
 Sensitization: Slight.

SECTION XII - ECOLOGICAL INFORMATION

Biodegradability: Not defined.
 Further Details: None.

SECTION XIII - DISPOSAL CONSIDERATIONS

Method of Waste Disposal: In accordance with governmental regulations.

SECTION XIV - TRANSPORT INFORMATION

Not defined.

SECTION XV - REGULATORY INFORMATION

Not defined.

SECTION XVI - OTHER INFORMATION

FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

ULTRADENT PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET

Controlled Product Yes No

SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material Name: Ultradent[®] Silane
 Material Use: Resin coupling agent.
 Date: May 14, 1998
 Prepared by: Steve Jensen, Chemist

Manufactured by: Ultradent Products, Inc.
 505 West 10200 South
 South Jordan, Utah 84095 USA
 Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)
 EC Representative

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
Isopropanol	92%	LD ₅₀ 5045 mg/kg Rat - oral	67-63-0
Methacryloxy propyl trimethoxy silane	---	LD ₅₀ >5ml/kg Rat - oral	2530-85-0

SECTION III - HAZARDS IDENTIFICATION

Adverse Human Effects and Symptoms: May cause eye irritation. Do not ingest.

SECTION IV - FIRST AID MEASURES

Inhalation: Remove to properly vented area.
 Eye Contact: Flush immediately with water or saline. Get medical attention.
 Skin Contact: Wash with soap and water.
 Ingestion: Not likely with small amounts used in dentistry.

SECTION V - FIRE-FIGHTING MEASURES

Flammability: If Yes, Under Which Conditions: Spark, flame, or excessive heat.
 Means of Extinction: Chemical, CO₂
 Protective Equipment for Firefighters: Standard clothing and respiratory protection.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions: Treat as flammable.
 Methods for Cleaning: Wipe up with soap and water.

SECTION VII - HANDLING AND STORAGE

Handling Precautions: Use protective eyewear.
 Storage Requirements: Store at room temperature.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: N/A
 Eye Protection: Protective eyewear.
 Hand Protection: Latex gloves.
 Skin Protection: Lab coat.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Colorless liquid.
 Odor: Alcohol odor.
 pH: N/A
 Solubility in Water: Partial.
 Melting Point/Range: N/A

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Conditions and Materials to Avoid: Strong oxidizing agents.
 Hazardous Decomposition Products: CO₂

SECTION XI - TOXICOLOGICAL INFORMATION

Route of Entry: Skin Contact Skin Absorption Eye Contact Inhalation Acute Inhalation Chronic Ingestion
 Effects and Symptoms of Short-Term Exposure: Eyes: Irritation (vapor), can cause damage (liquid). Skin: May cause irritation or burning.
 Chronic Effects and Symptoms of Long-Term Exposure: Eye: Irritation and possible transitory blindness. Inhalation of vapor: Respiratory depression. Skin: May cause irritation or burning.
 Sensitization: N/A

SECTION XII - ECOLOGICAL INFORMATION

Biodegradability: Not defined.
 Further Details: N/A

SECTION XIII - DISPOSAL CONSIDERATIONS

Method of Waste Disposal: In accordance with government regulations.

SECTION XIV - TRANSPORT INFORMATION

Not defined.

SECTION XV - REGULATORY INFORMATION

Not defined.

SECTION XVI - OTHER INFORMATION

FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

ULTRADENT PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET

Controlled Product Yes No

SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material Name: PermaFlo[®]
 Material Use: Dental Flowable Composite and Light-Cure Cement
 Date: November 17, 1997
 Prepared by: Steve Jensen, Chemist

Manufactured by: Ultradent Products, Inc.
 505 West 10200 South
 South Jordan, Utah 84095 USA
 Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)
 EC Representative

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
Methacrylate monomer	28%	---	---
Alkylamino methacrylate	1%	LD ₅₀ 1751 mg/kg Rat - Oral	2867-47-2
Camphorquinone	1%	---	10373-78-1

SECTION III - HAZARDS IDENTIFICATION

Adverse Human Effects and Symptoms: None.

SECTION IV - FIRST AID MEASURES

Inhalation: None.
 Eye Contact: Flush with lots of water or saline.
 Skin Contact: Wash with soap and water.
 Ingestion: None.

SECTION V - FIRE-FIGHTING MEASURES

Flammability: If Yes, Under Which Conditions: Avoid open flame.
 Means of Extinction: CO₂, dry chemical.
 Protective Equipment for Firefighters: Standard fire fighting equipment.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions: None.
 Methods for Cleaning: Wipe up with dry cloth and alcohol.

