

### 1. Identification

<b>Product name:</b>	OptiBond® Universal
<b>Recommended use:</b>	Bonding agent
<b>Restrictions on use:</b>	None known
<b>Supplier:</b>	Kerr Corporation 1717 W. Collins Ave. Orange, CA 92867-5422 - U.S.A. T 1-800-841-1428 (Customer Service)
<b>Emergency number:</b>	(Chemical Spills, Leaks, Fire, Exposure or Accident only): CHEMTREC 1-800-424-9300 (in the US), 1-703-527-3887 (Outside the US)
<b>Issue date:</b>	10/07/2020

### 2. Hazard(s) identification

#### Classification:

Physical hazards	Health hazards
Flammable liquids, Category 2	Skin corrosion/irritation, Category 2 Eye irritation, Category 2 Skin sensitisation, Category 1 Specific target organ toxicity — Single exposure, Category 3, Narcosis

#### GHS US labelling:

Danger!



Hazard statements (GHS US)	Precautionary statements (GHS US)
H225 - Highly flammable liquid and vapour. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment. P241 - Use explosion-proof electrical, lighting, ventilating equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing mist, vapors. P264 - Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.  
 P280 - Wear eye protection, protective gloves, protective clothing.  
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P312 - Call a poison center or doctor if you feel unwell.  
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P363 - Wash contaminated clothing before reuse.  
 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.  
 P370+P378 - In case of fire: Use Water fog, alcohol resistant foam, carbon dioxide (CO<sub>2</sub>), dry extinguishing powder to extinguish.  
 P403+P235 - Store in a well-ventilated place. Keep cool.  
 P405 - Store locked up.  
 P501 - Dispose of contents or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 3: Composition/information on ingredients

Component	CAS-No.	Amount (%)
Acetone	67-64-1	30 - 60
2-hydroxyethyl methacrylate	868-77-9	7 - 13
Ethanol	64-17-5	5 - 10
Glyceryl dimethacrylate	1830-78-0	1 - 5

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

### 4. First-aid measures

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur. Move the affected person to the fresh air.

**Skin:** Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**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.

**Ingestion:** Rinse mouth thoroughly with water. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

**Symptoms/effects:** May cause moderate irritation to the eyes. May cause irritation to skin. May cause an allergic skin reaction. Inhalation of vapours may cause respiratory irritation. Inhalation may affect the nervous system causing headache, possibly dizziness, nausea, weakness, loss of coordination and unconsciousness.

**Immediate medical attention and special treatment, if necessary:** Not required.

#### 5. Fire-fighting measures

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.

**Unsuitable extinguishing media:** None.

**Fire hazard:** Highly flammable liquid and vapour. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. On combustion, forms: carbon oxides (CO and CO<sub>2</sub>). Phosphorus oxides.

**Special protective equipment and precautions for fire-fighters:** In case of fire: stop leak if safe to do so. Cool down the containers exposed to heat with a water spray. Do not attempt to take action without suitable protective equipment.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Remove ignition sources. Avoid contact with eyes, skin and clothing. Wear suitable protective clothing. Ventilate area.

**Methods and material for containment and cleaning up:** Stop leak if safe to do so. Use non-sparking tools. Take up liquid spill into absorbent material. Do not flush down sewers. Notify authorities if product enters sewers or public waters. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

#### 7. Handling and storage

**Precautions for safe handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin and clothing. Wear personal protective equipment. Avoid breathing mist, vapors. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Flammable vapours may accumulate in the container. Refer to product label for additional information on use and handling.

**Storage conditions:** Store in dry, cool, well-ventilated area. Keep away from heat and direct sunlight. Store away from strong oxidizers, strong bases, strong acids. Keep container closed when not in use.

#### 8. Exposure controls/personal protection

Exposure guidelines:	
Glyceryl dimethacrylate	None established.
2-hydroxyethyl methacrylate	None established.
Ethanol	1900 mg/m <sup>3</sup> TWA OSHA PEL; 1000 ppm TWA OSHA PEL; 1000 ppm STEL ACGIH TLV;
Acetone	2400 mg/m <sup>3</sup> TWA OSHA PEL; 1000 ppm TWA OSHA PEL; 250 ppm TWA ACGIH TLV; 500 ppm STEL ACGIH TLV;

**Appropriate engineering controls:** Ensure good ventilation of the work station. No particular/specific measures required.

