

## SAFETY DATA SHEET

### Section 1. Product And Company Identification

**Product Name:** Vertise Flow

**Product Use:** Dental product: Composite

**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 20, 2019

### Section 2. Hazards Identification

**GHS Classification:**

Skin Irritation Category 2

Eye Irritation Category 2

Skin Sensitization Category 1

**Label Elements:**

Warning!



**Hazard Phrases**

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

**Precautionary Phrases:**

Avoid breathing dust and vapors.

Wash hands thoroughly after handling.

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

Wear eye protection and protective gloves.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

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.

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

### Section 3. Composition/Information on Ingredients

Component	CAS No.	Amount
Ytterbium trifluoride	13760-80-0	5-10%
2-hydroxyethyl methacrylate	868-77-9	5-10%
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	72869-86-4	5-10%
2-hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	1-5%
Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]-	41637-38-1	1-5%

### Section 4. First Aid Measures

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Flush skin thoroughly with water for several minutes. Get medical attention if irritation or rash occurs. Launder clothing before re-use.

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get medical attention if irritation occurs and persists.

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious). Call a POISON CENTER or doctor if you feel unwell.

**Most important symptoms and effects, acute and delayed:** Causes moderate skin irritation and serious eye irritation. Direct contact may cause an allergic skin reaction.

**Indication of immediate medical attention and special treatment, if needed:** Treat symptomatically.

### 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. Avoid breathing dust and vapors from dried paste.

**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 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
Ytterbium trifluoride	2.5 mg/m <sup>3</sup> TWA ACGIH TLV
2-hydroxyethyl methacrylate	None Established
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	None Established
2-hydroxy-1,3-propanediyl bismethacrylate	None Established
Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]-	None Established

**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

<b>Appearance:</b>	Various colored paste	<b>Odor:</b>	Fruity ester-like
<b>Odor Threshold:</b>	Not available	<b>pH:</b>	Not available
<b>Melting/Freezing Point:</b>	Not available	<b>Boiling Point/Range:</b>	Not available
<b>Flash Point:</b>	Not flammable	<b>Evaporation Rate:</b>	Not available
<b>Flammability: (Solid, Gas)</b>	Not applicable	<b>Flammability Limits:</b>	LEL: Not applicable UEL: Not applicable
<b>Vapor Pressure:</b>	Not available	<b>Vapor Density:</b>	Not available
<b>Relative Density:</b>	1.9	<b>Solubilities:</b>	Insoluble in water
<b>Partition Coefficient: (N-Octanol/Water)</b>	Not available	<b>Autoignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available	<b>Viscosity:</b>	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 direct sunlight. Heat can cause polymerization with rapid release of energy.

**Incompatible Materials:** Oxidizing materials, reducing materials, acids, peroxides, and amines.

**Hazardous decomposition products:** None if stored normally.

## Section 11. Toxicological Information

### Potential Health Effects:

**Inhalation:** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Eye Contact:** Causes serious eye irritation.

**Ingestion:** Swallowing may be irritating to mouth, throat and stomach.

**Chronic Hazards:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Skin corrosion/irritation:** This product is not expected to cause skin irritation or corrosion.

**Eye damage/ irritation:** This product is not expected to cause eye irritation or corrosion.

**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):** May cause irritation to the respiratory tract by prolonged exposure.

**Specific Target Organ Toxicity (Repeated Exposure):** No data available.

**Aspiration Toxicity:** Not an aspiration hazard.

**Acute Toxicity Values:**

Product ATE: 5433.8 mg/kg (Oral)

2-hydroxyethyl methacrylate: LD50 Oral rat: 5050 mg/kg; LD50 Dermal rabbit: >3000 mg/kg

Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-]: LD50 Oral rat: > 2000 mg/kg; LD50 Dermal rat: > 2000 mg/kg

## Section 12. Ecological Information

**Toxicity:**

2-hydroxyethyl methacrylate: 96 hr LC50 Pimephales promelas 227 mg/L;

48 hr EC50 Daphnia magna >280 mg/L; 72 hr IC50 Algae 836 mg/L

Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-]: 96 hr LD50 fish > 100 mg/L; 48 hr EC50 Daphnia magna > 100 mg/L; 72 hr Algae > 100 mg/L

**Persistence and degradability:** 2-hydroxyethyl methacrylate is readily biodegradable.

**Bioaccumulative Potential:**

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

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate: log  $P_{ow}$  3, potential for bioaccumulative is low.

Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-] has a BCF of 2372 log  $P_{ow}$  3.43 to 5.62, potential for bioaccumulative is high.

**Mobility in Soil:** Slightly soluble.

**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
<b>US DOT</b>	None	Not Regulated	None	None	None
<b>EU ADR/RID</b>	None	Not Regulated	None	None	None
<b>IMDG</b>	None	Not Regulated	None	None	None
<b>IATA/ICAO</b>	None	Not Regulated	None	None	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.

**Section 16. Other Information**

**Effective Date:** February 20, 2019

**Supersedes Date:** December 8, 2014

**Revision Summary:** All Sections – New SDS format

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