

SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: OptiBond™ FL Adhesive

Product Use: Dental product: Adhesive

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: April 24, 2019

Section 2. Hazards Identification

GHS Classification:

Acute Toxicity Category 4

Skin Corrosion Category 2

Serious Eye Damage/Eye Irritation Category 2A

Specific Target Organ Toxicity Single Exposure Category 3

Specific Target Organ Toxicity Repeated Exposure Category 1

Label Elements:

Danger!



Hazard Phrases

Harmful if swallowed.

Causes serious eye irritation.

Causes skin irritation.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

Precautionary Phrases:

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.

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

Get medical attention if you feel unwell.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

IF ON SKIN (or hair): Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. 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 or 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 attention.

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
Glass, oxide, chemicals	65997-17-3	30-60%
2-hydroxyethyl methacrylate	868-77-9	10-30%
Ytterbium trifluoride	13760-80-0	10-30%
3-trimethoxysilylpropyl methacrylate	2530-85-0	5-10%
2-hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	5-10%
Alkali fluorosilicates (Na)	16893-85-9	1-5%

Section 4. First Aid Measures

Inhalation: Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

Skin Contact: Immediately flush skin thoroughly with plenty of water for several minutes. Get medical attention if irritation or rash occurs. Launder clothing before re-use.

Eye Contact: Immediately flush eyes with large quantities of water for several minutes. Get medical attention if symptoms occur.

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 respiratory irritation. Product is harmful if swallowed.

Indication of immediate medical attention and special treatment, if needed: Immediate medical attention is not required.

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, 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. Contain water used in firefighting from entering sewers or natural waterways.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Avoid contact with eyes, skin and clothing. Wear appropriate protective clothing and equipment. Do not breathe dust or 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: Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

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 dust or 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
Glass, oxide, chemicals	10 mg/m ³ TWA ACGIH TLV (total) 5 mg/m ³ TWA ACGIH TLV (inhalable fraction)
2-hydroxyethyl methacrylate	None Established
Ytterbium trifluoride	2.5 mg/m ³ TWA ACGIH TLV
3-trimethoxysilylpropyl methacrylate	None Established
2-hydroxy-1,3-propanediyl bismethacrylate	None Established
Alkali fluorosilicates (Na)	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: In operations where exposure levels are exceeded, an approved dust/mist respirator or supplied air respirator should be used. Equipment selection depends on contaminant type and concentration. Select in accordance with applicable regulations and good industrial hygiene practice.

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

Appearance:	Light yellow liquid	Odor:	Fruity
Odor Threshold:	Not available	pH:	5
Melting/Freezing Point:	Not available	Boiling Point/Range:	Not available
Flash Point:	Not available	Evaporation Rate:	Not available
Flammability: (Solid, Gas)	Not available	Flammability Limits:	LEL: Not available UEL: Not available
Vapor Pressure:	Not available	Vapor Density:	Not available
Relative Density:	1.1	Solubilities:	Insoluble 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 heat and light.

Incompatible Materials: Oxidizing materials, reducing materials, peroxide, and amines.

Hazardous decomposition products: None if stored normally.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: May cause respiratory irritation.

Skin Contact: Direct contact causes skin irritation.

Eye Contact: Direct contact causes serious eye irritation.

Ingestion: Harmful if swallowed. Ingestion may be irritating to mouth, throat and stomach.

Chronic Hazards: Causes damage to organs through prolonged or repeated exposure.

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: None of the 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 2-hydroxyethyl methacrylate and 2-hydroxy-1,3-propanediyl bismethacrylate may cause respiratory tract irritation.

Specific Target Organ Toxicity (Repeated Exposure): Repeated exposure to Alkali fluorosilicates (Na) may cause damage to bones and teeth.

Aspiration Toxicity: Not an aspiration hazard.

Acute Toxicity Values:

Product ATE: 1125.2 mg/kg (Oral); 3473.7 mg/kg (Dermal); 34.74 mg/L (Inhalation as vapors)
2-hydroxyethyl methacrylate: LD50 Oral rat: 5050 mg/kg; LD50 Dermal rabbit: >3000 mg/kg
3-trimethoxysilylpropyl methacrylate: LD50 Oral rat: 23504 mg/kg; LD50 Dermal rat: >2000 mg/kg
Alkali fluorosilicates (Na): LD50 Oral rat: 125 mg/kg

Section 12. Ecological Information

Toxicity:

2-hydroxyethyl methacrylate: 96 hr LC50 Pimephales promelas 227 mg/L;
Alkali fluorosilicates (Na): 96 hr LC50 Lepomis macrochirus 49 mg/L

This product is classified as toxic to the aquatic environment. Releases to the environment should be avoided.

Persistence and degradability: Product is readily biodegradable.

Bioaccumulative Potential:

2-hydroxyethyl methacrylate has a BCF of 1.3 – 1.5, log P_{ow} 0.42, potential for bioaccumulative is low.
3-trimethoxysilylpropyl methacrylate: log P_{ow} 2.1, 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	None	Not Regulated	None	None	None
EU ADR/RID	None	Not Regulated	None	None	None
IMDG	None	Not Regulated	None	None	None
IATA/ICAO	None	Not Regulated	None	None	None

Special Precautions for User: Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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.

Section 16. Other Information

Effective Date: April 24, 2019

Supersedes Date: July 16, 2014

Revision Summary: All Sections – New SDS format

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