

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Information

1.1 Product Trade Name: CALIBRA[®] Esthetic Resin Cement–Base Paste
1.2 Part (Item) Number: 607058 – 607080 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 3/8/99 **Date Revised:** 2/19/02

SECTION II – Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Barium boron fluoroaluminosilicate glass	N. E.	N. E.	65997-18-4	> than 60 %
Bis-GMA resin	N. E.	N. E.	1565-94-2	< than 15 %
Polymerizable dimethacrylate resin	N. E.	N. E. 109-16-0	< than 10 %	
Polymerizable dimethacrylate resin	N. E.	N. E. 24448-20-2	< than 15 %	
Hydrophobic Amorphous Fumed Silica	3 mg/m ³	3 mg/m ³	67762-90-7	< than 5 %
Titanium Dioxide	10 mg/m ³	10 mg/m ³	13463-67-7	< than 5 %

Other Information: Other colorants are inorganic iron oxides.

SECTION III – Physical/Chemical Characteristics

3.1 Boiling point: N. A. **3.6 Specific Gravity:** Approximately 1.8 g/cm³
3.2 Vapor pressure: N. A. **3.7 Melting Point:** N. E.
3.3 Vapor density: N. A. **3.8 Evaporation rate:** N. A.
3.4 Solubility in water: Not Soluble
3.5 Appearance and odor: Creamy pastes with sweet acrylic ester odor. Multiple shades.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): N. A.
4.2 Flammability (explosive limits): LEL: N. A. UEL: N. A.
4.3 Extinguishing media: Water spray, carbon dioxide, foam, or dry chemical.
4.4 Special fire fighting procedures: Firefighters should wear full protective clothing including a self-contained breathing apparatus.
4.5 Unusual fire and explosion hazards: During a fire, irritating gas may be present from the decomposition of the dimethacrylate resins.

SECTION V – Reactivity Data

5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Bright visible lights on paste, elevated temperatures above 50°C (122°F).
5.3 Incompatibility (materials to avoid): Strong oxidizing materials and peroxides.
5.4 Hazardous decomposition or byproducts: Irritating gases, CO and CO₂
5.5 Hazardous polymerization: May occur: Will not occur: X
5.6 Conditions to avoid (polymerization): Elevated temperatures and oxidizing materials. Product is sensitive to visible light and will harden if exposed to visible light. Heat greater than 50°C.

SECTION VI - Health Hazard Data

- 6.1 Route(s) of entry:** **Inhalation?:** No **Skin?:** Yes **Ingestion?:** Possible
- 6.2 Health hazards (acute and chronic):** Avoid contact with eyes. May cause irritation. **Eyes:** Material can cause irritation. **Skin:** Material may be an irritant. Susceptible persons with known allergies to methacrylates and acrylates may develop allergic response. **Ingestion:** Material is probably not harmful if swallowed.
- 6.3 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.
- 6.4 Signs and symptoms of exposure:** Dermal redness or irritation. **Eye contact:** Irritation and possible corneal damage. **Skin contact:** Irritation or possible allergic response. Severe allergic response may result in breathing difficulties.
- 6.5 Medical conditions generally aggravated by exposure:** Open sores and wounds of the skin. Individuals with known sensitivity to methacrylates, acrylates.
- 6.6 Emergency first aid procedures:** **Eyes:** In case of eye contact, flush with flowing water for 15 minutes. Get prompt medical attention. **Skin:** Wash skin with soap and water. If irritation persists, call physician. **Ingestion:** If swallowed give 2 glasses of water to drink. See a physician.
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SECTION VII - Precautions for Safe Handling and Use

- 7.1 Steps to be taken in case material is released or spilled:** 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.
- 7.2 Waste disposal methods:** Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations.
- 7.3 Precautions to be taken in handling and storage:** Store in a dry area, away from direct sunlight. Maximum storage temperature is 50°C(122°F). Normal storage is at room temperature. Store away from food and beverages.
- 7.4 Other precautions:** Avoid contact with skin. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.
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SECTION VIII - Control Measures / Personal Protection

- 8.1 Respiratory protection:** None required during normal use of this product.
- 8.2 Ventilation:** None required during normal intended use of this product.
- 8.3 Protective gloves:** Latex or vinyl gloves.
- 8.4 Eye protection:** Protective goggles.
- 8.5 Other protective clothing or equipment:** Chemically resistant apron or other impervious clothing.
- 8.6 Work/Hygienic practices:** Observe normal care when working with chemicals. Avoid eye and skin contact, inhalation and ingestion. Do not eat, drink or smoke when using.

