Safety Data Sheet

Enamel Bond Catalyst Resin

SDS DATE: 04/15/13

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Enamel Bond Catalyst Resin**

Other Names: S-CHEM-046, Enamel Bond Catalyst

Product Use: For composite restorative materials; the catalyst component for priming/ bonding surfaces.

Supplier:
Company: Henry Schein, Inc.
135 Duryea Road
Melville, NY 11747 USA
Henry Schein U.K. Holdings Ltd.
Gillingham ME8 OSB U.K.
Telephone: (800) 472-4346

Emergency Information Chemtrec:
(800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Routes of Entry:
Inhalation, Skin contact, Eye contact, Ingestion

Potential Health Acute Effects:

Eyes:
Irritation to the eyes including but not limited to blurred vision, watering and discomfort.

Skin:
Repeated contact with skin may cause irritation. Repeated or prolonged use can lead to more severe symptoms such as severe skin reactions, symptoms may be delayed.

Inhalation:
Irritation to the throat and nose, other sympotoms such as coughing may occur. Seek medical attention if symptoms worsen or persist.

Ingestion:
Possible irritation and/or pain with ingestion icludes but is not limited to the mouth, esphogus, respiratory and digestive tracts, vomiting and/ or diarrhea. Seek medical attention immediately and report the amount ingested.

Potential Chronic Health Effects:
For Triethylene Glycol Dimethacrylate: In a chronic toxicity study, a high-dose group of male mice treated with TEGDMA showed an decrease in survival time The cause(s) were unclear. No other effects were observed, nor a correlation made to the effects on humans.

Carcinogencity:
Triethylene Glycol Dimethacrylate may contain trace amounts of substances known to the state of California to cause cancer and/or reproductive toxicity. None of the other listed components are known carcinogens.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT:	CAS NO:	WT %:
Bisphenol "A" Diglycidyl Methacrylate	001565-94-2	30.0 – 60.0
Triethylene Glycol Dimethacrylate	109-16-0	15.0 – 45.0
Proprietary	----------	<1.0 – 45.0

SECTION 4: FIRST AID MEASURES

Eyes:
Flush with copious amounts of water

Skin:
If irritation occurs and product is on the skin, rinse thoroughly with water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.

Ingestion:
If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Seek medical attention immediately.

Inhalation:
Immediately seek fresh air. Open windows and/or doors to increase ventilation. Seek immediate medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable/Explosive Limits:
No Data

Flash Point:
No Data

Extinguishing Media:
Chemical Foam, CO_2, Dry Chemical Powder, Water Fog. NOTE: Water may be ineffective in extinguishing the fire.

Special Fire Fighting Measures:
Do not enter fire area without proper protection. Fight fire from a safe location. Wear SCBAs and full protective equipment.

Unusual Fire and Explosion Hazards:
Material may burn if exposed to flame . Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Process for cleaning and take-up:
Evacuate the spill area. Maximize ventilation by opening doors and windows. Eliminate all sources of ignition. Use self-contained breathing apparatus and protective clothing, (e.g. goggles and gloves). Use non-sparking tools ONLY and dispose of the material in the proper closed container(s).

Wash all affected areas of the skin with warm water and soap. Remove clothing that has been contaminated and wash thoroughly.

Environmental Precautions:
Keep spills and cleaning runoffs out of sewers and open bodies of water. Spills on porous surfaces can contaminate the ground water. Dispose of in accordance with Federal, State and Local regulations, or appropriate governing standards.

SECTION 7: HANDLING AND STORAGE

Handling:

Handling advice:
To be handled by qualified dental professionals.
Follow instructions for use.
After each use, wash hands or exposed skin thoroughly. Do not smoke, eat or drink while using this product.

Fire and explosion protection:
Store in a cool dry , at or below room temperature, place away from heat, sparks, flame and direct sunlight. Close container after each use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Chemical Name:	CAS NUMBER:	Exposure Limits in Air:	
		OSHA-PELs	ACGIH-TLVs
Bisphenol "A" Diglycidyl Methacrylate	**001565-94-2**	NE	NE
Triethylene Glycol Dimethacrylate	**109-16-0**	NE	NE
Proprietary	----------	NE	NE

Engineering Controls:

Ventilation:
Professional: Follow precautions and directions on label.

Personal Protection:

Respiratory Protection:
A respirator should be worn whenever workplace conditions warrant its' use. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR § 1910.134 or other appropriate governing standard.

Hand Protection:
Chemical resistant gloves should be worn when prolonged or repeated skin contact is expected. If necessary, refer to U.S. OSHA 29 CFR § 1910.138, or other appropriate governing standard. Eye wash stations, safety showers or sink basins are recommended.

