

## SECTION 16: Other information

### Relevant R-phrases and/or H-statements (number and full text):

- R11: Highly flammable.  
R22: Harmful if swallowed.  
R34: Causes burns.  
R36/37/38: Irritating to eyes, respiratory system and skin.  
R36/38: Irritating to eyes and skin.  
R43: May cause sensitization by skin contact.  
R50: Very toxic to aquatic organisms.  
Acute Tox. (D), Cat. 4: Acute Toxicity (Dermal), Category 4  
Acute Tox. (O), Cat. 4: Acute Toxicity (Oral), Category 4  
Aquatic Acute, Cat. 1: Acute Hazards to the Aquatic Environment, Category 1  
Aquatic Chronic, Cat. 1: Chronic Hazards to the Aquatic Environment, Category 1  
Eye Irr., Cat. 2B: Eye Irritation, Category 2B  
Eye Irr., Cat. 2: Eye Irritation, Category 2  
Flam. Liq., Cat. 2: Flammable Liquids, Category 2  
STOT SE, Cat. 3: Target Organ Toxicity (Single exposure), Category 3  
Skin Corr., Cat. 1A: Skin Corrosion, Category 1A  
Skin Irr., Cat. 2: Skin Irritation, Category 2  
Skin Sens., Cat. 1B: Skin Sensitization, Category 1B  
H225: Highly flammable liquid and vapour.  
H227: Combustible liquid.  
H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H410: Very toxic to aquatic life with long lasting effects.

Prepared by: Peter G. Jordan

Revision summary: This SDS replaces the 12/22/2015 SDS. Revised: Section 1: MSDS No. Section 2: EMERGENCY OVERVIEW - IMMEDIATE CONCERNS 2.3. Other hazards. Section 5: EXTINGUISHING MEDIA, FIRE FIGHTING EQUIPMENT. Section 8: Section 11: ACUTE (DERMAL LD50 (rabbit), DERMAL LD50 (rabbit), DERMAL LD50 (rabbit), ORAL LD50 (rat), INHALATION LC50 (rat), ORAL LD50 (rat), ORAL LD50 (rat), INHALATION LC50 (rat), INHALATION LC50 (rat), INHALATION LC50 (rat), ORAL LD50 (rat) ACUTE, GENERAL COMMENTS. Section 12: CHEMICAL FATE INFORMATION, DISTRIBUTION, ENVIRONMENTAL DATA, BIOACCUMULATION/ACCUMULATION, AQUATIC TOXICITY (ACUTE) (48-HOUR EC50, 96-HOUR EC50), SECTION 12: Ecological information. Section 14: VESSEL (IMO/IMDG) - MARINE POLLUTANT #1 ROAD AND RAIL (UK only) (CDG) - SPECIAL PROVISIONS SECTION 14: Transport information, ADR - road, IMDG - sea, IATA - air.

Section 15: GENERAL COMMENTS, RoHS.  
Section 16: GENERAL STATEMENTS.  
General statements: NAP = Not Applicable  
NE = Not Established  
TLV = Threshold Limit Value  
PEL = Permissible exposure limits  
MAK = Maximum Workplace Concentration  
STEL = Short-term exposure limit  
STEV = Short-term exposure value  
TWA = Time Weighted Average  
PPE = Personal Protective Equipment

Manufacturer disclaimer: FOR DENTAL USE ONLY: Use as directed. The information and recommendations are taken from sources (raw material SDS(s) and manufacturer's knowledge) believed to be accurate; however, the manufacturer, 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.

**WARRANTY:** Clinician's Choice® Dental Products Inc. will replace MPa MAX, free of charge, if proven to be defective and when stored according to the manufacturer's specifications. Clinician's Choice Dental Products Inc. does not accept liability for any loss or damage, direct or consequential, arising out of the use of or the inability to use this product. Before using, the user shall determine the suitability of the product(s) for its intended use and the user assumes all risk and liability whatsoever in connection therewith.

**CAUTION:** U.S. Federal law restricts this device to sale by, or on the order of, a dentist.

982605  
042021

### DESCRIPTION:

MPa MAX is a bottle delivered bonding resin. It can be used with a total-etch technique. It is 7.5% filled with an ethyl alcohol solvent carrier and will cure with most high intensity lights including LEDs. MPa MAX contains 0.2% chlorhexidine which may ensure long term bond strengths.