NFPA HAZARD CLASSIFICATIONS	
Health	0
Flammability	1
Reactivity	0
Specific Hazard	N. A.

NFPA – National Fire Protection Association

N.A. - Not Applicable

N.E. - Not Established

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Information

1.1 Product Trade Name: CALIBRA[®] Esthetic Resin Cement–Catalyst Paste
1.2 Part (Item) Number: 607058 – 607080 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 3/8/99 **Date Revised:** 2/19/02

SECTION II - Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Barium boron fluoroalumino silicate glass	N. E.	N. E.	65997-18-4	> than 60 %
Bis-GMA resin	N. E.	N. E.	1565-94-2	< than 15 %
Polymerizable dimethacrylate resin	N. E.	N. E. 109-16-0	< than 10 %	
Polymerizable dimethacrylate resin	N. E.	N. E. 24448-20-2	< than 15 %	
Hydrophobic Amorphous Fumed Silica	3 mg/m ³	3 mg/m ³	67762-90-7	< than 5 %
Titanium Dioxide	10 mg/m ³	10 mg/m ³	13463-67-7	< than 5 %
Benzoyl Peroxide	5 mg/m ³	5 mg/m ³	94-36-0	< than 2 %

SECTION III - Physical/Chemical Characteristics

3.1 Boiling point: N. A. **3.6 Specific Gravity:** Approximately 1.8 g/cm²
3.2 Vapor pressure: N. A. **3.7 Melting Point:** N. E.
3.3 Vapor density: N. A. **3.8 Evaporation rate:** N. A.
3.4 Solubility in water: Not Soluble
3.5 Appearance and odor: Creamy off white paste with sweet acrylic ester odor.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): N. A.
4.2 Flammability (explosive limits): LEL: N. A. UEL: N. A.
4.3 Extinguishing media: Water spray, carbon dioxide, foam, or dry chemical.
4.4 Special fire fighting procedures: Firefighters should wear full protective clothing including a self contain breathing apparatus.
4.5 Unusual fire and explosion hazards: During a fire, irritating gas may be present from the decomposition of the dimethacrylate resins.

SECTION V – Reactivity Data

5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Elevated temperatures above 50°C (122°F).
5.3 Incompatibility (materials to avoid): Amines
5.4 Hazardous decomposition or byproducts: Irritating gases, CO and CO₂
5.5 Hazardous polymerization: May occur: Will not occur: X
5.6 Conditions to avoid (polymerization): Elevated temperatures and amines. Heat greater than 50°C.

SECTION VI - Health Hazard Data

- 6.1 Route(s) of entry:** **Inhalation?:** No **Skin?:** Yes **Ingestion?:** Possible
- 6.2 Health hazards (acute and chronic):** Avoid contact with eyes. May cause irritation. **Eyes:** Material can cause irritation. **Skin:** Material may be an irritant. Susceptible persons with known allergies to methacrylates and acrylates may develop allergic response. **Ingestion:** Material is probably not harmful if swallowed.
- 6.3 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.
- 6.4 Signs and symptoms of exposure:** Dermal redness or irritation. **Eye contact:** Irritation and possible corneal damage. **Skin contact:** Irritation or possible allergic response. Severe allergic response may result in breathing difficulties.
- 6.5 Medical conditions generally aggravated by exposure:** Open sores and wounds of the skin. Individuals with known sensitivity to methacrylates, acrylates.
- 6.6 Emergency first aid procedures:** **Eyes:** In case of eye contact, flush with flowing water for 15 minutes. Get prompt medical attention. **Skin:** Wash skin with soap and water. If irritation persists, call physician. **Ingestion:** If swallowed give 2 glasses of water to drink. See a physician.
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SECTION VII - Precautions for Safe Handling and Use

- 7.1 Steps to be taken in case material is released or spilled:** 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.
- 7.2 Waste disposal methods:** Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations.
- 7.3 Precautions to be taken in handling and storage:** Store in a dry area, away from direct sunlight. Maximum storage temperature is 50°C(122°F). Normal storage is at room temperature. Store away from food and beverages.
- 7.4 Other precautions:** Avoid contact with skin. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.
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SECTION VIII - Control Measures / Personal Protection

- 8.1 Respiratory protection:** None required during normal use of this product.
- 8.2 Ventilation:** None required during normal intended use of this product.
- 8.3 Protective gloves:** Latex or vinyl gloves.
- 8.4 Eye protection:** Protective goggles.
- 8.5 Other protective clothing or equipment:** Chemically resistant apron or other impervious clothing.
- 8.6 Work/Hygienic practices:** Observe normal care when working with chemicals. Avoid eye and skin contact, inhalation and ingestion. Do not eat, drink or smoke when using.

