



## SAFETY DATA SHEET

Document Number: 558899

Revision Number: 4

Date Revised: 11/18/2010

### SECTION 1 – PRODUCT IDENTIFICATION

Product Name: SEAL & PROTECT™ Protective Sealant for Exposed Dentin

Product Identifier (Par/Item Number): 658010, 658011

UN Number: UN1090

UN Dangerous Goods Classification: DOT Hazard Class: 3, PG II, IATA Hazard Class: 3, PG II, IMDG Class: 3, PG II

Product Use: Dental Sealant for Teeth

Restrictions on Use: Do not use on persons hypersensitive to acrylates or other formula ingredients

Manufacturer/Supplier: DENTSPLY Professional

Manufacturer/Supplier Address: 1301 Smile Way, York, PA 17404

Product Information Telephone Number: 1-800-989-8826 or 717-767-8502

Transit Emergency Contact Telephone Number: 800-424-9300 Chemtrec

Email Address: ProfessionalMSDS@dentsply.com

### SECTION 2 – HAZARDS IDENTIFICATION

Emergency Overview: Extremely Flammable Liquid and Vapor. Corrosive. Vapor may cause flash fire. Causes eye and skin burns. May cause skin sensitization. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea, central nervous depression, narcosis and unconsciousness. Harmful if swallowed.

EU Preparation Classification (1999/45/EC): Highly Flammable (F), Corrosive (C), (N) Dangerous for the Environment R11, R34, R43, R66, R67, R50/53

### SECTION 3 – COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS No./EINECS No.	Percent	EC Substance Classification (67/548/EEC)
Acetone	67-64-1 / 200-662-2	40-50%	F; Xi R11, R36, R66, R67
Dipentarythritol Pentaacrylate Phosphate	87699-25-0	10-20%	C R34, R43
Urethane Dimethyl Resin	Proprietary	20-30%	Xi R36/38, R43
2,4,4'-Trichloro-2'-hydroxydiphenyl ether (Triclosan)	3380-34-5 / 222-182-2	1-5	Xi, N R36/38, R50/53
Trimethylolpropane Trimethylacrylate	3290-92-4 / 221-950-4	1-10%	Xi R43

See Section 16 for further information on EU Classification.

## SECTION 4 – FIRST AID MEASURES

Eye Contact: Immediately flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.

Skin Contact: Remove contaminated clothing. Immediately wash skin thoroughly with soap and water for 15 minutes. If rash, irritation or symptoms develop, get medical attention. Launder clothing before re-use. (Discard contaminated shoes).

Ingestion: Aspiration Hazard. DO NOT INDUCE VOMITING. If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Get immediate medical attention.

Inhalation: Immediately remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

## SECTION 5 – FIRE FIGHTING PROCEDURES

Extinguishing Media: Use carbon dioxide, alcohol foam or dry chemical. Use water to cool exposed containers and structures and disperse flammable vapors.

Firefighting Procedures: Firefighters should wear full emergency equipment and approved positive pressure, self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses.

Unusual Fire/Explosion Hazards: This product is extremely flammable and forms explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat.

Known or Anticipated Hazardous Products of Combustion: Carbon monoxide, carbon dioxide, methacrylates and acrylates.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate spill area and keep unprotected personnel away. Remove all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing as described in Section 8. Contain and collect using inert absorbent materials and place in appropriate containers for disposal. Use non-sparking tools and equipment. If spill has not ignited, use water spray to disperse the vapors and protect personnel attempting to stop leak. Do not flush to sewer! Report releases as required by local, state and federal authorities.

Personal Precautions: Avoid contact with skin, eyes or clothing.

Environmental Precautions: Prevent entry into sewers and waterways. Keep away from drains, surface and groundwater.

## SECTION 7 – HANDLING AND STORAGE

Handling: Avoid contact with the eyes, skin and clothing. Avoid breathing vapors. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep product away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Use with non-sparking tools and explosion proof equipment. Electrically bond and ground containers for transfer.

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retaining product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

Storage: Store in accordance with regulations for the storage of flammable liquids. Store in a dry, well ventilated area away from heat, direct sunlight and all sources of ignition. Store away from oxidizers and other incompatible materials.

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### SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Limits:

Acetone	1000 ppm PEL-TWA 500 ppm TLV-TWA 750 ppm TLV-STEL 500 ppm TWA DFG MAK 500 ppm TWA UK WEL 1500 ppm STEL UK WEL
Dipentarythritol Pentaacrylate Phosphate	None Established
Urethane Dimethyl Resin	None Established
2,4,4'-Trichloro-2'-hydroxydiphenyl ether (Triclosan)	None Established
Trimethylolpropane Trimethylacrylate	1 mg/m <sup>3</sup> skin TWA AIHA WEEL

Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Personal Protective Equipment:

Eye Protection: Chemical safety glass or chemical splash goggles.

Skin Protection: Wear impervious gloves such as butyl rubber gloves.

Respiratory Protection: None should be needed for normal use. If the exposure limits are exceeded, an approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.