SECTION VII - HANDLING AND STORAGE

Handling Precautions: Avoid high temperature storage.
 Storage Requirements: Refrigerate if not used on a daily basis.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: N/A
 Eye Protection: Protective Eyewear.
 Hand Protection: Latex gloves.
 Skin Protection: Lab coat.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Viscous paste.
 Odor: Odorless.
 pH: N/A
 Solubility in Water: Insoluble.
 Melting Point/Range: N/A

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Conditions and Materials to Avoid: Light exposure initiates polymerization.
 Hazardous Decomposition Products: CO₂

SECTION XI - TOXICOLOGICAL INFORMATION

Route of Entry: Skin Contact Skin Absorption Eye Contact Inhalation Acute Inhalation Chronic Ingestion
 Effects and Symptoms of Short-Term Exposure: Eye: Irritation.
 Chronic Effects and Symptoms of Long-Term Exposure: Eye: Irritation. Skin: Slight irritation.
 Sensitization: Slight.

SECTION XII - ECOLOGICAL INFORMATION

Biodegradability: Not established.
 Further Details: None.

SECTION XIII - DISPOSAL CONSIDERATIONS

Method of Waste Disposal: In accordance with government regulations.

SECTION XIV - TRANSPORT INFORMATION

Not regulated.

SECTION XV - REGULATORY INFORMATION

Not defined.

SECTION XVI - OTHER INFORMATION

FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

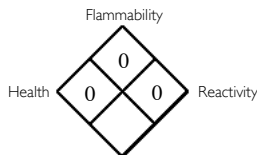
ULTRADENT MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING			
Material Name: OpalDam [®]		Manufactured by: Ultradent Products, Inc. 505 West 10200 South South Jordan, Utah 84095 USA	
Material Use: Light cure gingival barrier.		Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)	
Date: July 14, 1997		EC Representative:	
Prepared by: Steve Jensen, Chemist			
SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS			
Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
Diurethane dimethacrylate	80%	LD ₅₀ 5000mg/kg Oral - Rat	41137-60-4
SECTION III - HAZARDS IDENTIFICATION			
Adverse Human Effects and Symptoms: Not defined.			
SECTION IV - FIRST AID MEASURES			
Inhalation: N/A	Eye Contact: Wash with lots of saline.	Ingestion: N/A	
Skin Contact: Clean with soap and water.			
SECTION V - FIRE-FIGHTING MEASURES			
Flammability: If Yes, Under Which Conditions: Open flame, high temperatures.			
Means of Extinguishment: CO ₂ , dry chemical.			
SECTION VI - ACCIDENTAL RELEASE MEASURES		SECTION VII - HANDLING AND STORAGE	
Personal & Environmental Precautions: Not established.		Protective Equipment for Firefighters: Standard clothing and equipment.	
Methods for Cleaning: Clean with alcohol.		Handling Precautions: N/A	
Storage Requirements: Room temperature.		Storage Requirements: Room temperature.	
SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION			
Respiratory Protection: N/A		Eye Protection: Protective.	
Hand Protection: Latex gloves.		Skin Protection: Lab coat.	
SECTION IX - PHYSICAL & CHEMICAL PROPERTIES			
Appearance: Mica white gel.		Solubility in Water: Insoluble.	Melting Point/Range: N/A
Odor: Acrylic.	pH: N/A	Other Data: None.	
SECTION X - STABILITY AND REACTIVITY			
Chemical Stability: Conditions and Materials to Avoid: Light initiates polymerization.		Hazardous Decomposition Products: CO ₂	
SECTION XI - TOXICOLOGICAL INFORMATION			
Route of Entry: <input type="checkbox"/> Skin Contact <input type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input type="checkbox"/> Inhalation Acute <input type="checkbox"/> Inhalation Chronic <input type="checkbox"/> Ingestion			
Effects and Symptoms of Short-Term Exposure: Eye: Irritation.			
Chronic Effects and Symptoms of Long-Term Exposure: Eye: Irritation.			
Sensitization: Slight.		Irritation of Product: Slight.	
SECTION XII - ECOLOGICAL INFORMATION		SECTION XIII - DISPOSAL CONSIDERATIONS	
Biodegradability: Not defined.		Method of Waste Disposal: In accordance with government regulations.	
Further Details: N/A		Further Details: N/A	
SECTION XIV - TRANSPORT INFORMATION		SECTION XV - REGULATORY INFORMATION	
No limitations.		Not defined.	
SECTION XVI - OTHER INFORMATION			
FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.			