NFPA HAZARD CLASSIFICATIONS	
Health	0
Flammability	1
Reactivity	0
Specific Hazard	N. A.

NFPA – National Fire Protection Association
N.A. - Not Applicable
N.E. - Not Established

507895 (R-02/19/02)

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Information

1.1 Product Trade Name: CALIBRA[®] Silane Coupling Agent
1.2 Part (Item) Number: 607060 – 607080 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 3/4/99 **Date Revised:** 02/19/02

SECTION II - Hazardous Ingredients/Identity Information

Hazardous Components	OSHA PEL	ACGIH TLV	CAS #	Percent
Ethyl Alcohol	1000 ppm	1000 ppm	64-17-5	92.6 %
Acetone	500 ppm	500 ppm	67-64-1	7.4 %
Benzene	0.5 ppm	0.5 ppm	71-43-2	< than 0.15 ppm

SECTION III – Physical/Chemical Characteristics

3.1 Boiling point: 78°C(173°F) **3.6 Specific Gravity:** 0.8 g/cm³
3.2 Vapor pressure: 44.6 **3.7 Melting Point:** -114°C(-173°F)
3.3 Vapor density: 1.59 **3.8 Evaporation rate:** N. E.
3.4 Solubility in water: Completely Soluble.
3.5 Appearance and odor: Clear liquid with characteristic alcohol odor.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): 6°C(43°F) Tag Closed Cup
4.2 Autoignition Temperature: 423°C(793°F)
4.3 Flammability (explosive limits): LEL: 3.3 UEL: 19
4.4 Extinguishing media: Use dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective, but should be used to keep fire-exposed containers cool.
4.5 Special fire fighting procedures: If a leak or spill has not ignited, use water spray to disperse vapors and protect personnel attempting to stop a leak. Water spray may be used to flush spills away from exposures and to dilute spills to nonflammable mixtures.
4.6 Unusual fire and explosion hazards: Firefighters should wear full protective clothing including a self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes or hazardous decomposition products.
4.7 Hazardous Combustion Products: Incomplete combustion may produce carbon monoxide and/or carbon dioxide.

SECTION V – Reactivity Data

5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Heat, flame, sparks, elevated temperatures above 50°C (122°F).
5.3 Incompatibility (materials to avoid): Avoid acetyl chloride and strong oxidizing materials, which may react violently.
5.4 Hazardous decomposition or byproducts: Incomplete combustion may produce carbon monoxide or carbon dioxide.
5.5 Hazardous polymerization: May occur: Will not occur: X
5.6 Conditions to avoid: Elevated temperatures and oxidizing materials.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: Possible	Skin?: Yes	Ingestion?: Possible
6.2 Health hazards (acute and chronic):			
Summary of Acute Hazards:	Minimal health hazard in normal use and in the quantities present in this product. For larger quantities and with prolonged exposure, ethyl alcohol is considered a moderate health hazard.		
Summary of Chronic Hazards:	Not a chronic hazard under the normal conditions of use. However, if ingested in large quantities for a prolonged period of time, may be a carcinogenic or a cause of Fetal Alcohol syndrome.		
6.3 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. Not a carcinogen under normal conditions of use. The IARC has reported a relationship between prolonged drinking of significant quantities of alcoholic beverages and cancer of the oral cavity, pharynx, esophagus and liver.			
6.4 Teratogenicity, Mutagenicity, Reproductive Toxicity: Ingestion of alcohol by pregnant women is associated with Fetal Reproductive Toxicity.			
6.5 Signs and symptoms of exposure: Inhalation: None in normal conditions of use. Exposure to over 1000 ppm may cause headache, drowsiness and lassitude, loss of appetite, inability to concentrate, and irritation of throat. Eye Contact: Liquid or vapor may cause irritation. Skin Absorption: None in normal conditions of use. However, for large quantities and prolonged contact, similar symptoms to inhalation/ingestion may occur. Skin Contact: May cause irritation and defatting of skin on prolonged contact. Ingestion: None in small quantities of normal conditions of use. For large quantities, may cause depression of the central nervous system, nausea, vomiting, diarrhea.			
6.6 Emergency first aid procedures: Eyes: In case of eye contact, flush immediately with flowing water for at least 15 minutes. Get prompt medical attention. Skin: Immediately flush affected area with plenty of cool water. Wash skin with soap and water. If irritation persists, call physician. Ingestion: For large quantities: if victim is conscious and able to swallow, have victim drink water or milk to dilute. Never give anything by mouth to an unconscious or convulsing person. Call a physician or Poison Control Center immediately. Induce vomiting only on their advice.			

