

1. Identification

Product name: OptiBond Universal 360
Recommended use: Dental product
Restrictions on use: Restricted to professional users
Manufacturer: Kerr Corporation
 1717 W. Collins Ave.
 Orange, CA 92867-5422
 T 1-800-841-1428
safety@envistaco.com
Emergency number: (Chemical Spills, Leaks, Fire, Exposure or Accident only):
 CHEMTREC 1-800-424-9300 (in the US), 1-703-527-3887 (Outside the US)
Issue date: 10/13/2023

2. Hazard(s) identification

Classification:

Physical hazards	Health hazards
Flammable liquids Category 2	Skin corrosion/irritation Category 2 Eye irritation Category 2 Skin sensitization, Category 1 Reproductive toxicity Category 1B

GHS US labeling:

Danger!



Hazard statements (GHS US)	Precautionary statements (GHS US)
H225 - Highly flammable liquid and vapor H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H360 - May damage fertility or the unborn child (oral)	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. 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.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear eye protection, protective gloves, protective clothing.
 P308+P313 - If exposed or concerned: Get medical advice/attention.
 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 alcohol resistant foam, dry extinguishing powder, carbon dioxide (CO₂) to extinguish.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.
 P501 - Dispose of contents/container to a 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 (%)
Ethanol	64-17-5	20 – 30
2-Hydroxyethyl methacrylate	868-77-9	12 – 19
10-Methacryloyl-oxydecyl-dihydrogenphosphate	85590-00-7	3 – 7
Silicon dioxide	7631-86-9	0 – 5
Glyceryl dimethacrylate	1830-78-0	1 – 5
Acetone	67-64-1	0.5 – 3
2-(Phosphonooxy)propane-1,3-diylbismethacrylate	67829-13-4	0.5 - 1.5
Ethyl 4-dimethylaminobenzoate	10287-53-3	0.5 – 1.5

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

4. First-aid measures

Inhalation: Move the affected person to fresh air. Call a poison center or a doctor if you feel unwell.

Skin: Rinse skin with water/shower. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

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: Call a poison center or a doctor if you feel unwell.

Symptoms/effects: May cause moderate irritation to the eyes. Causes skin irritation. May cause an allergic skin reaction. Inhalation of vapors may cause respiratory irritation. This product may cause reproductive harm and/or developmental effects.

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

5. Fire-fighting measures

Suitable extinguishing media: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media: None.

Fire hazard: Highly flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Combustion products may include the following: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), nitrogen oxides (NO, NO₂, etc.).

Special protective equipment and precautions for fire-fighters: Eliminate all ignition sources if safe to do so. Cool down the containers exposed to heat with a water spray. Prevent runoff from entering water courses, sewers and basements. Do not attempt to take action without suitable protective equipment. Fight fire with normal precautions from a reasonable distance.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Eliminate ignition sources. Avoid contact with eyes, skin and clothing. Wear suitable protective clothing. Do not breathe vapors. Ventilate area.

Methods and material for containment and cleaning up: Stop leak if safe to do so. Do not touch or walk on the spilled product. Take up liquid spill into absorbent material. Use non-sparking tools. 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. Wash hands with water and soap. Avoid breathing mist, vapors. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use.

Storage conditions: Store in dry, cool, well-ventilated area. Keep container closed when not in use.

8. Exposure controls/personal protection

Exposure guidelines:	
2-(Phosphonoxy)propane-1,3-diylbismethacrylate	None established.
10-Methacryloyl-oxydecyl-dihydrogenphosphate	None established.
2-Hydroxyethyl methacrylate	None established.
Glyceryl dimethacrylate	None established.
Acetone	2400 mg/m ³ TWA OSHA PEL; 1000 ppm TWA OSHA PEL; 250 ppm TWA ACGIH TLV; 500 ppm STEL ACGIH TLV;
Ethanol	1900 mg/m ³ TWA OSHA PEL; 1000 ppm TWA OSHA PEL; 1000 ppm STEL ACGIH TLV;
Ethyl 4-dimethylaminobenzoate	None established.
Silicon dioxide	20 mppcf TWA OSHA PEL;

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

Environmental exposure controls: Avoid release to the environment.

Personal protective equipment:

Hand protection: Wear impervious gloves. Consult supplier for specific recommendations.

Eye protection: Wear safety goggles or other eye protection to prevent eye contact.

Skin and body protection: Wear suitable protective clothing

Respiratory protection: 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.

Thermal hazard protection: Not applicable.

9. Physical and chemical properties

Appearance: Light yellow. Liquid.

