

## SAFETY DATA SHEET

### Section 1. Product And Company Identification

**Product Name:** OptiBond™ Solo Plus

**Product Use:** Dental product

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

Australian Supplier: **Kerr Australia Pty Limited**  
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North Ryde, NSW 2113  
Australia  
Telephone no.: 1 800 643 603  
Email general queries: [kavokerr.orders@kavokerr.com](mailto:kavokerr.orders@kavokerr.com)  
Email technical queries: [safety@kavokerr.com](mailto:safety@kavokerr.com)

**Information Phone Number:** 1-800-KERR-123 (in the US)

**Emergency Phone Number:** Poisons Information Helpline: 131126 (24 hours)

**SDS Date of Preparation/Revision:** February 18, 2020

### Section 2. Hazards Identification

**GHS Classification:**

Flammable Liquid Category 2

Skin Irritation Category 2

Eye Irritation Category 2A

Skin Sensitization Category 1

**Label Elements:**

**Danger!**



**Hazard Phrases**

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.  
H336 May cause drowsiness and dizziness.  
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Phrases

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P241 Use explosion-proof electrical/ventilating/lighting/and all material-handling equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe vapor.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P361 + P352 IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of soap and water.  
P333 + P313 If skin irritation or a rash occurs: Get medical attention.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 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%   |
| Alkali fluorosilicates(Na)                | 16893-85-9 | 0.1-1% |

**Section 4. First Aid Measures**

**Inhalation:** Move to fresh air if symptoms occur and seek medical attention if symptoms persist.

**Skin Contact:** Take off contaminated clothing. Rinse skin with plenty of water. Get medical attention if irritation develops and persists.

**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, both acute and delayed:** Causes serious eye irritation and skin irritation. May cause an allergic skin reaction. Can cause central nervous system depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. If swallowed, may be irritating to mouth, throat, and stomach.

**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 media appropriate for 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 dust or vapors.

**Environmental Precautions:** Avoid release 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. For small spills, take up in non-combustible absorbent material and shovel into container for disposal. For large spills, take up with pump or vacuum and finish with dry chemical absorbent.

## 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 vapor. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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                    |
| Alkali fluorosilicates(Na)                | 2.5 mg/m <sup>3</sup> 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 a respirable dust cartridge or supplied air respirator 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 such as butyl rubber or nitrile are recommended for operations which may result in prolonged or repeated skin contact.

**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 wash and washing facilities should be available in the work area.

## Section 9. Physical and Chemical Properties

|   |                            |                                  |  |
|---|----------------------------|----------------------------------|--|
| <b>Appearance:</b>                              | Light yellow liquid        | <b>Odor:</b>                     | Fruity                                     |
| <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>                             | 18°C (64.4°F)<br>(Ethanol) | <b>Evaporation Rate:</b>         | Not available                              |
| <b>Flammability: (Solid, Gas)</b>               | Not applicable             | <b>Flammability Limits:</b>      | LEL: Not applicable<br>UEL: Not applicable |
| <b>Vapor Pressure:</b>                          | Not available              | <b>Vapor Density:</b>            | Not available                              |
| <b>Relative Density:</b>                        | 1.25                       | <b>Solubilities:</b>             | Partially soluble 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, sparks and 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 if inhaled. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

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

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

**Ingestion:** Swallowing can cause central nervous system depression, irritating to mouth, throat and stomach.

**Chronic Hazards:** None expected.

**Skin corrosion/irritation:** This product is expected to cause skin irritation.

**Eye damage/ irritation:** This product is expected to cause eye irritation.

**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:** This product is not expected to cause mutagenicity.

**Carcinogen:** None of the components are listed as a carcinogen or potential carcinogen by IARC, NTP or the EU CLP.

**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 may cause respiratory tract irritation. Single exposure to ethanol may cause narcotic effects.

**Specific Target Organ Toxicity (Repeated Exposure):** Repeated exposure to ethanol may affect liver. Repeated exposure to alkali fluorosilicates(Na) may affect bones and teeth.

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

### Acute Toxicity Values:

Ethanol: LD50 Oral rat: 10470 mg/kg; LD50 Dermal rat: 20 mL/kg; LC50 Inhalation rat: 124 mg/L/4 hr

2-hydroxyethyl methacrylate: LD50 Oral rat: 5564 mg/kg; LD50 Dermal rabbit: >5000 mg/kg

Alkali fluorosilicates(Na): LD50 Oral rat: 125 mg/kg

**Section 12. Ecological Information**

**Toxicity:**

Ethanol: 96 hr LC50 Pimephales promelas >100 mg/L; 48 hr EC50 Daphnia magna 9268 - 14221 mg/L  
2-hydroxyethyl methacrylate: 96 hr LC50 Oryzias latipes >100 mg/L; 72 hr EC50 Green algae 836 mg/L;  
48 hr Daphnia magna 380 mg/L

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

**Bioaccumulative Potential:**

Ethanol: log P<sub>ow</sub> -0.35, potential of bioaccumulative is low  
2-hydroxyethyl methacrylate has a BCF of 1.3 – 1.5, log P<sub>ow</sub> 0.47, potential of bioaccumulative is low.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** No data available.

**Section 13. Disposal Considerations**

**Solution Disposal:** Discharge residual and unused solutions in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.

**Container Disposal:** Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard 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>ADG</b>       | UN1170    | Ethanol solution        | 3               | II            | None                  |
| <b>IMDG</b>      | UN1170    | Ethanol solution        | 3               | II            | None                  |
| <b>IATA/ICAO</b> | UN1170    | Ethanol solution        | 3               | II            | None                  |

**Special Precautions for User:** None identified

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

**Hazchem Code:** Not applicable.

**Section 15. Regulatory Information**

**Montreal Protocol (Ozone Depleting Substances):** None present

**The Stockholm Convention (Persistent Organic Pollutants):** None present

**The Rotterdam Convention (Prior Informed Consent):** None present

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP):** None present

**Australian AICS:** Not determined.



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| <b>Section 16. Other Information</b> |
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**Effective Date:** February 18, 2020

**Supersedes Date:** February 20, 2017

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

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