SECTION VII – Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	For small quantities (as in this product): Wear gloves and safety glasses. Pick up with absorbent material, such as paper or cloth. Rinse area of spill with water. Place all material in closed container away from heat, sparks, sun and oxidizers.
7.2 Waste disposal methods:	Dispose of in accordance with Federal, State and Local environmental control regulations.
7.3 Precautions to be taken in handling and storage:	For small quantities (as in this product): Keep tightly closed, in a well ventilated area, away from heat, sparks, direct sunlight, and oxidizing agents. Protect container against physical damage. Take these same precautions when container is empty, as residual product is hazardous. Store away from food and beverages. Store away from extreme heat.
7.4 Other precautions:	Avoid contact with skin. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.

SECTION VIII – Control Measures / Personal Protection

8.1 Respiratory protection: None required during normal use of this product.

8.2 Ventilation: None required during normal intended use of this product. However for large quantities and prolonged exposure, methods such as enclosure, local ventilation and dilution are recommended to reduce concentration below TLV.

8.3 Protective gloves: Chemically impervious gloves are recommended when skin contact is possible.

8.4 Eye protection: Safety glasses are recommended when no eye contact is anticipated. Chemical safety goggles should be worn whenever there is a possibility of splashing or other contact with eyes.

8.5 Other protective clothing or equipment: Chemically resistant apron or other impervious clothing.

8.6 Work/Hygienic practices: Observe normal care when working with chemicals. Wash hands after use. Avoid eye and skin contact, inhalation and ingestion. Do not eat, drink or smoke when using.

NFPA HAZARD CLASSIFICATIONS	
Health	0
Flammability	3
Reactivity	0
Specific Hazard	N. A.

NFPA – National Fire Protection Association

N.A. - Not Applicable

N.E. - Not Established

507891 (R-02/19/02)

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Identification

1.1 Product Trade Name: CALIBRA[®] TRY-IN Pastes
1.2 Part (Item) Number: 607058 - 607080 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 3/8/99 **Date Revised:** 2/19/02

SECTION II – Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Glycerine	10 mg/m ³	10 mg/m ³	56-81-5	> than 70 %
Titanium Dioxide	10 mg/m ³	10 mg/m ³	13463-67-7	< than 2 %
Amorphous Fumed Silica	2 mg/m ³	2 mg/m ³	7631-86-9	< than 20 %

SECTION III – Physical/Chemical Characteristics

3.1 Boiling point:	>290°C(554°F)	3.5 Appearance and odor:	Multi-colored pastes with mild odor.
3.2 Vapor pressure:	N. E.	3.6 Specific Gravity:	1.4 g/cm ³
3.3 Vapor density:	3.1	3.7 Melting Point:	N. E.
3.4 Solubility in water:	Partially Soluble.	3.8 Evaporation rate:	N. E.

SECTION IV – Fire and Explosion Hazard Data

4.1 Flash point (method used):	199°C (390°F) PMCC
4.2 Flammability (explosive limits):	LEL: N. E. UEL: N. E.
4.3 Extinguishing media:	Dry chemical, carbon dioxide water-spray.
4.4 Special fire fighting procedures:	Fire fighter should wear full protective clothing including a self-contained breathing apparatus.
4.5 Unusual fire and explosion hazards:	During a fire, irritating gas may be present from the decomposition of the glycerine.

SECTION V – Reactivity Data

5.1 Stability:	Unstable: Stable: X
5.2 Conditions to avoid (stability):	Heat greater than 50°C/122°F.
5.3 Incompatibility (materials to avoid):	Avoid strong oxidizing agents, such as sodium hypochlorite, hypochlorous acid.
5.4 Hazardous decomposition or byproducts:	May liberate acrolein, carbon monoxide or carbon dioxide.
5.5 Hazardous polymerization:	May occur: Will not occur: X
5.6 Conditions to avoid (polymerization):	None.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: No Skin?: Yes Ingestion?: No
6.2 Health hazards (acute and chronic):	Eyes: Contact may cause irritation. Skin: Contact may cause irritation. Ingestion: Material is probably not harmful if swallowed. Inhalation: None currently known.
6.3 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.
6.4 Signs and symptoms of exposure:	Eye contact: Irritation and possible corneal damage. Skin contact: Possible irritation. Inhalation: None currently known.
6.5 Medical conditions generally aggravated by exposure:	Open sores or wounds of the skin. Skin contact may aggravate an existing dermatitis and/or cause an allergic skin reaction is sensitized individuals.
6.6 Emergency first aid procedures:	Eyes: In case of eye contact, flush with flowing water for 15 minutes, including under the eyelids and get medical attention if irritation persists. Skin: Flush with flowing water then wash area with mild soap and water. Ingestion: Rinse mouth with water, do not induce vomiting. If conscious, give lots of water or milk. Get immediate medical attention.