Eye Protection:
Safety glasses or chemical splash goggles may be worn, if necessary refer to U.S. OSHA 29 § 1910.133 or other appropriate governing standard. Eye wash stations, safety showers or sink basins are recommended.

Other:
No special body protection is required, refer to appropriate governing standard(s). OSHA has deemed Triethylene Glycol Dimethacrylate. Reference U.S. OSHA 29 § 1910.1200or other appropriate governing standard.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

General description:
State: Filled Resin
Odor: Characteristic Resin Odor
Color(s): N/A
Chemical Properties:

Designation:	Value:
Vapor Pressure	ND
Boiling Point **Freezing Point**	ND
Solubility in Water	Insoluble
Viscosity	ND
Specific Gravity (H_2O = 1)	1.1 g/cc at 25°C/ 77°F
Percent Volatile W/W%	ND
Vapor Density (AIR = 1)	ND
Evaporation Rate (BuAc = 1)	ND

SECTION 10: STABILITY AND REACTIVITY

Stability:
This material is stable

Reactivity:

Hazardous decomposition products:
Oxides of carbon when burned.

Incompatability:
High temperatures, visible light sources. Keep away from strong oxidizing agents, inert gases, oxygen scavengers. Tertiary amines.

Hazardous polymerization:
Polymerization may occur in large quantities

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data:

Bisphenol "A" Dimethacrylate:		
Oral (Rat)	LD_{50}:	3300 mg/kg
Oral (mouse)	LD_{50}:	2500 mg/kg
Oral (Rabbit)	LD_{50}:	2230 mg/kg
Intraperitoneal (Rabbit)	LD_{50}:	150 mg/kg
Dermal (Rabbit) 24-hour application	LD_{50}:	3600 mg/kg

Triethylene Glycol Dimethacrylate:		
Oral (Mouse)	LD_{50}:	10750 mg/kg
Oral (Rat)	LD_{50}:	10837 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

General ecological information:
Aquatic toxicity is possible, including physical damge or death to aquatic life; do not discharge into drains or the environment.

Bisphenol "A" Dimethacrylate:		
Menidia menidia	LC_{50}:	9.4 mg/L/96h
Selenastrum capicornutum (algae)	LC_{50}:	2.7 mg/L/96h
Pimephales promelas (Flathead minnow)	LC_{50}:	4.6 mg/L/96h
Skeletonema costatum (Diatom)	EC_{50}:	1.0 mg/L/96h
Mysiddopsis bahi (Mysid)	LC_{50}:	1.1 mg/L/96h
Daphnia magna (Water flea)	EC_{50}:	10200 µg/L/96h
Americamysis bahia (Opossum shrimp)	LC_{50}:	1100µg/L/96h
Mysidopsis bahia (Mysid shrimp, 6d old)	LC_{50}:	1.1 mg/L/96h
Oryzias latipes (Medaka, high-eyes-	LC_{50}:	8300 µg/L/72h

ad.female)		
Oryzias latipes (Medaka, high-eyes, eggs) Inhibition of hatching	IC_{50}:	9.0 mg/L/96h
Hydra vugaris	LC_{50}:	6.9 mg/L/96h
Acartia tonsa (copepod 10-12 d. old)	LC_{50}:	3.4 – 5.0 mg/L/48h
Xiphophorus helleri (Swordfish Tail)	LC_{50}:	17.93 mg/L/96h
Oncorhynchus mykiss (Rainbow Trout)	LC_{50}:	3 – 5 mg/L/96h
Brachydanio rerio	LC_{50}:	9.9 mg/L/96h
Cyprinodon variegates (Sheepshead minnow)	LC_{50}:	7.5 mg/L/96h
Acartia tonsa (copepod) Affected larval development rate	EC_{50}:	0.88 mg/L/5 days

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal of product:

Collect spilled material. Place in closed container. Dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations.

Contaminated substrates may be RCRA/OSHA hazardous waste due to the potential for heat generation. Reference codes 40 CFR §261 and 29 CFR § 1910, or the appropriate governing agencies rules and regulations.

SECTION 14: TRANSPORT INFORMATION

Not classified as a dangerous good

SECTION 15: REGULATORY INFORMATION

Symbols of Danger:

None Required

R-Phrase:

R36/37/38 – Irritating to eyes respiratory system and skin.
R21/22 – Harmful in contact with skin and if swallowed.
R43- May cause sensitization by skin contact.

S-Phrase:

S3- Keep in a cool place.
S7- Keep container closed
S9- Keep container in a well ventilated place.
S24/25 – Avoid contact with skin and eyes.
S29- Do not empty into drains.
S37/39- Wear sutiable gloves and eye/face protection.

SECTION 16: OTHER INFORMATION

All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, express or implied, is being made as to the effects of such use, the results obtained, or the safety and toxicity of the product nor is there any assumed liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.