

# Safety Data Sheet

Orthodontic Adhesive Base

SDS DATE: 04/15/13

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** Orthodontic Adhesive Base Paste

**Other Names:** S-CHEM-118, Ortho Base 2 Paste

**Product Use:** For use in dental adhesion/ bonding; 2 part system; base component.

**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

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## SECTION 2: HAZARDS IDENTIFICATION

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**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.

**Inhalation:**

Irritation may occur. Repeated and/or prolonged exposure can cause dizziness, headache and anesthetic effects.

**Ingestion:**

Possible irritation. 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.

**For Methacrylate Polymer:** Repeated exposure may cause allergic skin reactions.

**Carcinogenicity:**

Triethylene Glycol Dimethacrylate may contain trace amounts of substances known to the state of California to cause cancer and/or reproductive toxicity.

A Group 2A IARC designation has been given to silica crystalline.

None of the other listed components are known carcinogens.

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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| <u>COMPONENT:</u>                     | <u>CAS NO:</u> | <u>WT %:</u> |
|---------------------------------------|----------------|--------------|
| Bisphenol "A" Diglycidyl Methacrylate | 001565-94-2    | 10.0 – 30.0  |
| Triethylene Glycol Dimethacrylate     | 109-16-0       | 5.0 – 20.0   |
| Silicon Dioxide                       | 14808-60-7     | 25.0 – 70.0  |
| Methacrylate Polymer                  | N/A            | > 0.1        |
| Proprietary                           | -----          | >1.0 – 45.0  |

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**SECTION 4: FIRST AID MEASURES**

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**Eyes:**

Flush with copious amounts of water. Seek medical attention if symptoms persist.

**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 medical attention if symptoms persist.

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**Flammable/Explosive Limits:**

No Data

**Flash Point:**

No Data

**Extinguishing Media:**

Chemical Foam, CO<sub>2</sub>, Dry Chemical Powder, Water Spray. 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.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**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.

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**SECTION 7: HANDLING AND STORAGE**

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**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.

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## 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         |
| Silicon Dioxide                       | 14808-60-7  | NE                      | NE         |
| Methacrylate Polymer                  | N/A         | 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 and 2-Hydroxy Ethyl Methacrylate hazardous. Reference U.S. OSHA 29 § 1910.1200 or other appropriate governing standard.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### General description:

State: Paste  
Odor: Acrylate  
Color(s): Beige

### Chemical Properties:

| Designation:                            | Value:                  |
|---|-------------------------|
| Vapor Pressure                          | ND                      |
| Boiling Point<br>Freezing Point         | ND                      |
| Solubility in Water                     | Insoluble               |
| Viscosity                               | ND                      |
| Specific Gravity (H <sub>2</sub> O = 1) | >1.0 g/cc at 25°C/ 77°F |

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|                             |    |
|-----------------------------|----|
| 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.

**Incompatibility:**

High temperatures, visible light sources. Keep away from strong oxidizing agents and peroxides

**Hazardous polymerization:**

ND

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Toxicity Data:**

|   |                    |             |
|---|--------------------|-------------|
| <b>Bisphenol "A" Dimethacrylate:</b>      |                    |             |
| Oral (Rat)                                | LD <sub>50</sub> : | 3300 mg/kg  |
| Oral (mouse)                              | LD <sub>50</sub> : | 2500 mg/kg  |
| Oral (Rabbit)                             | LD <sub>50</sub> : | 2230 mg/kg  |
| Intraperitoneal (Rabbit)                  | LD <sub>50</sub> : | 150 mg/kg   |
| Dermal (Rabbit)<br>24-hour application    | LD <sub>50</sub> : | 3600 mg/kg  |
| <b>Silicon Dioxide:</b>                   |                    |             |
| Intravenously (Rat)                       | LD <sub>50</sub> : | 500 mg/kg   |
| <b>Triethylene Glycol Dimethacrylate:</b> |                    |             |
| Oral (Mouse)                              | LD <sub>50</sub> : | 10750 mg/kg |
| Oral (Rat)                                | LD <sub>50</sub> : | 10837 mg/kg |

**SECTION 12: ECOLOGICAL INFORMATION**

**General ecological information:**

Aquatic toxicity is possible, including physical damage or death to aquatic life; do not discharge into drains or the environment.

|                                      |                    |              |
|--------------------------------------|--------------------|--------------|
| <b>Bisphenol "A" Dimethacrylate:</b> |                    |              |
| Menidia menidia                      | LC <sub>50</sub> : | 9.4 mg/L/96h |
| Selenastrum capicomutum (algae)      | LC <sub>50</sub> : | 2.7 mg/L/96h |

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|   |                    |                    |
|---|--------------------|--------------------|
| Pimephales promelas (Flathead minnow)                               | LC <sub>50</sub> : | 4.6 mg/L/96h       |
| Skeletonema costatum (Diatom)                                       | EC <sub>50</sub> : | 1.0 mg/L/96h       |
| Mysiddopsis bahi (Mysid)  | LC <sub>50</sub> : | 1.1 mg/L/96h       |
| Daphnia magna (Water flea)  | EC <sub>50</sub> : | 10200 µg/L/96h     |
| Americamysis bahia (Opossum shrimp)                                 | LC <sub>50</sub> : | 1100µg/L/96h       |
| Mysidopsis bahia (Mysid shrimp, 6d old)                             | LC <sub>50</sub> : | 1.1 mg/L/96h       |
| Oryzias latipes (Medaka, high-eyes-ad.female)                       | LC <sub>50</sub> : | 8300 µg/L/72h      |
| Oryzias latipes (Medaka, high-eyes, eggs)<br>Inhibition of hatching | IC <sub>50</sub> : | 9.0 mg/L/96h       |
| Hydra vulgaris  | LC <sub>50</sub> : | 6.9 mg/L/96h       |
| Acartia tonsa (copepod 10-12 d. old)                                | LC <sub>50</sub> : | 3.4 – 5.0 mg/L/48h |
| Xiphophorus helleri (Swordfish Tail)                                | LC <sub>50</sub> : | 17.93 mg/L/96h     |
| Oncorhynchus mykiss (Rainbow Trout)                                 | LC <sub>50</sub> : | 3 – 5 mg/L/96h     |
| Brachydanio rerio   | LC <sub>50</sub> : | 9.9 mg/L/96h       |
| Cyprinodon variegates (Sheepshead minnow)                           | LC <sub>50</sub> : | 7.5 mg/L/96h       |
| Acartia tonsa (copepod)<br>Affected larval development rate         | EC <sub>50</sub> : | 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:

R21 – Harmful in contact with skin.

### 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 suitable gloves and eye/face protection.

## SECTION 16: OTHER INFORMATION

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*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.*