SECTION VII – Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	Scoop up bulk material and place in a labeled plastic or metal container.
7.2 Waste disposal methods:	Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations.
7.3 Precautions to be taken in handling and storage:	Store in a dry area, away from direct sunlight. Maximum storage temperature is 50°C (122°F). Normal storage is at room temperature. Store away from food and beverages.
7.4 Other precautions:	Observe normal warehouse handling procedures. Store at ambient temperature out of direct sunlight and heat. Keep away from food and beverages. Keep container closed to prevent contamination. Handling of this product should be by trained dental healthcare professionals only.

SECTION VIII – Control Measures / Personal Protection

8.1 Respiratory protection:	None required during normal use of this product. Local ventilation if in large quantities.
8.2 Ventilation:	None required during normal use of this product.
8.3 Protective gloves:	Rubber gloves.
8.4 Eye protection:	Safety glasses.
8.5 Other protective clothing or equipment:	Rubber apron.
8.6 Work/Hygienic practices:	Observe normal care when working with chemicals. Avoid eye and skin contact, inhalation and ingestion. Do not eat, drink or smoke when using

NFPA HAZARD CLASSIFICATIONS	
Health	0
Flammability	0
Reactivity	0
Specific Hazard	N. A.

NFPA - National Fire Protection Association

N.A. – Not Applicable

N.E. – Not Established

507893 (R-02/19/02)

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Identification

1.1 Product Trade Name: CAULK[®] 34% TOOTH CONDITIONER GEL
1.2 Part (Item) Number: 646100 646125 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 10/01/98 **Date Revised:** 9/24/01

SECTION II - Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Phosphoric Acid	1 mg/m ³	1 mg/m ³	7664-38-2	34%

SECTION III - Physical/Chemical Characteristics

3.1 Boiling point: 108°C/226°F
3.2 Vapor pressure: N. A.
3.3 Vapor density: N. A.
3.4 Solubility in water: Yes Soluble
3.5 Appearance and odor: Blue gel with acrid odor.
3.6 Specific Gravity: 1.3 g/cm³
3.7 Melting Point: -35°C/-31°F
3.8 Evaporation rate: N. A.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): N. A.
4.2 Flammability (explosive limits): LEL: N.E. UEL: N.E.
4.3 Extinguishing media: N. A.
4.4 Special fire fighting procedures: N. A.
4.5 Unusual fire and explosion hazards: N. A.

SECTION V – Reactivity Data

5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Contact with metals and strong bases.
5.3 Incompatibility (materials to avoid): Keep separated from strong bases.
5.4 Hazardous decomposition or byproducts: Hydrogen may be released if reacted with metal.
5.5 Hazardous polymerization: May occur: Will not occur: X
5.6 Conditions to avoid (polymerization): Extreme heat and contact with metals and bases.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: No Skin?: Yes Ingestion?: Possible
6.2 Health hazards (acute and chronic):	May cause destruction of skin tissue or primary irritant dermatitis. Inhalation of vapors may cause varying degrees of damage to the affected tissue and also increased susceptibility to respiratory illness.
6.3 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.
6.4 Signs and symptoms of exposure:	Product may irritate the eyes and skin. Eye contact: irritation and possible corneal damage. Skin contact: irritation or possible allergic response. Reddish rashes may be seen on the skin.
6.5 Medical conditions generally aggravated by exposure:	Persons with pre-existing skin disorders, eye problems or impaired liver, kidney or respiratory function.
6.6 Emergency first aid procedures:	Eyes: In case of eye contact, flush with flowing water for 15 minutes, including under the eyelids and get medical attention. Skin: Flush with flowing water for 15 minutes, then wash area with mild soap and water. Call physician. Ingestion: Rinse mouth with water. Consult a physician immediately if amount was large or if irritation persists.

SECTION VII - Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	Neutralize material with sodium bicarbonate and spread sand or vermiculite on material. Scoop up and dispose of in accordance with Federal, State and Local environmental regulations.
7.2 Waste disposal methods:	Dispose of in accordance with Federal, State and Local environmental regulations.
7.3 Precautions to be taken in handling and storage:	Store at ambient temperatures, away from strong bases and metals.
7.4 Other precautions:	Store away from food and beverages. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only..

