



**DENTAL
TECHNOLOGIES**

Safety Data Sheet

Safety Data Sheet (in compliance with 29 CFR Part 1200 and 29 CFR Part 1020)

Document Number: SDS 006.005

Date Revised: 03/01/24

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

1.1 Product Identifier:

Trade Name (as labeled): Alpha Dent® Self Cure Composite Base and Catalyst
Product Form: Mixture
Part/Item Number: 110-0100 and 110-0200

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

Recommended Use: Composites
Restrictions on Use: Professional Use Only

1.3 Details of the Supplier of the Safety Data Sheet:

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

1.4 Emergency Telephone Number:

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

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.

GHS Classification:		
Health	Environmental	Physical
Skin Irritant 2 (H315) Skin Sensitizer 1B (H317) Eye Irritant 2B (H319)	Not Hazardous	Not Hazardous

2.2 Label Elements:

Hazard pictograms (GHS-US)



GHS07



GHS08

Signal Word: Warning

Hazard Phrases	Precautionary Phrases
H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation.	P264 – Wash hands and skin thoroughly after handling. 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: wash with plenty of soap and water. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 – Immediately call a POISON CENTER or doctor/physician. 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. P362 – Take off contaminated clothing and wash before reuse. P363 – Wash contaminated clothing before reuse. P405 – Store locked up. P501 – Dispose of contents/containers 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 %
Silicon Dioxide	14808-60-7	Carcinogen, Category 1A, H350i Specific Target Organ Toxicity (Repeated Exposure), Category ,1 H372	10-25%
2-Propenoic acid, 2-methyl-, (1-methylethylidene) bis [4,1-phenyleneoxy (2-hydroxy-3,1-propanediyl)] ester	1565-94-2	Skin irritation, Category 3, H315 Eye irritation, Category 2B, H319	1-10%
Poly(oxy-1,2-ethanediyl),.alpha.,.alpha.'-[1-methylethylidene) di-4,1-phenylene] bis[.omega.-[(2-methyl – 1-oxo-2-propenyl)]-	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	1-10%

1,6-Hexanediol Dimethacrylate	6606-59-3	Skin irritation, Category 2, H315 Eye irritation, Category 2B, H319 Specific target organ toxicity (Single Exposure) Respiratory Tract, Category 3, H335	1-10%
Triethylene Glycol Dimethacrylate	109-16-0	Skin Irritant, Category 2, H315 Skin Sensitization, Category 1, H317 Eye Irritant, Category 2B, H319	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 %
Silicon Dioxide	14808-60-7	Carcinogen, Category 1A, H350i Specific Target Organ Toxicity (Repeated Exposure), Category 1, H372	50-75%
2-Propenoic acid, 2-methyl-, (1-methylethylidene) bis [4,1-phenyleneoxy (2-hydroxy-3,1-propanediyl)] ester	1565-94-2	Skin irritation, Category 3, H315 Eye irritation, Category 2B, H319	10-25%
Triethylene Glycol Dimethacrylate	109-16-0	Skin Irritant, Category 2, H315 Skin Sensitization, Category 1, H317 Eye Irritant, Category 2B, H319	1-10%
Aluminum oxide	1344-28-1	Not Classified.	1-10%
Synthetic Amorphous Silica	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 Classifications.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye	Immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water. Consult a physician.
Inhalation	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.
Ingestion	Rinse out mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or drowsy person. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

No data available.

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: General: Evacuate all personnel; use protective equipment for fire-fighting.

Precautions for Fire Fighters: Self contained breathing apparatus if toxic fumes are generated.

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. 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:

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

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

7.2 Conditions for Safe Storage, Including Any Incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific End Use (s): Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Specific Respiratory Protection: Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protections, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government.

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):

Physical state:	Paste/Paste	Relative density:	No data available.
Appearance:	Natural/White	Explosive limits:	No data available.

Odor:	No data available.	Vapor pressure (mmHg):	No data available.
Odor threshold:	No data available.	Vapor density:	No data available.
pH:	No data available.	Solubility(ies):	No data available.
Melting/freezing point:	No data available.	Partition coefficient: n-octanol/water:	No data available.
Initial boiling point and boiling range:	No data available.	Auto-ignition temperature:	No data available.
Flash point:	No data available.	Decomposition temperature:	No data available.
Evaporation rate:	No data available.	Viscosity:	No data available.
Flammability (solid, gas):	No data available.	Oxidizing Properties:	No data available.
Explosive Properties:	No data available.		

9.2 Other Information:

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 heat, sparks, incompatible materials, flames, and other sources of ignition.
10.5 Incompatible materials: High temperatures, strong oxidizing agents, bases. Keep away from sunlight and open flames.
10.6 Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions – Carbon oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes:

a. Acute Toxicity	See below.
b. Skin corrosion/irritation	Data available to make classification
c. Serious eye damage/ irritation	Data available to make classification
d. Respiratory or skin sensitization	Data either not available or does not fill the criteria for classification
e. Germ cell mutagenicity	Data either not available or does not fill the criteria for classification
f. Carcinogenicity	Data either not available or does not fill the criteria for classification
g. Reproductive toxicity	Data either not available or does not fill the criteria for classification
h. STOT-single exposure	Data either not available or does not fill the criteria for classification
i. STOT-repeated exposure	Data either not available or does not fill the criteria for classification
j. Aspiration hazard	Data either not available or does not fill the criteria for classification

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

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

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

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.

Silane, dichlorodimethyl-, reaction products with silica:

Acute Toxicity:	
Oral – Rat – LD50	> 5,000 mg/kg

Aluminum Oxide:

Acute Toxicity:	
Oral – Rat – LD50	> 5,000 mg/kg

11.2 Information on other hazards:

None.

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: > 100mg/L

Silane, dichlorodimethyl-, reaction products with silica:

Fish – LC50 – 96h: > 10,000 mg/L

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

Algae – IC50 – 72h: > 10,000 mg/L

Aluminum Oxide:

Fish – LC50 – 96h: > 100mg/L

Daphnia magna – EC50 – 48h: > 100 mg/L

Algae – EC50 – 72h: > 100 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 Endocrine disrupting properties: No data available

12.7 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

Not Applicable

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

Not Applicable

14.6. Special precautions for user

Not Applicable

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

Not Applicable

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

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 the MSDS contains all of the information required by the CPR. None of the components of this product are listed on the Priorities

	Substances List.
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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

1,6-Hexanediol Dimethacrylate:

TSCA	Listed
DSL	Not Listed
NDSL	Listed
EINECS	Listed
SARA 311/312 Hazard Categories	Acute health hazard, Reactive hazard
SARA 313 Components	None

15.2 Chemical Safety Assessment: None required.

16. OTHER INFORMATION

HMIS Hazard Rating:

Health: 1	Flammability: 0	Reactivity: 1
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Full text of Classification abbreviations used in Section 2 and 3:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.

Supersedes: May 22, 2023

Date updated: March 1, 2024

Change Control Document #: DCN 8949, 9306

Revision Summary: May 22, 2023: Updated to Commission Regulation (EU) 2020/878. March 1, 2024: Updated to revised GF-404 Rev001 Template. Revised Section 3 to remove non-hazardous components.

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.