

SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: OptiBond XTR Adhesive
Product Use: Dental product: Bonding agent

Manufacturer: Kerr Corporation
1717 W. Collins Ave.
Orange, CA 92867-5422
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date of Preparation/Revision: February 13, 2019

Section 2. Hazards Identification

GHS Classification:

Flammable Liquids Category 2
Skin Irritation Category 2
Eye Irritation Category 2A
Skin Sensitization Category 1
Specific Target Organ Toxicity Single Exposure Category 3
Specific Target Organ Toxicity Repeated Exposure Category 1

Label Elements:

Danger!



Hazard Phrases

Highly flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness and dizziness.
Causes damage to organs through prolonged or repeated exposure.

Precautionary Phrases:

Keep away from open flames, sparks, heat, hot surfaces. – No smoking.
Use explosion-proof electrical/ventilating/lighting and all material-handling equipment.
Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe vapors.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information on Ingredients

| Component | CAS No. | Amount |
|---|------------|--------|
| Ethanol | 64-17-5 | 10-30% |
| 2-hydroxyethyl methacrylate | 868-77-9 | 10-30% |
| 2-hydroxy-1,3-propanediyl bismethacrylate | 1830-78-0 | 1-5% |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | 28961-43-5 | 1-5% |
| Disodium hexafluorosilicate | 16893-85-9 | 0.1-1% |

Section 4. First Aid Measures

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

Skin Contact: Flush thoroughly with water. Get medical attention if irritation or symptoms of exposure develop. Remove and launder contaminated clothing before re-use.

Eye Contact: Rinse thoroughly with water. Get medical attention if irritation occurs and persists.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Keep the victim calm and warm. Get immediate medical attention.

Most important symptoms and effects, acute and delayed: Causes serious eye irritation and skin irritation. May cause an allergic skin reaction. Inhalation may cause drowsiness, dizziness, and respiratory irritation. Ingestion and inhalation can cause central nervous system depression.

Indication of immediate medical attention and special treatment, if needed: None required under normal conditions of use.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media appropriate for the surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Combustion may produce carbon dioxide, carbon monoxide, nitrogen oxides, phosphorus oxides, halogenated compounds, and metal oxides.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored. Cool fire-exposed containers with water. Contain water used in firefighting from entering sewers or natural waterways.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Evacuate spill area and keep unprotected personnel away. Avoid contact with eyes, skin and clothing. Wear appropriate protective clothing and equipment. Do not breathe vapors.

Environmental Precautions: Avoid releases to the environment. Report spill as required by local and federal regulations.

Methods and Materials for Containment and Cleaning up: Prompt cleanup and removal are necessary. Absorb spills with an inert material and place in an appropriate waste disposal container.

Section 7. Handling and Storage

Precautions for Safe Handling: Prevent contact with eyes, skin and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke in the work area. Do not breathe vapors. Use with adequate ventilation. Remove and wash contaminated clothing before reuse.

Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, dry, well-ventilated area away from direct sunlight. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

| Chemical | Exposure Limit |
|---|------------------------|
| Ethanol | 1000 ppm TWA NIOSH REL |
| 2-hydroxyethyl methacrylate | None Established |
| 2-hydroxy-1,3-propanediyl bismethacrylate | None Established |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | None Established |

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| Disodium hexafluorosilicate | 2.5 mg/m ³ TWA ACGIH TLV |
|-----------------------------|-------------------------------------|

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, an approved respirator with particulate cartridges is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with applicable regulations and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Impervious gloves are suggested to prevent skin contact. Contact your glove supplier for selection assistance.

Eye Protection: Chemical safety goggles are recommended if contact is possible.

Skin Protection: Wear protective clothing as needed to avoid skin contact and contamination of personal clothing.

Hygiene measures: Suitable eye and skin washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

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|---|-------------------------|----------------------------------|--|
| Appearance: | Light yellow paste | Odor: | Fruity ester-like |
| Odor Threshold: | Not available | pH: | Not available |
| Melting/Freezing Point: | Not available | Boiling Point/Range: | Not available |
| Flash Point: | 18°C (64.4°F) (Ethanol) | Evaporation Rate: | Not available |
| Flammability: (Solid, Gas) | Not applicable | Flammability Limits: | LEL: Not available UEL: Not available |
| Vapor Pressure: | Not available | Vapor Density: | Not available |
| Relative Density: | 1.2 | Solubilities: | Partially soluble in water |
| Partition Coefficient: (N-Octanol/Water) | Not available | Autoignition Temperature: | Not available |
| Decomposition Temperature: | Not available | Viscosity: | Not available |

Section 10. Stability and Reactivity

Reactivity: The product is not expected to be reactive.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame).

