

Caulk

1. Product and Company Identification	
Product Name TPH <sup>®</sup> 3 Micro Matrix Restorative	MSDS Code Number 542799
Trade Name & Synonyms TPH <sup>®</sup> 3 Micro Matrix Restorative	Date of Last Revision 04/22/04
Chemical Name Dimethacrylate Resins	Manufacturer DENTSPLY/Caulk
C.A.S. Number N. A.	Address 38 West Clarke Avenue Milford DE 19963-0359 <a href="http://www.caulk.com">http://www.caulk.com</a>
Grades or Minor Variant Identities N. A.	Information Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
Product Use (for Canada) N. A.	Emergency Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

2. Composition Of Ingredients			
Hazardous Components	C.A.S. Number	Exposure Limits	%
Titanium Dioxide	13463-67-7	10 mg/m <sup>3</sup>	< than 1
Hydrophobic Amorphous Fumed Silica	68611-44-9	10 mg/m <sup>3</sup>	< than 3
Silica (Amorphous)	67762-90-7	3 mg/m <sup>3</sup>	< than 3
Barium boron fluoro alumino silicate glass	65997-18-4	10 mg/m <sup>3</sup>	< than 30
Barium boron alumino silicate glass	65997-17-3	10 mg/m <sup>3</sup>	< than 50
Urethane modified Bis-GMA dimethacrylate	126646-17-1	N.E.	< than 10
Polymerizable dimethacrylate resin	24448-20-2	N.E.	< than 10
Polymerizable dimethacrylate resin	109-16-0	N.E.	< than 10

Other Information: Other colorants are inorganic iron oxides

3. Hazard Identification					
Emergency Overview Material is irritating to eyes, respiratory system and skin.					
Routes of Exposure	Signs and Symptoms	Single, Repeated, or Lifetime Exposure	Severity (Mild, Moderate, Severe)	Acute and Chronic Health Effect(s)	Target Organ(s)
Eye	Material can cause irritation.	Single	Moderate	Irritation and possible corneal damage	N. A.
Skin	Material may be an irritant	Single & Repeated	Moderate	Irritation or possible allergic response. Severe allergic Response may result in breathing difficulties.	N. A.
Inhalation	N. A.	N. A.	N. A.	N. A.	N. A.
Ingestion	Material is probably not harmful if swallowed	N. A.	Mild	N. A.	N. A.
Other	N. A.	N. A.	N. A.	N. A.	N. A.
Medical Conditions Aggravated by Exposure Open sores and wounds of the skin. Individuals with known sensitivity to methacrylates, acrylates, or urethane dimethacrylate resin used in Dental restorative products.					
Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.					
Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.					
NFPA Hazard Classification Ratings (Scale 0-4) Health =1, Fire =0, Reactivity=0					

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<b>4. First Aid Measures</b>			
Routes of Exposure	First Aid Instructions	Immediate Medical Attention	Delayed Effects
Eye	Rinse opened eye for several minutes under running water. If symptoms persist consult physician	N. A.	N. A.
Skin	Immediately wash with soap and water and rinse thoroughly	N. A.	N. A.
Inhalation	Supply fresh air	N. A.	
Ingestion	If symptoms persist consult physician	N. A.	N. A.
Other	N. A.	N. A.	N. A.
Note to Physicians (Treating, Testing and Monitoring) N. A.			

<b>5. Fire and Explosion Data</b>			
Flashpoint Method: N. A.	Flammable (Explosive) Limits in Air LEL: N. A. UEL: N. A.	Autoignition Temperature: N. A.	Other: N. A.
Flame Propagation or Burning Rate (for Solids) N. A.	Properties Contributing to Fire Intensity N. A.	Flammability Classification N. A.	
Extinguishing Media: CO <sub>2</sub> , extinguishing powder, foam carbon dioxide or water spray. Fight larger fires with water spray or alcohol resistant foam.		Extinguishing Media to Avoid: Water with full jet.	
Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.			
Unusual Fire and Explosion Hazards: Formation of toxic, irritating gases is possible from the decomposition of the dimethacrylate resins.			

<b>6. Accidental Release Measures</b>
Containment Techniques: Material is a paste and as such will not flow.
Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and scoop up bulk material and place in a labeled plastic or metal container.  Avoid gross skin contact to minimize the possibility of contact dermatitis to susceptible persons. Ensure adequate ventilation.
Evacuation Procedures: N. A.
Special Instructions: N. A.
Reporting Requirements: N. A.

<b>7. Handling and Storage</b>
Handling Practices and Warnings: Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals.
Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Protect from exposure to direct light. Store away from food and beverages.

<b>8. Exposure Control / Personal Protection</b>		
Ventilation: None required during normal intended use of this product		Other Engineering Controls: N. A.
Routes of Entry	Personal Protective Equipment (PPE) for Normal Use	PPE for Emergencies
Eye/Face	Safety Glasses	N. A.
Skin	The glove material has to be impermeable and resistant to the product.	N. A.
Inhalation	Not Required	N. A.
Body Protection	Protective work clothing	N. A.
General Hygiene Considerations and Work Practices: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at end of work. Avoid contact with the eyes and skin.		
Protective Measures During Repair and Maintenance of Contaminated Equipment: N. A.		
Other Protective Measures and Equipment: N. A.		

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**9. Physical and Chemical Characteristics**

Appearance: Various shades of viscous paste.		Odor: Characteristic sweet acrylic ester odor.
Normal Physical State: Very High Viscosity Liquid		Melting Point: N. A.
Specific Gravity: 2.1 g/cm <sup>3</sup>	Solubility in Water: Not soluble	pH: N. A.
Vapor Pressure (mm Hg): N. A.	Vapor Density (AIR=1) N. A.	Evaporation Rate (Butyl Acetate =1) N. A.
Other: N. A.		

**10. Stability and Reactivity Data**

Incompatibility (Materials to Avoid): Strong Oxidizing materials.	
Hazardous Products Produced During Decomposition: No dangerous decomposition products known.	
Hazardous Polymerization: <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> May Not Occur	Conditions to Avoid: None known
Stability? <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions to Avoid: None known

**11. Toxicological Information**

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data: Product is an irritant to the skin and mucous membranes. The unpolymerized product may be an irritant to the skin in susceptible persons. On the eye the product has an irritating effect. Sensitization: Repeated or prolonged contact with the unpolymerized material may cause sensitization for persons allergic to acrylates and methacrylates. This product shows the following dangers according to internally approved calculation methods for composite materials: Irritant.

**12. Ecological Information**

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class I (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water streams or sewage system.

**13. Disposal Considerations**

Regulations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations  
 Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

**14. Transport Information**

Regulated for Shipping: No	Proper Shipping Name: N. A.	Packing Group: N. A.
Do Changes in Quantities, packaging, or shipment method change product classification? No	Hazard Class N. A.	Identification Number: N. A.
Other: N. A.		

**15. Regulatory Information**

Federal Regulations: The product has been classified and marked in accordance with directives on hazardous materials. Hazard Symbol: Irritant  
 Water Hazard class I (Self-assessment): slightly hazardous for water.  
 International Regulations: N. A.  
 Other: N. A.

**16. Other Information**

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex. All components are synthetically produced; none are derived from animal products.