Other Protective Clothing or Equipment: Clothing with long sleeves may be needed when working with large quantities.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Light yellow liquid with an acetone odor.

Boiling Point: 131°F (55°C)

Melting Point: -139°F (-95°C)

Freezing Point: Not available

Specific Gravity: 0.9 g/m<sup>3</sup>

Solubility in Water: Not miscible or difficult to mix with water

pH: Not applicable

Vapor Pressure (mmHg): 223 mmHg @ 20°C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not applicable

% Volatile by Volume: <50

Flashpoint: -2°F (-19°C)

Flammable Limits in Air:

Autoignition Temperature: Not determined

LEL: 2.6%

UEL: 13%

### SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Avoid visible light, high temperatures and humidity. Keep away from heat, sparks and all ignition sources.

Incompatibility with Other Materials: Avoid oxidizing agents, alkali metals and halogens.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, methacrylates and acrylates.

Hazardous Polymerization: Will not occur.

### SECTION 11 – TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes severe irritation or burns with redness, tearing, pain and burns. Corneal damage may occur.

Skin: Causes severe skin irritation and possible burns. May cause allergic skin reaction. Severe reaction may result in breathing difficulties.

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**Ingestion:** Ingestion may cause mucous membrane and gastrointestinal burns and nervous system depression with symptoms of headache, dizziness, narcosis, nausea, vomiting and diarrhea. Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal.

**Inhalation:** Inhalation of vapors or mists may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, nausea, central nervous depression, narcosis and unconsciousness.

**Chronic Health Effects:** Prolonged overexposure to acetone may cause effects on the kidneys and liver based on animal data.

**Carcinogenicity:** None of the components of this product are listed as carcinogens by OSHA, IARC, NTP or the EU Directives.

**Medical Conditions Aggravated by Exposure:** Individuals with pre-existing skin, respiratory, liver and kidney disease may be at increased risk from exposure.

**Acute Toxicity Data:**

Acetone	Oral Rat LD50 – 5,800 mg/kg Inhalation Rat LC50 – 50,100 mg/m <sup>3</sup> /8hr
Dipentarythritol Pentaacrylate Phosphate	No data available
Urethane Dimethyl Resin	No data available
2,4,4'-Trichloro-2'-hydroxydiphenyl ether (Triclosan)	Oral Rat LD50 – 3,700 mg/kg Skin Rabbit LD50 – 9,300 mg/kg
Trimethylolpropane Trimethylacrylate	Oral Rat LD50 – 5,660 uL/kg Skin Rabbit LD50 – 16 mL/kg

**SECTION 12 – ECOLOGICAL INFORMATION**

Acetone	96 hr/LC50 rainbow trout: > 5540 mg/L 24 hr/LC50 Goldfish 5,000 mg/L
Dipentarythritol Pentaacrylate Phosphate	No data available
Urethane Dimethyl Resin	No data available
2,4,4'-Trichloro-2'-hydroxydiphenyl ether (Triclosan)	96 hr/LC50 rainbow trout: 0.288 mg/L
Trimethylolpropane Trimethylacrylate	No data available

**SECTION 13 – DISPOSAL CONSIDERATIONS**

Dispose in accordance with national and local regulations.

**SECTION 14 – TRANSPORT INFORMATION**

DOT Shipping Name: Acetone Solution  
DOT Hazard Class: 3, PG II  
UN Number: UN1090  
DOT Labels Required (49CFR172.101): Flammable Liquid

IATA Shipping Name: Acetone Solution  
IATA Hazard Class: 3, PG II  
UN Number: UN1090  
IATA Hazard Labels Required: Flammable Liquid

IMDG Shipping Name: Acetone Solution  
IMDG Class: 3, PG II  
UN Number: UN1090  
IMDG Label: Flammable Liquid

**SECTION 15 – REGULATORY INFORMATION****U.S. FEDERAL REGULATIONS:**

CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 10,000 lbs. based on the RQ for Acetone of 5,000 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Chronic Health, Fire Hazard.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: This product is a medical device and not subject to chemical notification requirements.

**U.S. STATE REGULATIONS:**

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: Toluene <42 ppm

**INTERNATIONAL REGULATIONS:**

Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

Canadian WHMIS Classification: Medical devices are not subject to WHMIS.

European Community Labeling:

Highly  
Flammable



Corrosive



Dangerous for  
The Environment

R34 Causes burns.  
R43 May cause sensitisation by skin contact.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S16 Keep away from sources of ignition - No Smoking!  
S25 Avoid contact with eyes.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S51 Use only in well ventilated areas.  
S60 This material and/or its container must be disposed of as hazardous waste.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements.

Australian Inventory of Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

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China Inventory of Existing Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Japanese Existing and New Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is a medical device and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

## SECTION 16- OTHER INFORMATION

HMIS Hazard Rating:

Health –3      Fire Hazard – 3      Reactivity – 0

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):

C Corrosive

F Highly Flammable

N Dangerous for the Environment

Xi Irritant

R11 Highly flammable.

R34 Causes burns

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin

R43 May cause sensitization by skin contact

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Revision Date: 9/24/10

Supersedes: 01/03