### INDICATIONS FOR USE:

Use for all bonding needs in restorative dentistry.  
Use MPa MAX in conjunction with MAX-ETCH, bonds to the following materials:

- Dentin and enamel
- Porcelain (Hydrofluoric acid and silane required)
- Zirconia
- Metal
- Composite

## Instructions For Use

### DIRECT BONDING TECHNIQUE AND PORCELAIN/ZIRCONIA REPAIR

#### 1. PREPARE:

- Dentin/Enamel:** Isolate, clean and remove caries ensuring all non-mineral dentin is removed. For abrasion/abfraction Class V preps, roughen with a diamond bur.
- Composite:** Remove weakened areas of existing composite. Roughen surface with diamond bur.
- Metal:** Microabrade surface.
- Zirconia:** Clean surface and remove weakened zirconia with a diamond bur.
- Porcelain:** Roughen and remove weakened porcelain with diamond bur. Clean fractured porcelain area for 5 seconds with MAX-ETCH. Rinse and dry.

#### 2. ETCH:

- Total-Etch Technique – dentin/enamel, composite and metal**
  - Apply MAX-ETCH to all surfaces of the tooth preparation for 20 seconds.
  - Rinse thoroughly for 5 seconds.
  - Lightly dry using the air/water syringe or by placing the high volume suction directly over the preparation. Leave the surface slightly damp.
  - Proceed to "Bond" step below.
- Porcelain Etch – CAUTION – use proper isolation such as an acid neutralizing barrier when using hydrofluoric acid (HF). Do not allow hydrofluoric acid to touch gingiva or dentin.**
  - Apply hydrofluoric acid to fractured area for 90 seconds.
  - Suction acid from surface THEN thoroughly rinse and dry.
  - Apply MAX-ETCH for 5 seconds to remove porcelain salts and debris formed by HF etching. Rinse and dry.
  - Apply puddle coat of silane for 60 seconds.
  - Dry thoroughly. DO NOT RINSE.
  - Proceed to "Bond" step below.
- Zirconia – DO NOT ETCH OR USE SILANE**
  - Air-abrade fractured surface of prosthesis, rinse and dry.
  - Apply zirconia primer to fractured area following manufacturer's instructions.
  - Proceed to "Bond" step below.

### 3. BOND:

- Dispense 1-3 drops of MPa MAX into the "B" side of the disposable dappen dish.
- Using the Micro Applicator Brush, apply a puddle coat of MPa MAX to the preparation and gently agitate for 10 seconds.
- Thin/dry for 10 seconds using ¼ to ½ air pressure. Preparation should appear shiny.
- Light-cure for 10 seconds (20 seconds for lights with output <600mW/cm2).
- Restore with flowable or packable composite as per manufacturer's instructions.

### INDIRECT BONDING TECHNIQUE

#### INDIRECT CROWNS, INLAYS, ONLAYS, VENEERS, ZIRCONIA

##### 1. PREPARE:

- Remove temporary, clean preparation, rinse, and dry.
- Verify prosthetic fit.
- Prepare inside surface of prosthesis.

##### i. Metal based:

- Microabrade (sandblast) inside surface of prosthesis.
- Rinse and dry surface.

##### ii. Ceramic/porcelain:

- Apply hydrofluoric acid (HF) to inside surface of prosthesis per manufacturer's directions, rinse and dry.
- Apply MAX-ETCH for 5 seconds to remove porcelain salts and debris formed by HF etching. Rinse and dry.
- Apply silane to inside surface of prosthesis for 1 minute, dry and set prosthesis aside. Do not rinse.

##### iii. Zirconia: DO NOT ETCH OR USE SILANE

- Air abrade internal surface of prosthesis, rinse and dry.
- Apply a zirconia primer as per manufacturer instructions.

##### 2. ETCH – Prepare tooth surface:

##### a. Total-Etch Technique – dentin/enamel, composite and metal.

- Apply MAX-ETCH to all surfaces of the tooth preparation for 20 seconds.
- Rinse thoroughly for 5 seconds.
- Lightly dry using the air/water syringe or by placing the high volume suction directly over the preparation. Leave the surface slightly damp.
- Proceed to "Bond" step below.

##### b. Porcelain Etch – CAUTION – use proper isolation such as an acid neutralizing barrier when using hydrofluoric acid (HF). Do not allow hydrofluoric acid to touch gingiva or dentin.

- Apply hydrofluoric acid to fractured area per manufacturer's instructions.
- Suction acid from surface THEN thoroughly rinse and dry.
- Apply MAX-ETCH for 5 seconds to remove porcelain salts and debris formed by HF etching. Rinse and dry.
- Apply puddle coat of silane for 60 seconds.
- Dry thoroughly. DO NOT RINSE.
- Proceed to "Bond" step below.

##### c. Zirconia – DO NOT ETCH OR USE SILANE

- Air-abrade internal surface of prosthesis, rinse and dry.
- Apply zirconia primer to fractured area following manufacturer's instructions.
- Proceed to "Bond" step below.