ULTRADENT MATERIAL SAFETY DATA SHEET

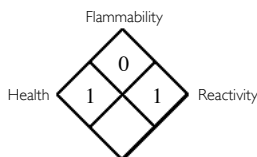
SECTION I - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING			
Material Name: EtchArrest [®]		Manufactured by: Ultradent Products, Inc. 505 West 10200 South South Jordan, Utah 84095 USA	
Material Use: Acid Barrier/Neutralizer		Emergency Contact: 1-800-552-5512 or 1-801-572-4200 (Outside USA)	
Date: February 4, 1999		EC Representative:	
Prepared by: Steve Jensen, Chemist			
SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS			
Active Ingredients	Approximate Concentration %	LD ₅₀ /LC ₅₀ Specify Species and Route	C.A.S. N.A. or U.N. Numbers
Sodium bicarbonate	~10%	---	144-55-8
SECTION III - HAZARDS IDENTIFICATION			
Adverse Human Effects and Symptoms: None.			
SECTION IV - FIRST AID MEASURES			
Inhalation: N/A	Eye Contact: N/A	Ingestion: N/A	
Skin Contact: N/A			
SECTION V - FIRE-FIGHTING MEASURES			
Flammability: If Yes, Under Which Conditions: N/A			
Means of Extinguishment: N/A			
SECTION VI - ACCIDENTAL RELEASE MEASURES		SECTION VII - HANDLING AND STORAGE	
Personal & Environmental Precautions: None.		Protective Equipment for Firefighters: N/A	
Methods for Cleaning: Wipe off with a cloth and water.		Handling Precautions: None.	
Storage Requirements: Store at room temperature.		Storage Requirements: Store at room temperature.	
SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION			
Respiratory Protection: N/A		Eye Protection: N/A	
Hand Protection: N/A		Skin Protection: N/A	
SECTION IX - PHYSICAL & CHEMICAL PROPERTIES			
Appearance: Light purple gel.		Solubility in Water: Partial.	Melting Point/Range: Not defined.
Odor: None.	pH: Basic.	Other Data: None.	
SECTION X - STABILITY AND REACTIVITY			
Chemical Stability: Conditions and Materials to Avoid: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Hazardous Decomposition Products: CO ₂	
SECTION XI - TOXICOLOGICAL INFORMATION			
Route of Entry: <input type="checkbox"/> Skin Contact <input type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input type="checkbox"/> Inhalation Acute <input type="checkbox"/> Inhalation Chronic <input type="checkbox"/> Ingestion			
Effects and Symptoms of Short-Term Exposure: N/A			
Chronic Effects and Symptoms of Long-Term Exposure: N/A			
Sensitization: N/A		Irritation of Product: Slight.	
SECTION XII - ECOLOGICAL INFORMATION		SECTION XIII - DISPOSAL CONSIDERATIONS	
Biodegradability: Yes.		Method of Waste Disposal: In accordance with government regulations.	
Further Details: None.		Further Details: None.	
SECTION XIV - TRANSPORT INFORMATION		SECTION XV - REGULATORY INFORMATION	
Not defined.		Not defined.	
SECTION XVI - OTHER INFORMATION			
FOR DENTAL USE ONLY. Use as directed. The information and recommendations are taken from sources (raw material MSDS(s) and manufacturer's knowledge) believed to be accurate; however, Ultradent Products, Inc., makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.			

EtchArrest



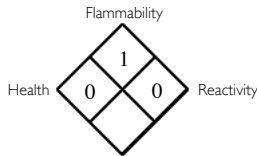
MSDS Included.

PQ1



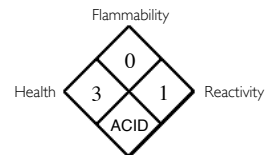
MSDS Included.

OpalDam



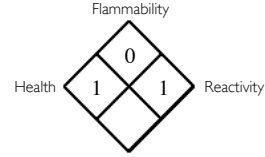
MSDS Included.

Porcelain Etch



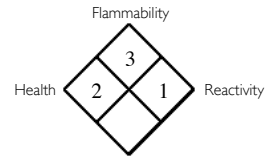
MSDS Required and Included.

PermaFlo



MSDS Included.

Silane



MSDS Required and Included.

HAZARD RATING

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

Ultradent Porcelain Repair Kit REF/UP 1108

- Contents:
- 1-1.2ml prefilled syringe OpalDam
 - 1-1.2ml prefilled syringe EtchArrest
 - 1-1.2ml prefilled syringe Porcelain Etch
 - 1-1.2ml prefilled syringe Silane
 - 1-1.2ml prefilled syringe PQ1

1-1.2ml prefilled syringe PermaFlo Dentin Opaquer

- 20 - Black Mini Brush tips
- 20 - Micro 20 gauge tips
- 20 - Black Micro tips
- 20 - Inspiral Brush tips

U.S. Federal Law restricts this device to sale by or on the order of a dentist. Keep out of reach of children.

For immediate reorder and/or complete descriptions of Ultradent's product line, refer to Ultradent's catalog or call Toll Free: 1-800-552-5512. Outside U.S. call (801) 572-4200.

Key:



Use by Date



See Instructions For Use



Batch Code

REF Catalog Number



Do Not Reuse

ULTRADENT PRODUCTS, INC.
505 West 10200 South
South Jordan, Utah 84095
www.ultradent.com