



# Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Document Number: SDS 023.001  
Date Revised: 8/21/2019

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product Identifier:**

<b>Trade Name (as labeled):</b>	<b>Temporary Crown and Bridge Material</b>
<b>Product Form:</b>	<b>Mixture</b>
<b>Part/Item Number:</b>	<b>Base: 113-xx00 (xx denotes shade variances)</b>
	<b>Catalyst: 113-0700</b>

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:**

<b>Recommended Use:</b>	<b>Restorative</b>
<b>Restrictions on Use:</b>	<b>For Professional Use Only</b>

**1.3 Details of the Supplier of the Safety Data Sheet:**

<b>Manufacturer/Supplier Name:</b>	<b>Dental Technologies, Inc.</b>
<b>Manufacturer/Supplier Address:</b>	<b>6901 N. Hamlin Avenue Lincolnwood, IL 60712</b>
<b>Manufacturer/Supplier Telephone Number: Information)</b>	<b>800-835-0885 or 847-677-5500 (Product</b>
<b>Email address:</b>	<b><a href="mailto:info@dentaltech.com">info@dentaltech.com</a></b>

**1.4 Emergency Telephone Number:**

<b>Emergency Contact Telephone Number:</b>	<b>Chemtrec</b>
	<b>800-424-9300 (USA)</b>
	<b>001-703-527-3887 (Outside USA)</b>

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the Substance or Mixture:**

The product as manufactured is a solid composed of encapsulated chemical ingredients. No hazardous exposures are anticipated during normal product handling and use conditions.

<b>GHS Classification:</b>		
<b>Health</b>	<b>Environmental</b>	<b>Physical</b>
Skin Irritation, Category 2, H315 Eye Irritation, Category 2B, H319 Skin Sensitization, Category 1, H317 STOT (Single Exposure): Respiratory Tract, Category 3, H335	Not hazardous	Not hazardous

## 2.2 Label Elements:

Hazard pictograms (GHS-US)



GHS07

**Signal Word:** Warning

Hazard Phrases	Precautionary Phrases
H315 – Causes skin irritation H317 – May cause an allergic skin reaction H319 – Causes serious eye irritation H335 – May cause respiratory irritation	P261 – Avoid breathing dust/fume/gas/mist/vapors/spray. P264 – Wash skin thoroughly after handling. P271 – Use only outdoors or in a well-ventilated area. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 – IF ON SKIN: Gently wash with plenty of soap and water. P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position 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. P312 – Call a POISON CENTER or doctor/physician if you feel unwell. P321 – See section 4 for specific treatment. P332+P313 – IF SKIN irritation occurs: Get medical advice/attention. P333+P313 – IF SKIN irritation or rash occurs: Get medical advice/attention. P337+P313 – If eye irritation persists: Get medical advice/attention. P362 – Take off contaminated clothing and wash before reuse. P363 – Wash contaminated clothing before reuse. P403+P233 – Store in a well-ventilated place. Keep container tightly closed. P405 – Store locked up. P501 – Dispose of contents/container in accordance with local and national regulations.

**2.3 Other Hazards:** None known.

**2.4 Unknown acute toxicity (GHS-US):** No data available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Base:**

**3.1 Substances:** None.

**3.2 Mixture:**

Hazardous Components	C.A.S. #	Classification	WT %
Ethoxylated Bisphenol A Dimethacrylate	41637-38-1	Skin Irritation, Category 2, H315 Eye Irritation, Category 2B, H319 Skin Sensitization, Category 1, H317 Specific Target Organ Toxicity (Single Exposure): Respiratory Tract, Category 3, H335	25-50%

Barium Glass	N/A	Not Classified.	25-50%
Diurethane Dimethacrylate	72869-86-4	Skin Sensitization, Category 1A, H317 Acute Aquatic Toxicity, Category 3, H402 Chronic Aquatic Toxicity, Category 3, H412	1-10%
Triethylene Glycol Dimethacrylate	109-16-0	Skin Sensitization, Category 1, H317	1-10%
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	Not Classified.	1-10%
Silicon Dioxide	N/A	Not Classified.	1-10%
2-Propenoic acid, 1,6-hexanediyl Ester	13048-33-4	Skin Irritation Category 2, H315 Eye Irritation Category 2A, H319 Skin Sensitization Category 1, H317 Chronic Aquatic Toxicity Category 3, H412	1-10%

The exact concentration is being withheld as a trade secret.