Incompatible Materials: Oxidizing materials.

Hazardous decomposition products: None if stored normally.

Section 11. Toxicological Information**Potential Health Effects:**

Inhalation: Can cause central nervous system depression. May cause drowsiness, dizziness, and respiratory irritation.

Skin Contact: Causes skin irritation and may cause an allergic skin reaction.

Eye Contact: Causes serious eye irritation.

Ingestion: Swallowing can cause central nervous system depression.

Chronic Hazards: Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Skin Sensitization: No adverse effects expected. Components are not sensitizers.

Respiratory Sensitization: No data available. This product is not expected to cause respiratory sensitization.

Germ Cell Mutagenicity: None of the components have shown mutagenic activity in animal studies.

Carcinogen:

Ethanol is listed as "Carcinogenic to Humans" (Group 1) by IARC.

Disodium hexafluorosilicate is listed as "The Agent is not Classifiable as to its Carcinogenicity to Humans" (Group 3) by IARC.

None of the other components are listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Developmental / Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Specific Target Organ Toxicity (Single Exposure): Single exposure to ethanol, 2-hydroxyethyl methacrylate, and 2-hydroxy-1,3-propanediyl bismethacrylate can cause respiratory tract irritation. Single exposure to ethanol can also cause narcotic effects.

Specific Target Organ Toxicity (Repeated Exposure): Repeated exposure to ethanol may cause damage of the liver. Repeated exposure to disodium hexafluorosilicate can cause damage of the bones and teeth.

Aspiration Toxicity: Not an aspiration hazard.

Acute Toxicity Values:

Product ATE: 169.3 mg/L (Inhalation as vapors), 16930.5 mg/kg (Dermal), 4561.9 mg/kg (Oral)

Ethanol: LD50 Oral rat: 7060 mg/kg; LC50 Inhalation rat: 124.7 mg/L/4 hr

2-hydroxyethyl methacrylate: LD50 Oral rat: 4230 mg/kg

Propylidynetrimethanol, ethoxylated, esters with acrylic acid: LD50 Dermal rabbit: >13 g/kg

Disodium hexafluorosilicate: LD50 Oral rat: 125 mg/kg

Section 12. Ecological Information**Toxicity:**

Ethanol: 96 hr EC50 *Ulva pertusa* 17.921 mg/L; 48 hr EC50 *Daphnia magna*- 2000 µg/L;

48 hr LC50 Crustaceans 25.5 mg/L; 96 hr LC50 Oncorhynchus mykiss >10000 µg/L
2-hydroxyethyl methacrylate: 96 hr LC50 Pimephales promelas 227 mg/L

Persistence and degradability: Product is readily biodegradable.

Bioaccumulative Potential:

Ethanol: log P_{ow} -0.35, potential for bioaccumulative is low.

2-hydroxyethyl methacrylate: log P_{ow} 0.42, potential for bioaccumulative is low.

Propylidynetrimethanol, ethoxylated, esters with acrylic acid: log P_{ow} 2.89, potential for bioaccumulative is low.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

Section 13. Disposal Considerations

Disposal: For unused product, dispose of in accordance with Federal and local regulations.

Container Disposal: Dispose of empty container in accordance with Federal and local regulations.

Section 14. Transport Information

| | UN Number | UN Proper Shipping Name | Hazard Class(s) | Packing Group | Environmental Hazards |
|-------------------|-----------|-------------------------|-----------------|---------------|-----------------------|
| US DOT | UN1170 | Ethanol solution | 3 | II | None |
| EU ADR/RID | UN1170 | Ethanol solution | 3 | II | None |
| IMDG | UN1170 | Ethanol solution | 3 | II | None |
| IATA/ICAO | UN1170 | Ethanol solution | 3 | II | None |

Special Precautions for User: None identified

Transport in Bulk According to Annex II MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form.

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Refer to Section 2 for OSHA Hazard Classification.

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canada CEPA: All of the components of this material are listed on the DSL or exempt.

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| Section 16. Other Information |
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Effective Date: February 13, 2019

Supersedes Date: April 2, 2015

Revision Summary: All Sections – New SDS format

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