

**DENTSPLY/International
DENTSPLY/Caulk
Material Safety Data Sheet**

578133

1. Product and Company Identification	
Product Name B4™ Pre-Impression Surface Optimizer	MSDS Code Number 578133
Trade Name & Synonyms B4™ Pre-Impression Surface Optimizer	Date of Last Revision 02/23/07
Chemical Name Surfactant	Manufacturer DENTSPLY/Caulk
C.A.S. Number N. A.	Address 38 West Clarke Avenue Milford DE 19963-1805 http://www.caulk.com
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	%
Ethanol	64-17-5	N. A.	< 40
Polyethylene Glycol	25322-68-3	N. A.	< 20

Other information: Colorant used is FD & C Yellow #6.

3. Hazard Identification					
Emergency Overview Material is irritating to eyes, respiratory system and skin. Breathing vapors may cause drowsiness and dizziness.					
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. Stinging or burning sensation	Single	Moderate	Irritation and possible corneal damage	Eyes
Skin	Material may be an irritant and may be absorbed through the skin. Stinging or burning sensation	Single & Repeated	Moderate	Dryness, irritation or possible Dermatitis.	Skin
Inhalation	Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma.	Repeated	Moderate	Chronic inhalation may cause effects similar to those of acute inhalation. Causes respiratory tract irritation. May cause depression, loss of motor coordination and speech abnormalities.	CNS, liver, heart
Ingestion	May cause irritation of the digestive tract. Ingestion may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma.	Single & Repeated	Moderate	Ingestion may cause effects similar to those of acute inhalation. Causes respiratory tract irritation. May cause depression, motor incoordination and speech abnormalities.	CNS, liver, heart
Other Central nervous system	Depression, Narcotic effect	Single, Repeated, or Lifetime Exposure.	Moderate	May cause depression, motor incoordination and speech abnormalities..	CNS, liver, heart
Medical Conditions Aggravated by Exposure Open sores and wounds of the skin. Depression, nerve, heart and liver conditions					
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 =2, Fire =3, Reactivity=0 Specific Hazard = None					

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4. First Aid Measures

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	Not Applicable	Not Applicable
Skin	Immediately wash with soap and water and rinse thoroughly	Not Applicable	Not Applicable
Inhalation	Supply fresh air	Not Applicable	Not Applicable
Ingestion	If symptoms persist consult physician	Not Applicable	Not Applicable
Other	Not Applicable	Not Applicable	Not Applicable

Note to Physicians (Treating, Testing and Monitoring) Treat symptomatically.

5. Fire and Explosion Data

Flashpoint Method: 21°C (70°F) Pensky-Marten Closed Cup	Flammable (Explosive) Limits in Air LEL: 2.5 vol. % UEL: 12.8 vol. %	Autoignition Temperature: Not Applicable	Other: Not Applicable
Flame Propagation or Burning Rate (for Solids): Not Applicable	Properties Contributing to Fire Intensity: Not Applicable	Flammability Classification Not Applicable	
Extinguishing Media: CO ₂ , extinguishing powder or water spray. Fight larger fires with water sprat 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 gases is possible during heating or in case of fire.			

6. Accidental Release Measures

Containment Techniques: Wear protective clothing and absorb spill with inert material (e.g. vermiculite, sand, earth), then place material in suitable labeled plastic or metal container.
Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and absorb spill with inert material (e.g. vermiculite, sand, earth), then place material in suitable labeled plastic or metal container. Avoid gross skin contact to minimize the possibility of contact dermatitis to susceptible persons. Ensure adequate ventilation.
Evacuation Procedures: Not Applicable
Special Instructions: Not Applicable
Reporting Requirements: Not Applicable

7. Handling and Storage

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. Protect from exposure to direct light. Store away from food and beverages.