SECTION VIII – Control Measures / Personal Protection

8.1 Respiratory protection:	None required during normal use of this product. In large quantities use acid gas vapor canister respirator or self-contained breathing apparatus.
8.2 Ventilation:	Local exhaust recommended.
8.3 Protective gloves:	Rubber gloves.
8.4 Eye protection:	Close fitting protective goggles.
8.5 Other protective clothing or equipment:	Rubber apron. Eye wash, safety shower for large quantities.
8.6 Work/Hygienic practices:	Observe normal care when working with chemicals.

NFPA HAZARD CLASSIFICATIONS	
Health	2
Flammability	0
Reactivity	0
Specific Hazard	ACID / COR

NFPA - National Fire Protection Association
N.A. - Not Applicable
N.E. - Not Established

546899 (R-9/24/01)

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Identification

1.1 Product Trade Name: CAULK[®] 50% TOOTH CONDITIONER LIQUID
1.2 Part (Item) Number: 646009 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 10/01/98 **Date Revised:** 9/24/01

SECTION II - Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Phosphoric Acid	1 mg/m ³	1 mg/m ³	7664-38-2	50 %

SECTION III - Physical/Chemical Characteristics

3.1 Boiling point: 108°C/226°F
3.2 Vapor pressure: N. A.
3.3 Vapor density: N. A.
3.4 Solubility in water: Yes Soluble
3.5 Appearance and odor: Clear liquid with acrid odor.
3.6 Specific Gravity: 1.3 g/cm³
3.7 Melting Point: -35°C/-31°F
3.8 Evaporation rate: N. A.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): N. A.
4.2 Flammability (explosive limits): LEL: N.E. UEL: N.E.
4.3 Extinguishing media: N. A.
4.4 Special fire fighting procedures: N. A.
4.5 Unusual fire and explosion hazards: N. A.

SECTION V – Reactivity Data

5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Contact with metals and strong bases.
5.3 Incompatibility (materials to avoid): Keep separated from strong bases.
5.4 Hazardous decomposition or byproducts: Hydrogen may be released if reacted with metal.
5.5 Hazardous polymerization: May occur: Will not occur: X
5.6 Conditions to avoid (polymerization): Extreme heat and contact with metals and bases.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: No Skin?: Yes Ingestion?: Possible
6.2 Health hazards (acute and chronic):	May cause destruction of skin tissue or primary irritant dermatitis. Inhalation of vapors may cause varying degrees of damage to the affected tissue and also increased susceptibility to respiratory illness.
6.3 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.
6.4 Signs and symptoms of exposure:	Product may irritate the eyes and skin. Eye contact: irritation and possible corneal damage. Skin contact: irritation or possible allergic response. Reddish rashes may be seen on the skin.
6.5 Medical conditions generally aggravated by exposure:	Persons with pre-existing skin disorders, eye problems or impaired liver, kidney or respiratory function.
6.6 Emergency first aid procedures:	Eyes: In case of eye contact, flush with flowing water for 15 minutes, including under the eyelids and get medical attention. Skin: Flush with flowing water for 15 minutes, then wash area with mild soap and water. Call physician. Ingestion: Rinse mouth with water. Consult a physician immediately if amount was large or if irritation persists.

SECTION VII – Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	Neutralize material with sodium bicarbonate and spread sand or vermiculite on material. Scoop up and dispose of in accordance with Federal, State and Local environmental regulations.
7.2 Waste disposal methods:	Dispose of in accordance with Federal, State and Local environmental regulations.
7.3 Precautions to be taken in handling and storage:	Store at ambient temperatures, away from strong bases and metals.
7.4 Other precautions:	Store away from food and beverages. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.

SECTION VIII – Control Measures / Personal Protection

8.1 Respiratory protection:	None required during normal use of this product. In large quantities use acid gas vapor canister respirator or self-contained breathing apparatus.
8.2 Ventilation:	Local exhaust recommended.
8.3 Protective gloves:	Rubber gloves.
8.4 Eye protection:	Close fitting protective goggles.
8.5 Other protective clothing or equipment:	Rubber apron. Eye wash, safety shower for large quantities.
8.6 Work/Hygienic practices:	Observe normal care when working with chemicals. Handling of this product should be by trained dental healthcare professionals only.