**Catalyst:**

**3.1 Substances:** None.

**3.2 Mixture:**

Hazardous Components	C.A.S. #	Classification	WT %
Triethylene Glycol Dimethacrylate	109-16-0	Skin Sensitization, Category 1, H317	50-75%
Crystalline Silica in the form of Quartz	14808-60-7	Carcinogen Category 1A, H350 Specific target organ toxicity (repeated exposure) Category 1, H372	25-50%
Benzoyl Peroxide	94-36-0	Org. Perox. Category B, H241 Eye Irritation Category 2A, H319 Skin Sensitization Category 1, H317 Acute Aquatic Toxicity Category 1, H402 Chronic Aquatic Toxicity Category 1, H412	1-10%
Aerosil	68611-44-9	Not Classified.	1-10%
Silicon Dioxide	N/A	Not Classified.	1-10%

The exact concentration is being withheld as a trade secret.

Refer to Section 16 for the full text of the GHS and EU Classifications.

## 4. FIRST AID MEASURES

4.1 Description of First Aid Measures:	
<b>Eye</b>	Immediately flush victim's eyes with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.
<b>Skin</b>	Remove contaminated clothing. Wash skin with soap and water. If irritation develops, get medical attention. Launder clothing before re-use.
<b>Inhalation</b>	Remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration and get immediate medical attention.
<b>Ingestion</b>	Rinse out mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

**4.2 Most Important Symptoms and Effects, Both Acute and Delayed:**

Not expected to present a significant hazard under anticipated conditions of normal use. May cause eye and skin irritation. May cause skin sensitization. May be harmful if swallowed.

**4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:**

Immediate medical attention should not be required except in cases of high quantities of ingestion or inhalation.

**Note to Physicians (Treatment, Testing, and Monitoring):** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**5.1 Extinguishing Media:**

Water, Chemical Foam, Carbon Dioxide, or Dry Chemical

**5.2 Special Hazards Arising from the Substance or Mixture:**

Heat can cause polymerization with rapid release of energy.





**5.3 Advice for Fire-Fighters:****Fire Fighting Procedures:**

Cool fire exposed containers with water spray. General: Evacuate all personnel; use protective equipment for fire-fighting.

**Precautions for Fire Fighters:**

Firefighters should wear full emergency equipment and approved positive pressure self-containing breathing apparatus.

### Recommended Protective Equipment for Fire Fighters:



EYES/FACE	HANDS	RESPIRATORY	THERMAL
			

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:**

Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Avoid contact with skin, eyes, or clothing. Wear appropriate protective clothing as described in Section 8.

### Recommended Personal Protective Equipment for Containment and Clean-up:

EYES/FACE	HANDS	RESPIRATORY	SKIN
			

**6.2 Environmental Precautions:**

Prevent entry into sewers and waterways. Report releases as required by local, state, and national authorities. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors. Wear appropriate clothing as described in Section 8.

### 6.3 Methods and Material for Containment and Cleaning up:

Clean up with absorbent material and remove residue with alcohol damp wipe. Rinse spill area with water. Use non-sparking tools and equipment.

### 6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal Information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling:

Wash thoroughly after handling. Provide appropriate ventilation. For precautions see section 2.2.

### 7.2 Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, well-ventilated area away from heat, direct sunlight, and all sources of ignition. Store away from incompatible materials. Keep container closed to prevent contamination.

**7.3 Specific End Use (s):** No specific end use other than that described in Section 1.2.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control Parameters:** No additional information available.

### 8.2 Exposure Controls:

**Appropriate Engineering Controls:** None required under normal product handling conditions.

#### Individual Protection Measures (PPE)



**Specific Eye/face Protection:** Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards.

**Specific Skin Protection:** Wear impervious gloves such as natural rubber or neoprene if needed to avoid skin contact. Consult glove supplier for thickness and breakthrough times.

**Specific Respiratory Protection:** None should be needed under normal use. If exposure limits are exceeded an approved respirator or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form, and concentration. Follow applicable regulations and good industrial hygiene practice.

**Specific Thermal Hazards:** None known.

#### Recommended Personal Protective Equipment

EYES/FACE	HANDS	RESPIRATORY	SKIN
			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties (Base/Catalyst):

<b>Physical state:</b>	Glossy, homogeneous paste/ Homogeneous paste	<b>Relative density:</b>	No data available
<b>Appearance:</b>	A1-B1/Glossy White	<b>Explosive limits:</b>	No data available
<b>Odor:</b>	No data available	<b>Vapor pressure (mmHg):</b>	No data available
<b>Odor threshold:</b>	No data available	<b>Vapor density:</b>	No data available
<b>pH:</b>	No data available	<b>Solubility(ies):</b>	No data available
<b>Melting/freezing point:</b>	No data available	<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Initial boiling point and boiling range:</b>	No data available	<b>Auto-ignition temperature:</b>	No data available
<b>Flash point:</b>	No data available	<b>Decomposition temperature:</b>	No data available
<b>Evaporation rate:</b>	No data available	<b>Viscosity:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available	<b>Oxidizing Properties:</b>	No data available
<b>Explosive Properties:</b>	No data available		

**9.2 Other Information:** None.

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** Stable at ambient temperature and under normal conditions of use.