8. Exposure Control / Personal Protection

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	Not Applicable
Skin	The glove material has to be impermeable and resistant to the product.	Not Applicable
Inhalation	Not Required for normal volumes used in Dental office.	Not Applicable
Body Protection	Protective work clothing	Not Applicable
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: Not Applicable		
Other Protective Measures and Equipment: Not Applicable		

9. Physical and Chemical Characteristics

Appearance: Orange liquid.	Odor: Alcohol
Normal Physical State: Low Viscosity Liquid	Melting Point: Not Applicable Boiling Point: 76.7 °C/170.6°F (Initial)
Specific Gravity: ~1.0 g/cm ³	Solubility in Water: Soluble pH: 5-8
Vapor Pressure (mm Hg): 18.8 @ 20°C	Vapor Density (AIR=1) N. A. Evaporation Rate (Butyl Acetate =1) Not Applicable
Other: Not Applicable	

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10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Visible light, high temperatures, strong acids, strong oxidizing agents.	
Hazardous Products Produced During Decomposition: Carbon dioxide, carbon monoxide, peroxides and irritating gases.	
Hazardous Polymerization: <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> May Not Occur	Conditions to Avoid: High Temperatures, ignition sources.
Stability? <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions to Avoid: High Temperatures, ignition sources.

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 product may be an irritant to the skin in susceptible persons. On the eye the product has an irritating effect. Sensitization. This product shows the following dangers according to internally approved calculation methods for composite materials: Irritant. ACGIH: A4- Not classifiable as a Human Carcinogen.

12. Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class1 (Self-assessment): The ethanol in the product will volatilize, leech and biodegrade when released to the soil. Terrestrial Fate: If release on soil, ethanol will both volatilize and leach into the ground. Ethanol readily biodegrades and there is evidence suggesting that it biodegrade fairly rapidly in soils. Aquatic Fate: If released into water ethanol will biodegrade. It is readily biodegradable in screening tests, although data from natural water are lacking. It will also be lost due to volatilization. Adsorption to sediment should not be significant.

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.
RCRA P-Series: None Listed, RCRA U-Series CAS#67-64-1: Waste Number U002 (Ignitable Waste)

14. Transport Information

Regulated for Shipping: Yes	Proper Shipping Name: Ethyl Alcohol Solution	Packing Group: II
Do Changes in Quantities, packaging, or shipment method change product classification? No	Hazard Class: 3	UN Identification Number: 1170
Other: Not Applicable		

15. Regulatory Information

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: No chemicals have a reportable quantity. Report spills required under federal, state and local regulations. Many states have more stringent release reporting requirements.
Federal Regulations: The product has been classified and marked in accordance with directives on hazardous materials. Hazard Symbol: Flammable Water Hazard class1 (Self-assessment): slightly hazardous for water. SARA Codes: CAS # 64-17-5 Acute, chronic, flammable.
RCRA U-Series Hazardous Waste Code : Not Applicable
Section 313 Toxic Chemicals: This product does not contain any chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372).
SARA Codes: CAS# 64-17-5 Ethyl Alcohol: immediate, delayed, fire.
Section 302 Extremely Hazardous Substances (TPQ): None
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.
U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California Proposition 65 list.
Clean Air Act: CAS# 64-17-5 Ethyl Alcohol: is not listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 ozone depleters. This material does not contain any Class 2 depleters.
Clean Water Act: CAS# 64-17-5 Ethyl Alcohol: is not listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: OSHA considers none of the chemicals in this product highly hazardous.
WGK (Water Danger /Protection): CAS# 64-17-5 Ethyl Alcohol: 0
International Regulations: Hazard Symbol: Flammable XI F Risk Phrases: R11 Highly Flammable, R36 Irritating to Eyes, R66 Repeated exposure may cause dryness or cracking, R67 Vapors may cause drowsiness and dizziness. Safety Phrases: S16 Keep away from sources of ignition – No Smoking, S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, S9 Keep container in a well –ventilated place.
Canada WHMIS for CAS# 64-17-5 Ethyl Alcohol, classification of B2 D2A, Flammable Liquid is on the Canadian Ingredient Disclosure List.

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.