

**MATERIAL SAFETY DATA SHEET: *DenTASTIC A, B, C*
and *DenTASTIC Part 1 & Part 2***

IDENTITY: Trade Name: DenTASTIC DENTAL ADHESIVE
Code: DAS, DAS-C1, DASP-A, DASP-B, DASP-C

Chemical Description:

Part A: Mg NTG-GMA in acetone base (magnesium salt of the reaction product of N-toluene glycine and glycidil methacrylate) and inhibitors.

Part B: PMGDM in acetone base (the reaction product of pyromellitic dianhydride with glycerol dimethacrylate), di- and tri-functional monomers and activators.

Part C: Activators, mono- and di-functional monomers and oligomers in acetone base.

Product Use: Dental adhesive system

SECTION I

Pulpdent Corporation

80 Oakland Street

Watertown, MA 02472 USA

Date Prepared: September 1, 2008

Phone Numbers:

24 Hour Emergency: 1-800-535-5053

Customer Service: 1-800-343-4342/1-617-926-6666

SECTION II - HAZARDOUS INGREDIENTS

<i>Ingredients</i>	<i>CAS RN</i>	<i>PEL/TLV</i>	<i>UN Number</i>
Mg NTG GMA	83418-59-1	Not established	----
PMGDM	148019-46-9	Not established	----
Acetone	67-64-1	TWA: 750 ppm / STEL: 1000 ppm	UN 1090

DOT HAZARD CLASSIFICATION: Class 3, PG II, Flammable Liquid

WHMIS CLASSIFICATION: B-2, Flammable Liquid / D-2, Possible Irritant or Sensitizer

NFPA HMIS RATING: HEALTH: 1 FLAMMABILITY: 3 REACTIVITY: 2

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 56.5°C Specific Gravity: 0.788 Vapor Pressure: 180 mm Hg

Melting Point: -94°C Vapor Density: 2.0 Evaporation Rate: 6

Solubility in water: Very soluble Odor Threshold: 20 ppm

Odor: Characteristic, sweet mint-like acetone odor

Appearance: Part A: Pale yellow to amber thin liquid; Part B: Yellow liquid; Part C: Amber colored thin liquid;

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: - 18°C Flammable limits: LEL 2.5% UEL 12.8%

Extinguishing Media: Use dry chemical, CO₂, alcohol resistant foam, water spray.

Special Fire Fighting Procedures: Use water to keep fire exposed containers cool. Firefighters should wear self-contained breathing apparatus in the positive pressure mode with a full face piece, when there is the possibility of exposure to smoke, fumes, or hazardous decomposition products.

Hazardous Combustion Products / Unusual Fire and Explosion Hazards: Heat, aging or contamination can lead to explosive polymerization.

SECTION V - REACTIVITY DATA

Stability: Stable under normal conditions of use and storage.

Conditions to avoid: Heat, sparks and flame, ungrounded metal containers, contamination. Use promptly.

Incompatibility: Acids, bases, amines, bromines, chloroform, hydrogen peroxide, strong oxidizers, plastics, rayon, ketones and acetaldehyde.

Hazardous Decomposition Products: Thermal decomposition may produce toxic oxides of carbon.

Hazardous Polymerization: Possible

Conditions to avoid: Heat, sparks and flame, contamination, storage for prolonged periods.

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SECTION VI - HEALTH HAZARD DATA

Summary of Acute Hazards: Minimal health hazard under normal conditions of use and storage and in the quantities present in this product. May be irritating to eyes, skin, or respiratory tract. In large quantities and with prolonged exposure, acetone presents a significant health hazard.

<i>Route of Exposure</i>	<i>Signs & Symptoms</i>
Inhalation	May irritate nose, throat. Headache/fatigue with prolonged/repeated exposure.
Eye Contact	May irritate eyes.
Skin Absorption	Slightly toxic.
Skin Contact	May cause dry or red skin or allergic reaction.
Ingestion	Harmful if swallowed; nervous system depressant. LD ₅₀ (rat): 10.7 ml/kg

Summary of Chronic Hazards: Prolonged exposure to acetone, over TLV, may cause mucous membrane irritation, fatigue, weakness, headache, hematological and central nervous system changes, conjunctivitis. Methacrylates may cause sensitization in susceptible individuals.

Carcinogenicity	Not known to be a carcinogen.
Teratogenicity	None known
Mutagenicity	None known
Reproductive Toxicity	None known
Special Health Effects	Persons with chronic respiratory or skin disease are at increased risk with prolonged exposure to acetone.

Emergency First Aid Procedures:

Inhalation	Move to fresh air. Give oxygen; get medical care for difficult breathing.
Eye contact	Flush the contaminated eye with flowing water for 15+ minutes. If irritation persists, obtain medical care.
Ingestion	For large quantities, dilute with water, but only if person is conscious. Give activated charcoal. Get emergency medical care.
Skin contact	Wash affected area thoroughly with mild soap and water. If irritation develops or persists, seek medical advice.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING & USE

Handling and Storage Precautions: Store tightly capped in original container at cool room temperature. Avoid cross-contamination between parts. Avoid heat, sparks, flames moisture and incompatible materials. Ground metal containers. Empty containers may retain residual product and should be handled appropriately.