NFPA HAZARD CLASSIFICATIONS	
Health	2
Flammability	0
Reactivity	0
Specific Hazard	ACID / COR

NFPA - National Fire Protection Association

N.A. - Not Applicable

N.E. - Not Established

546898 (R-9/24/01)

MATERIAL SAFETY DATA SHEET

SECTION I – Product/Company Identification

1.1 Product Trade Name: **PRIME & BOND[®] Self Cure Activator** for use with
Prime & Bond[®] NT[™] Nano–Technology Universal Dental Adhesive
1.2 Part (Item) Number: **634353 – 634355 all Package Configurations**
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 09/01/98 Date Revised: 08/31/01

SECTION II – Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Acetone	500 ppm	500 mg/m ³	67-64-1	< than 65%
Ethyl Alcohol	1000 ppm	1000 ppm	64-17-5	< than 45%
Sodium p-Toluenesulfinate	N. E.	N. E.	824-79-3	< than 2%

SECTION III - Physical/Chemical Characteristics

3.1 Boiling point: 56°C (133°F) **3.6 Specific Gravity:** approximately 0.8 g/cm³
3.2 Vapor pressure: N. E. **3.7 Melting Point:** N. E.
3.3 Vapor density: N. E. **3.8 Evaporation rate:** N. E.
3.4 Solubility in water: 100% Soluble
3.5 Appearance and odor: Clear liquid with acetone and alcohol odor.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): -18°C (0°F) Closed Cup
4.2 Flammability (explosive limits): LEL: 2.5 vol % UEL: 13 vol %
4.3 Extinguishing media: Carbon dioxide, dry chemical, water fog, and foam.
4.4 Special fire fighting procedures: Firefighters should wear full protective clothing including a MSHA/NIOSH approved, pressure demand, self-contained breathing apparatus.
4.5 Unusual fire and explosion hazards: Keep away from fire.

SECTION V – Reactivity Data

5.1 Stability: **Unstable:** **Stable:** X
5.2 Conditions to avoid (stability): High temperatures
5.3 Incompatibility (materials to avoid): Strong oxidants
5.4 Hazardous decomposition or byproducts: N. E.
5.5 Hazardous polymerization: **May occur:** **Will not occur:** X
5.6 Conditions to avoid (polymerization): N. A.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: Yes Skin?: Yes Ingestion?: Yes
6.2 Health hazards (acute and chronic):	Eye Contact: Material may cause irritation and possible corneal damage. Avoid contact with eyes. Skin: Material may be an irritant. Possible nausea on prolonged exposure.
6.3 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.
6.4 Signs and symptoms of exposure:	Eye Contact: Material may cause irritation and possible corneal damage. Dermal redness, irritation or possible allergic reaction.
6.5 Medical conditions generally aggravated by exposure:	Open sores and wounds of the skin.
6.6 Emergency first aid procedures:	Eyes: In case of eye contact, flush with flowing water for 15 minutes, including under the eyelids. Get prompt medical attention. Skin: Wash skin with soap and water. If irritation persists, call physician. Ingestion: Consult a physician. Inhalation: Move to fresh air. Call physician if discomfort persists.

SECTION VII - Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	Absorb spilled material with inert material such as sand or vermiculite. Scoop up and dispose of in accordance with Federal, State and Local environmental regulations.
7.2 Waste disposal methods:	Dispose of in accordance with Federal, State and Local environmental regulations.
7.3 Precautions to be taken in handling and storage:	Store at ambient temperatures, avoid prolonged exposure to temperatures above 37°C(100°F). Store away from oxidizing agents such as peroxides.
7.4 Other precautions:	Store away from food and beverages. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.

SECTION VIII – Control Measures / Personal Protection

8.1 Respiratory protection:	None required during normal use of this product. In large quantities use a self-contained breathing apparatus.
8.2 Ventilation:	Local exhaust is recommended. Mechanical ventilation using explosion-proof motors is acceptable.
8.3 Protective gloves:	Latex or rubber gloves.
8.4 Eye protection:	Close fitting protective goggles.
8.5 Other protective clothing or equipment:	Rubber apron. Eye wash, safety shower.
8.6 Work/Hygienic practices:	Observe normal care when working with chemicals. Handling of this product should be by trained dental healthcare professionals only.

NFPA HAZARD CLASSIFICATIONS	
Health	1
Flammability	3
Reactivity	0
Specific Hazard	N. A.

NFPA - National Fire Protection Association
N.A. - Not Applicable
N.E. - Not Established

534397 (R-8/31/01)

MATERIAL SAFETY DATA SHEET

SECTION I – Product / Company Identification

1.1 Product Trade Name: PRIME & BOND[®] NT[™] including Unit Dose Package
1.2 Part (Item) Number: 634350 – 634359 All Package Configurations
1.3 Division Name: DENTSPLY Caulk
1.4 Address: 38 West Clarke Avenue
City State Zip: Milford DE 19963-0359
Internet Address: <http://www.caulk.com>
1.5 Emergency Telephone Number: (800) 424-9300 (Chemtrec)
1.6 Telephone Number for Information: (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)
1.7 Date Prepared: 07/24/00 **Date Revised:** 07/24/03