Physical state	: Liquid	Solubility	: No data available
Color	: Light yellow	Partition coefficient n-octanol/water (Log Pow)	: No data available
Odor	: Fruity Ester	Auto-ignition temperature	: No data available
Odor threshold	: No data available	Decomposition temperature	: No data available
pH	: No data available	Viscosity, kinematic	: No data available
Melting point	: Not applicable	Viscosity, dynamic	: No data available
Freezing point	: No available data	Explosion limits	: No data available
Boiling point	: No data available	Explosive properties	: No data available
Flash point	: No data available	Oxidizing properties	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available		
Flammability	: Not applicable.		
Vapor pressure	: No data available		
Relative vapor density at 20°C	: No data available		
Relative density	: 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.

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

Incompatible materials: Keep away from oxidizers, strong acids and strong bases.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Inhalation: May cause irritation to the respiratory tract.

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: This product may cause reproductive harm and/or developmental effects.

Carcinogenicity:	Not classified
2-(Phosphonoxy)propane-1,3-diylbismethacrylate:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
10-Methacryloyl-oxydecyl-dihydrogenphosphate:	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.
Glyceryl dimethacrylate:	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.
Ethanol:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Ethyl 4-dimethylaminobenzoate:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Silicon dioxide:	IARC 3 - Not classifiable;
Germ cell mutagenicity:	Not classified
Reproductive toxicity:	May damage fertility or the unborn child (oral).
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Numerical measures of toxicity:

The following are the toxicity values for the components:

2-(Phosphonoxy)propane-1,3-diylbismethacrylate	No data available
10-Methacryloyl-oxydecyl-dihydrogenphosphate	No data available
2-Hydroxyethyl methacrylate	5564 mg/kg bodyweight LD50 oral rat; > 5000 mg/kg bodyweight LD50 dermal rabbit
Glyceryl dimethacrylate	No data available
Acetone	5800 mg/kg LD50 oral rat; 76 mg/l LC50 Inhalation - Rat
Ethanol	8300 mg/kg bodyweight LD50 oral; 15010 mg/kg bodyweight LD50 oral rat; ≈ 116.9 mg/l/4h LC50 Inhalation - Rat (Vapours)

Ethyl 4-dimethylaminobenzoate > 2000 mg/kg LD50 oral rat; > 2000 mg/kg LD50 dermal rat

Silicon dioxide No data available

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

12. Ecological information

Ecology - general: Harmful to aquatic life with long lasting effects.

Ecotoxicity:

2-Hydroxyethyl methacrylate	> 100 mg/l <i>Oryzias latipes</i> (Ricefish) LC50 - Fish [1]; 380 mg/l <i>Daphnia magna</i> (Water flea) EC50 - Crustacea [1]; 836 mg/l <i>Pseudokirchneriella subcapitata</i> EC50 72h - Algae [1]; 24.1 mg/l <i>Daphnia magna</i> (Water flea) NOEC (chronic)
Acetone	≥ 79 mg/l <i>Daphnia magna</i> (Water flea) NOEC (chronic)
Ethanol	14.2 g/l <i>Pimephales promelas</i> (Fathead minnow) LC50 - Fish [1]; > 100 mg/l EC50 - Crustacea [1]; 9.6 mg/l <i>Daphnia magna</i> (Water flea) NOEC (chronic)
Ethyl 4-dimethylaminobenzoate	1.9 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) LC50 - Fish [1]; 2.8 mg/l <i>Pseudokirchneriella subcapitata</i> ErC50 algae; 4.5 mg/l <i>Daphnia magna</i> (Water flea) EC50 - Crustacea [1]

Persistence and degradability:	No data available
Ethanol:	Readily biodegradable.
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.

14. Transport information

Department of Transportation (DOT)

Proper Shipping Name (DOT)	: Flammable liquids, n.o.s. (Ethanol ; Acetone)
UN-No.(DOT)	: UN1993
Class (DOT)	: 3
Packing group (DOT)	: II
Hazard labels (DOT)	: Flammable liquid

Transport by sea

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S. (Ethanol ; Acetone)
UN-No. (IMDG) : 1993
Class (IMDG) : 3
Packing group (IMDG) : II

Air transport

Proper Shipping Name (IATA) : Flammable liquid, n.o.s. (Ethanol ; Acetone)
UN-No. (IATA) : 1993
Class (IATA) : 3
Packing group (IATA) : II

15. Regulatory information**SARA Section 313 - Emission Reporting:**

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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: One or more components may not be listed on the TSCA inventory. Only R&D activities may be carried out with this product and such activities must be performed by or under the direction of a technically qualified individual as defined in 40CFR 720.36.

16. Other information

Issue date : 10/13/2023

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.