Steps to Be Taken if Material is Released or Spilled: For small quantities, as in this product: Wear gloves and splash goggles. Absorb spill with inert material, such as paper towels. Place all absorbent material in closed container away from heat, sparks, and flame. Wash area of spill with soap and water.

Waste Disposal Method: Follow all government regulations. Keep spills out of sewers, open bodies of water.

Other Precautions: Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Wash hands after use.

SECTION VIII - CONTROL MEASURES

Respiratory Protection: Surgical mask is usually adequate. For exposure >TLV, use a NIOSH-approved respirator.

Ventilation: No special ventilation is usually required. Large quantities of acetone require local exhaust.

Protective Gloves: Recommended.

Eye Protection: Safety glasses or splash goggles are recommended.

Other Protective Clothing or Equipment: Emergency eye wash fountain. Dental staff should wear lab coats.

Work/Hygienic Practices: Wash hands after use.

The information presented herein is believed to be factual as it has been derived from the works of persons believed to be qualified experts. However, nothing contained in this information is to be taken as a warranty or representation for which Pulpdent Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

**MATERIAL SAFETY DATA SHEET: *DenTASTIC A, B, C*
and *DenTASTIC Part 1 & Part 2***

IDENTITY

Trade Name: DenTASTIC Unfilled Resin Bonding Agent, Part 1 and Part 2
Codes: DASP-1, DASP-2
Chemical Description: Mono- and difunctional monomers and oligomers in resin base.
Product Use: Dental bonding agent in two parts

SECTION I

Pulpdent Corporation Phone Numbers:
80 Oakland Street 24 Hour Emergency: 1-800-535-5053
Watertown, MA 02472 USA Customer Service: 1-800-343-4342 / 1-617-926-6666
Date prepared: February 1, 2009

SECTION II - HAZARDOUS INGREDIENTS

<i>Ingredients</i>	<i>PEL / TLV</i>
Uncured methacrylate resin mixture	Not established
DOT HAZARD CLASSIFICATION:	Not regulated
WHMIS CLASSIFICATION:	D-2, possible irritant or sensitizer
NFPA HMIS RATING: HEALTH: 1	FLAMMABILITY: 0 REACTIVITY: 1

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Specific Gravity: 1.10 Vapor Pressure: < 1 mm Hg
Solubility in water: Not significant Odor Threshold: No data available
Appearance: Part 1 (base): Yellow, oily liquid; Part 2 (catalyst): Slightly yellow, oily liquid
Odor: Part 1 and Part 2: Mild, characteristic, resin odor.

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: Not flammable Flammable Limits: not applicable
Extinguishing Media: Use water spray to keep fire-exposed containers cool. Extinguish fire with agent suitable for surrounding fire; carbon dioxide, dry chemical.
Unusual Fire and Explosion Hazards / Hazardous Combustion Products: Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide and oxides of nitrogen and silicone.
Special Fire Fighting Procedures: Wear protective clothing; use positive pressure self-contained breathing apparatus.

SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to avoid: High temperatures, direct sunlight.
Incompatibility: None
Hazardous Decomposition Products: Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide and oxides of nitrogen and silicone.
Hazardous Polymerization: Will not occur in the quantities present in this product.
Conditions to avoid: High temperatures, direct sunlight, cross contamination.

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SECTION VI - HEALTH HAZARD DATA

Summary of Acute Hazards: Minimal health hazard.

<i>Route of Exposure</i>	<i>Signs and Symptoms</i>
Inhalation	None
Eye contact	May cause irritation.
Skin Absorption	None expected.
Skin Contact	May cause irritation.
Ingestion	None in the quantities present in this product.

Summary of Chronic Hazards: May be a sensitizer with prolonged or repeated contact.

Carcinogenicity:	Not known to be a carcinogen
Teratogenicity:	None known
Mutagenicity:	None known
Reproductive Toxicity:	None known
Special Health Effects:	None known

Emergency First Aid Procedures

Inhalation	Not applicable
Eye Contact	Flush with running water for 15+ minutes. See physician.
Ingestion	If large quantities are swallowed, consult a physician.
Skin Contact	Remove with alcohol or orange solvent. Wash skin with water and soap.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storage Precautions: Keep tightly closed in original container. Store in a cool, dry, well-ventilated place away from extremes of temperature and direct sunlight. Avoid cross contamination.

Release or Spill: Wear gloves and goggles. Absorb with inert material, such as paper towels, and transfer to covered container for disposal. Wash spill site with alcohol or orange solvent and then with detergent and water.

Waste Disposal Method: Follow all government regulations

SECTION VIII - CONTROL MEASURES

Respiratory Protection: None required. Under normal conditions of use of this product, the surgical masks usually worn by dental staff are adequate.

Ventilation: No special ventilation required under normal conditions of use of this product.

Protective gloves: No special requirements other than the usual surgical gloves worn by dental staff.

Eye protection: No special requirements other than the usual safety glasses worn by dental staff.

Other protective clothing or equipment: Emergency eye wash fountain.

Work/Hygienic Practices: Wash hands after use.

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