SECTION II – Hazardous Ingredients / Identity Information

<u>Hazardous Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>	<u>Percent</u>
Acetone	500 ppm	500 mg/m ³	67-64-1	< 70 %
Urethane dimethacrylate resin	N. E.	N. E.	105883-40-7	< 20 %
Dipentaerythritol pentaacrylate phosphate	N. E.	N. E.	87699-25-0	< 10 %
Polymerizable dimethacrylate resins	N. E.	N. E.	2358-84-1	< 10 %
Polymerizable trimethacrylate resins	N. E.	N. E.	3290-92-4	< 10 %

SECTION III – Physical / Chemical Characteristics

3.1 Boiling point: 56°C (133°F) **3.6 Specific Gravity:** approximately 0.9 g/cm³
3.2 Vapor pressure: 233 mbar @ 20°C **3.7 Melting Point:** -95°C (-139°F)
3.3 Vapor density: N. E. **3.8 Evaporation rate:** N. E.
3.4 Solubility in water: Partially
3.5 Appearance and odor: Light yellow liquid with acetone odor.

SECTION IV - Fire and Explosion Hazard Data

4.1 Flash point (method used): -19°C (-2°F) Closed Cup
4.2 Flammability (explosive limits): LEL: 2.5 vol % UEL: 13 vol %
4.3 Extinguishing media: Carbon dioxide, dry chemical, water fog, and foam.
4.4 Special fire fighting procedures: Firefighters should wear full protective clothing including a self-contained breathing apparatus.
4.5 Unusual fire and explosion hazards: During a fire irritating gases from the decomposition of the resins may be present.

SECTION V – Reactivity Data

5.1 Stability: **Unstable:** **Stable:** X
5.2 Conditions to avoid (stability): Visible light, high temperatures, humidity.
5.3 Incompatibility (materials to avoid): Strong oxidants, alkali metals, and halogens.
5.4 Hazardous decomposition or byproducts: Methacrylates, acrylates, and irritating gases.
5.5 Hazardous polymerization: **May occur:** **Will not occur:** X
5.6 Conditions to avoid (polymerization): Strong visible lights and elevated temperatures.

SECTION VI - Health Hazard Data

6.1 Route(s) of entry:	Inhalation?: Yes Skin?: Yes Ingestion?: Possible
6.2 Health hazards (acute and chronic):	Eye Contact: Material may cause irritation and possible corneal damage. Avoid contact with eyes. Skin: Material may be an irritant. Susceptible persons with known allergies to methacrylates and acrylates may develop allergic response.
6.3 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.
6.4 Signs and symptoms of exposure:	Dermal redness or irritation. Severe allergic response may result in breathing difficulties.
6.5 Medical conditions generally aggravated by exposure:	Open sores and wounds of the skin. Individuals with known sensitivity to methacrylates, acrylates, or urethane dimethacrylates.
6.6 Emergency first aid procedures:	Eyes: In case of eye contact, flush with flowing water for 15 minutes, including under the eyelids. Get prompt medical attention. Skin: Wash skin with soap and water. If irritation persists, call physician. Ingestion: If swallowed give 2 glasses of water to drink. See a physician. Inhalation: Move to fresh air. Call physician if discomfort persists or if amount was large.

SECTION VII - Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled:	Absorb spilled material with inert material such as sand or vermiculite. Scoop up and dispose of in accordance with Federal, State and Local environmental regulations.
7.2 Waste disposal methods:	Dispose of in accordance with Federal, State and Local environmental regulations.
7.3 Precautions to be taken in handling and storage:	Store at ambient temperatures, avoid prolonged exposure to temperatures above 37°C(100°F). Store away from oxidizing agents.
7.4 Other precautions:	Store away from food and beverages. Observe normal warehouse handling procedures. Handling of this product should be by trained dental healthcare professionals only.

SECTION VIII - Control Measures / Personal Protection

8.1 Respiratory protection:	None required during normal use of this product. In large quantities use a self-contained breathing apparatus.
8.2 Ventilation:	Local exhaust is recommended. Mechanical ventilation using explosion-proof motors is acceptable.
8.3 Protective gloves:	Latex or rubber gloves.
8.4 Eye protection:	Close fitting protective goggles.
8.5 Other protective clothing or equipment:	Rubber apron. Eye wash, safety shower.
8.6 Work/Hygienic practices:	Observe normal care when working with chemicals. Handling of this product should be by trained dental healthcare professionals only.

NFPA HAZARD CLASSIFICATIONS	
Health	1
Flammability	3
Reactivity	0
Specific Hazard	N. A.

NFPA - National Fire Protection Association
N.A. - Not Applicable
N.E. - Not Established

534398 (R-07/24/03)