**10.2 Chemical Stability:** Stable under recommended storage conditions.

**10.3 Possibility of Hazardous Reactions:** None known.

**10.4 Conditions to Avoid:** Keep away from light, heat, sparks, flames, and other sources of ignition.

**10.5 Incompatible materials:** Keep away from light, reducing agents, oxidizing agents, peroxides, amines and open flames.

**10.6 Hazardous Decomposition Products:** Oxides of Carbon when burned.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects:

Poly(oxy-1,2-ethanediy),.alpha.,.alpha.'-[1-methylethylidene) di-4,1-phenylene]  
bis[.omega.-[(2-methyl - 1-oxo-2-propenyl)]]-:

Acute Toxicity:	
Oral – Rat – LD50	> 2,000 mg/kg
Dermal – Rat – LD50	> 2,000 mg/kg

**Diurethane Dimethacrylate**

Acute Oral Toxicity LD50 – Rat	> 2,000 mg/kg
Caustic burning/irritation of skin – rabbit – 4h	Not irritating
Serious eye damage/eye irritation – rabbit	Not irritating
Respiratory/skin sensitization	Sensitizing

**Triethylene Glycol Dimethacrylate:**

Acute Toxicity:	
Oral – Mouse – LD50	10,750 mg/kg
Oral – Rat – LD50	10,837 mg/kg
Carcinogenicity:	Triethylene Glycol Dimethacrylate may contain trace quantities of substances known to the state of California to cause cancer and/or reproductive toxicity.

**Silicon dioxide:**

Acute oral toxicity – Rat – LD50	> 5,000 mg/kg
Acute inhalation toxicity – Rat – LC0 – 4h	0.477 mg/L

**2-Propenoic acid, 1,6-hexanediyl ester:**

Acute oral toxicity – Rat – LD50	> 5,000 mg/kg, practically nontoxic
Acute dermal toxicity	3,656 mg/kg
Acute inhalation toxicity – Rat – 7h	> 0.41 mg/L (vapor, no deaths occurred)
Skin irritation - Rabbit	Causes skin irritation; irritation index: 4.67/8 (4h)
Eye irritation - Rabbit	Causes serious eye irritation
Skin Sensitization – Guinea pig	May cause an allergic skin reaction. Skin allergy was observed. (Strong sensitizer)
Repeated dose toxicity	Repeated oral administration to rat. Affected organ(s): liver, stomach. Signs: changes in organ structure or function, changes in organ weights, clinical chemistry changes, reduced body weight.

**Benzoyl Peroxide:**

Acute Toxicity	
Oral – Rat – LD50	> 5,000 mg/kg
Inhalation – Rat – LD50 – 4h	24.3 mg/L
Germ cell mutagenicity	Laboratory experiments have shown mutagenic effects.
Respiratory or skin sensitization - mouse	May cause sensitization by skin contact.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity:**

**Poly(oxy-1,2-ethanediyl),.alpha.,.alpha.' –[1-methylethylidene) di-4,1-phenylene]**

**bis[.omega.-[(2-methyl – 1-oxo-2-propenyl)]-:**

Fish – LD50 – 96h > 100mg/L

Daphnia magna – EC50 – 48h > 100 mg/L

Algae – EC50 – 72h > 100 mg/L

**Diurethane Dimethacrylate:**

Acute aquatic toxicity category 3 (UN-GHS)

Chronic aquatic toxicity category 3 (UN-GHS)