**Environmental exposure controls:** Avoid release to the environment.

**Personal protective equipment:**

**Hand protection:** Wear impervious gloves.

**Eye protection:** Chemical goggles

**Skin and body protection:** Wear suitable protective clothing

**Respiratory protection:** No respiratory protection needed under normal use conditions. In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**9. Physical and chemical properties**

**Appearance:** Liquid.

<b>Physical state</b>	: Liquid	<b>Solubility</b>	: Partially soluble.
<b>Colour</b>	: Light yellow	<b>Log Pow</b>	: No data available
<b>Odour</b>	: Fruity	<b>Auto-ignition temperature</b>	: Not applicable
<b>Odour threshold</b>	: No data available	<b>Decomposition temperature</b>	: No data available
<b>pH</b>	: No data available	<b>Viscosity, kinematic</b>	: Not applicable
<b>Melting point</b>	: Not applicable	<b>Viscosity, dynamic</b>	: No data available
<b>Freezing point</b>	: Not applicable	<b>Explosive limits</b>	: Lower explosive limit (LEL): 2.5 vol % Acetone Upper explosive limit (UEL): 19 vol % Ethanol
<b>Boiling point</b>	: 56.08 °C Acetone (132.94 °F)	<b>Explosive properties</b>	: No data available
<b>Flash point</b>	: < 12.78 °C (closed cup) (55 °F)	<b>Oxidising properties</b>	: No data available
<b>Relative evaporation rate (butylacetate=1)</b>	: No data available		
<b>Flammability (solid, gas)</b>	: Not applicable.		
<b>Vapour pressure</b>	: No data available		
<b>Relative vapour density at 20 °C</b>	: No data available		
<b>Relative density</b>	: No data available		

No additional information available

**10. Stability and reactivity**

**Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use. Hazardous polymerization may occur if exposed to high temperature.

**Conditions to avoid:** Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible materials** : Oxidizing agents, reducing agents, acids, bases.

**Hazardous decomposition products:** Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Phosphorus oxides.

**11. Toxicological information**

**Inhalation:** May cause minor irritation to the respiratory tract and to other mucous membranes. High concentration of vapours may induce: headache, nausea, dizziness.

**Skin:** May cause moderate irritation. May cause an allergic skin reaction.

**Eyes:** May cause moderate irritation, including burning sensation, tearing, redness or swelling.

**Ingestion:** May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic symptoms:** None known.

<b>Carcinogenicity:</b>	Not classified
Glyceryl dimethacrylate:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
2-hydroxyethyl methacrylate:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Ethanol:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Acetone:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
<b>Germ cell mutagenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified

**Numerical measures of toxicity:**

**The following are the toxicity values for the components:**

Glyceryl dimethacrylate:	No data available
2-hydroxyethyl methacrylate:	Oral rat LD50- 5564 mg/kg bodyweight; Dermal rabbit LD50- > 5000 mg/kg bodyweight;
Ethanol:	Oral rat LD50- ≈ 10470 mg/kg;
Acetone:	Oral rat LD50- 5800 mg/kg bodyweight; Inhalation rat LC50- 76 mg/l;
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	May cause an allergic skin reaction.
<b>STOT-single exposure</b>	May cause drowsiness or dizziness.
<b>STOT-repeated exposure</b>	Not classified

## 12. Ecological information

**Ecology - general:** The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

**Ecotoxicity:**

2-hydroxyethyl methacrylate	100 mg/L Fish LC50; 380 mg/L Daphnia EC50
Ethanol	14.2 g/L Fish LC50; 100 mg/L Daphnia EC50

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects:**

No data available

**13. Disposal considerations**

**Regional legislation (waste):** Dispose of in accordance with applicable federal, state, and local regulations.  
**Additional information:** Flammable vapours may accumulate in the container.

**14. Transport information**

**Department of Transportation (DOT)**

**Proper Shipping Name (DOT)** : Adhesives (Acetone ; Ethanol; ethyl alcohol)  
**UN-No.(DOT)** : UN1133  
**Class (DOT)** : 3  
**Packing group (DOT)** : II  
**Hazard labels (DOT)** : Flammable liquid

**Transport by sea**

**Proper Shipping Name (IMDG)** : ADHESIVES (Acetone ; Ethanol; ethyl alcohol)  
**UN-No. (IMDG)** : 1133  
**Class (IMDG)** : 3  
**Packing group (IMDG)** : II

**Air transport**

**Proper Shipping Name (IATA)** : Adhesives (Acetone ; Ethanol; ethyl alcohol)  
**UN-No. (IATA)** : 1133  
**Class (IATA)** : 3  
**Packing group (IATA)** : II

**15. Regulatory information**

**SARA Section 313 - Emission Reporting:** Not subject to reporting requirements of the United States SARA Section 313

**CERCLA Section 103:**

Acetone	67-64-1	5000 lb
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**SARA 302:**

Not applicable

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

**California Proposition 65:**

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**TSCA:** All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

**INTERNATIONAL INVENTORIES**

**Australia AICS:** One or more ingredient(s) are not listed  
**Canada DSL:** One or more ingredient(s) are not listed  
**China IECSC:** One or more ingredient(s) are not listed

**EU EINECS:** One or more ingredient(s) are not listed  
**Japan ENCS:** One or more ingredient(s) are not listed  
**Korea KECL:** One or more ingredient(s) are not listed  
**New Zealand:** One or more ingredient(s) are not listed  
**Philippines PICCS:** One or more ingredient(s) are not listed  
**Taiwan CSNN** One or more ingredient(s) are not listed

**16. Other information**

Revision date : 10/07/2020

<b>NFPA</b>	
NFPA health hazard:	2
NFPA fire hazard:	3
NFPA reactivity:	0

**NOTICE**

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, KERR Corporation makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.