### 3. BOND:

- Dispense 1-3 drops of MPa MAX into the "B" side of the disposable dappen dish.
- Using the Micro Applicator Brush, apply a puddle coat of MPa MAX to the preparation and gently agitate for 10 seconds.
- Thin/dry for 10 seconds using ¼ to ½ air pressure. Preparation should appear shiny.
- Light-cure for 10 seconds (20 seconds for lights with output <600mW/cm2).

### 4. CEMENT:

- Apply light-cure cement for translucent veneers or dual-cure resin cement to other prostheses and follow manufacturer's instructions for use.

**NOTE:** Immediate Dentin Sealing requires Direct Technique steps 2a and 3 at left.

Apply glycerin over MPa MAX and light-cure 10 seconds. Rinse glycerin. Make final impression. Re-apply glycerin to preparation as a separating medium prior to cementing the temporary in place.

### POST AND CORE

#### 1. PREPARE:

- Drill post hole using a rubber stop and appropriate size Macro-Lock Illusion XRO drill.
- Thoroughly rinse the post space for 10 seconds and dry from the bottom of the preparation up.
- Verify post (Macro-Lock Illusion X-RO) fit and cut to desired length using a high speed diamond disc. **NOTE:** Carbide and operative burs may fray the fibers.

#### 2. ETCH:

##### a. Total-Etch Technique:

- Attach a tip to the MAX-ETCH syringe.
- Start apically and fill post space coronally. Apply to coronal preparation. Etch for 20 seconds.
- Suction off excess etchant.
- Rinse thoroughly and lightly air dry, leaving the post space slightly damp.
- Proceed to "Bond" step below.

#### 3. BOND:

- Dispense 1-3 drops of MPa MAX into the "B" side of the disposable dappen dish.
- Apply MPa MAX to the post space and gently agitate the full length of the canal and tooth preparation for 10 seconds.
- Thoroughly remove excess.
- Thin/dry the outer preparation for 10 seconds using ¼ to ½ air pressure. Preparation should appear shiny. Remove excess MPa MAX in the depths of the canal with a paper point.
- Light-cure down the post space for 20 seconds (40 seconds for lights with output <600mW/cm2).

### POST CEMENTATION AND CORE BUILD-UP

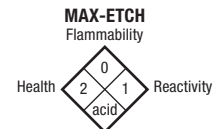
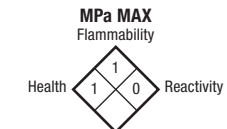
- Remove cap from the ZIRCULES cartridge.
- Place a mixing tip onto the dual barrel cartridge lining up the two ports. Twist clockwise until locked in place.
- Attach the flexible intraoral tip to the mixing tip for delivery directly into the canal from the cartridge.
- Express a small amount before placing in the post space.
- Insert the tip into the post space to full depth.
- Using even pressure deliver ZIRCULES starting apically and moving coronally.

- Immediately** insert the post (Macro-Lock Illusion X-RO) slowly, displacing the excess cement.
- Place curing light directly above the post and light-cure 20 seconds to stabilize the post; 40 seconds for lights with output <600mW/cm2 (ZIRCULES self-cures in 3:30 minutes).
- Continue building layers of ZIRCULES around post as needed. **NOTE:** Light-cure for 20 seconds per layer to gel and form core. Do a final cure on core for 40 seconds.

Do not remove mixing tip until next use. Disinfect syringe and mixing tip.

### PRECAUTIONS AND WARNINGS:

- Carefully read and understand all instructions before using MPa MAX.
- For professional use only.
- Re-cap immediately following use to avoid polymerization.
- Always verify material flow of syringe materials prior to applying intraorally. If resistance is met, replace tip and re-check.
- Keep caps on the bottle until use.
- Clinician and patient should wear UV protective eyewear when curing resin materials.
- If not used daily, refrigerate product.
- Bring refrigerated products to room temperature before using.
- To optimize bond strengths use oil-free and moisture-free air.
- Redirect overhead light to prevent premature polymerization of all resin based materials.
- Resins can be sensitizing. Avoid repeated contact of uncured dental resin with skin. Do not use on patients with a known sensitivity to acrylates or other resins. If allergic reaction, dermatitis or rash develops, consult a physician.
- Dispose of tips, empty syringes and bottles properly.
- Keep out of reach of children.
- Do not use after expiration date noted on containers.
- Re-cap, disinfect and wipe syringe with an intermediate level disinfectant between uses. If disposable syringe cover is used, remove tip, re-cap, and discard syringe cover.
- Tips are disposable. To avoid cross-contamination, do not re-use tips.
- Keep products out of direct heat/sunlight.
- Isolate strong chemicals to area of treatment.



### HAZARD RATING

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

 Clinician's Choice®

# MPa™ Max

Maximum Performance Adhesive

1.800.265.3444  
519.641.3066

www.clinicianschoice.com