LC50 Brachydanio rerio – 96h > 100 mg/L

**Silicon Dioxide:**

LC50 – Brachydanio rerio – 96h: > 10,000 mg/L

EC50 – Daphnia magna – 24h: >10,000 mg/L

IC50 – Desmodesmus subspicatus – 72h: > 10,000 mg/L

**2-Propenoic acid, 1,6-hexanediyl ester:**

Static test LC50 – Leuciscus idus – 96h: 4.6-10 mg/L

Static test EC50 – Daphnia magna – 48h: 2.6 mg/L

Static test EC50 – Desmodesmus subspicatus – 72h: 1.5 mg/L

Respiration inhibition EC50 – sludge treatment – 30 min: ca. 270 mg/L

**Benzoyl Peroxide:**

Oncorhynchus mykiss – semi-static test – LC50 – 96h: 0.0602 mg/L

Daphnia magna – immobilization – EC50 – 48h: 0.11 mg/L

Pseudokirchneriella subcapitata – growth inhibition – EC50 – 72h: 0.0711 mg/L

Activated sludge – respiration inhibition – EC50 – 30min: 35 mg/L

**12.2 Persistence and Degradability:** No data available.**12.3 Bio-accumulative Potential:** No data available.**12.4 Mobility in Soil:** No data available.**12.5 Results of PBT and vPvB Assessment:** No data available.**12.6 Other Adverse Effects:** No data available.**13. DISPOSAL CONSIDERATIONS****13.1 Waste Treatment Methods:****Regulations:** Dispose in accordance with all national and local regulations.**Properties (Physical/Chemical) Affecting Disposal:** None currently known.**Waste Treatment Recommendations:** Unpolymerized (uncured) material may be hazardous waste. Incinerate uncured material and dispose in accordance with local regulations.**14. TRANSPORT INFORMATION****14.1. UN number**

N/A

**14.2. UN proper shipping name**

N/A

**14.3. Transport hazard class(es)**

N/A

**14.4. Packing group**

N/A

**14.5. Environmental hazards**

No data available

**14.6. Special precautions for user**

No data available

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No data available



## 15. REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

#### U.S. Federal Regulations

Poly(oxy-1,2-ethanediyl),.alpha.,.alpha.'-[1-methylethylidene] di-4,1-phenylene] bis[.omega.-(2-methyl - 1-oxo-2-propenyl)]-:

TSCA	Listed
DSL	Listed
NDSL	Not Listed
EINECS	Listed
SARA 311/312 Hazard Categories	None
SARA 313 Components	None

Diurethane Dimethacrylate:

REACH	Pre-registered
TSCA	Listed or exempted
DSL	Not listed
AICS	Listed or exempted
ECL	Listed or exempted
IECSC	Listed or exempted
HSNO	Listed or exempted
SARA 302 Components	None
SARA 313 Components	None
SARA 311/312 Hazards	None
Pennsylvania Right to Know Components	Diurethane Dimethacrylate (Cas No. 72869-86-4)

Triethylene Glycol Dimethacrylate:

OSHA	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
TSCA	Listed
DSL/NDSL	Listed
EINECS	Listed
SARA Section 302	There may be specific Threshold Planning Quantities for the components of this product.
SARA 311/312 Hazard Categories	Immediate (Acute) Health
SARA 313 Components	None
WHMIS Hazard Class	This product has been classified according to the hazard criteria of the CPR and MSDS contains all of the Information required by the CPR. None of the Components of this product are listed on the Priorities Substances List.

2-Propenoic acid, 1,6-hexanediyl ester:

SARA 311/312 Hazards	Acute health hazard, Reactivity hazard
Pennsylvania Right to Know Components	2-Propenoic acid, 1,6-hexanediyl ester CAS 13048-33-4
New Jersey Right to Know Components	2-Propenoic acid, 1,6-hexanediyl ester CAS 13048-33-4

Benzoyl Peroxide:

SARA Section 313 Components	Benzoyl Peroxide CAS 94-36-0
SARA 311/312 Hazards	Reactivity hazard, acute health hazard
Massachusetts State Right to Know Regulations	Benzoyl Peroxide CAS 94-36-0
Pennsylvania State Right to Know Regulations	Benzoyl Peroxide CAS 94-36-0
New Jersey State Right to Know Regulations	Benzoyl Peroxide CAS 94-36-0

**15.2 Chemical Safety Assessment:** None required.

## 16. OTHER INFORMATION

HMIS Hazard Rating:

Health: 1	Flammability: 1	Reactivity: 1
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Full text of Classification abbreviations used in Section 2 and 3:

H241	Heating may cause a fire or explosion
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Supersedes: MSDS-023 Rev000

Date updated: 8/21/2019

Change Control Document #: DCN 6935

Revision Summary: August 21<sup>st</sup>, 2019 : Converted MSDS to Reach SDS. Updated all sections.

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.

Manufacturer disclaimer:

FOR DENTAL USE ONLY. The information and recommendations are taken from sources (raw material MSDS(s), SDS(s) and manufacturers 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.