

Material Safety Data Sheet

OPTIBOND XTR PRIMER

SECTION 1

Product & Company identification

Product name

OPTIBOND XTR PRIMER

Uses/Application:

Dental adhesive.

Manufacturer:

KERR CORPORATION

1717 West Collins Avenue, Orange, CA 92867-5422

Telephone: 1-800-KERR-123

24- Hour Emergency phone

Chemtrec 1-800-424-9300

Date Prepared: July 2010

Date Revised: N/A

SECTION 2

Hazard identification

2.1 Hazard classification

Highly flammable; Sensitizing; Irritating.

2.2 Other hazard

Uncured material may be harmful if swallowed.

SECTION 3

Composition/Information on Ingredients

3.1 Hazardous ingredients

HAZARDOUS INGREDIENTS	CAS N.	PEL	TLV	%
Acetone	67-64-1	750 ppm	500 ppm	25-35
Ethyl Alcohol	64-17-5	1000 ppm	1000 ppm	4-15
HydroxyEthylMethAcrylate (HEMA)	868-77-9	N/A	N/A	30-50

3.2 Other non-hazardous ingredients

None.

SECTION 4**First aid measures**

- 4.1 Treatment for eye contact: Flush with water for 15 minutes. If irritation persists, seek medical attention.
- 4.2 Treatment for skin contact: Wash skin thoroughly with soap and water. Use hand cream.
- 4.3 Treatment for inhalation (breathing): Remove to fresh air. If irritation persists, seek medical attention.
- 4.4 Treatment for ingestion (swallowing): Do not give liquids if person is unconscious. Seek medical attention.

SECTION 5**Fire-fighting Measures**

- 5.1 Suitable extinguishing media: Carbon dioxide and dry chemical foam.
- 5.2 Forbidden extinguishing media: Unknown.
- 5.3 Special fire fighting measures: None. Wear self-contained breathing apparatus and full protective gear.
- 5.4 Unusual fire and explosion hazards: Heat can cause polymerization of the product and formation of hazardous vapours.
- 5.5 Special protection equipment: Sealed overall against liquids and gases.

SECTION 6**Accidental Release Measures**

- 6.1 Personal Precautions: Adopt the same precautions listed in section 8.
- 6.2 Environmental Precautions: Keep spilled material out of sewers.
- 6.3 Reclaiming Methods: Dilute with water, wipe up with cloth and transfer to suitable container for disposal. Dispose of in accordance with local regulations.

SECTION 7**Handling and Storage**

- 7.1 Handling Precautions: Handle away from sources of ignition. Adopt precautions listed in section 8.
- 7.2 Precautions in case of Fire and Explosion: Extinguish all ignition sources.
- 7.3 Storage Conditions: Store in a cool, dry place, away from heat, light and ignition sources.
- 7.4 Suggested container(s): The original containers provided by manufacturer.
- 7.5 Indication for Combined Storage: Avoid contact with strong oxidizing agents.
- 7.6 Environmental precautions: Avoid contamination of sewers with product.
- 7.7 Other Precautions: Use according to directions and good personal hygiene and safety practices.

SECTION 8**Exposure controls/personal protection****8.1 Exposure Limits:**TWA/TLV : 1000 ppm (Ethanol); 500 ppm (Acetone);**8.2 Exposure control measures****8.2.1 Precautionary Measures:****Ventilation:**

Local Exhaust Ventilation: Sufficient to keep vapours under exposure limits.
Special Ventilation: None required.
Mechanical (General) Ventilation: Good general ventilation recommended.
Other Ventilation: None required.

Respiratory Protection:

Avoid breathing of vapours of the material. In case of high vapours concentration, use a mask with a filter against organic vapours.

Hands Protection:

Nitrile or Vinyl gloves are sufficient for short contact and for small quantity handling. Otherwise, impervious rubber or PVA gloves are recommended.

Eyes Protection:

Safety glasses may be used.

Skin Protection:

Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure to uncured material.

Other Protective Equipments:

It would be better use a lab coat.

*Measures listed in this paragraph are to be considered as indications and NOT prescriptions***8.2.2 Environment exposure control measures**

Not Applicable.

SECTION 9**Physical and Chemical Properties****9.1 General information**Appearance: Pale yellow liquid.Odour: Fruity odour.**9.2 Information related to health, safety and environment**pH: 1,6Relative density: N/EBoiling point: N/ESpecific gravity: 1,0 g/mlFlash point: 13°CSolubility: Uncured material is partially soluble.Flammability: Flammable.Partition coefficient n-octanol/water: N/ELower Explosivity Limit (L.E.L.): N/EViscosity: N/EUpper Explosivity Limit (U.E.L.): N/EVapor density (air = 1): N/EOxidizing properties: NoneEvaporation rate (n-butane = 1): N/EVapour pressure: N/EMelting point: N/E**9.3 Other information**Miscibility: Not availableConducibility: Not availableSolubility in Lipids: Not availableGases Group: Not applicable

SECTION 10**Stability and Reactivity**

Stability: Stable if stored as directed.

10.1 Conditions to avoid: Heat, sparks and open flame.

10.2 Materials to avoid (incompatibility): Strong oxidizing agents.

10.3 Hazardous decomposition products: Carbon Oxides.

Other precautions:

Hazardous Polymerization Products: Not determined

Safety significance in case of change in physical appearance: Unknown

Stabilizers: The product is stabilized with non-hazardous polymerization inhibitors.

SECTION 11**Toxicological Information**

CMR effects (Carcinogenicity, Mutagenicity and toxicity for reproduction):

None.

Effects and hazards of eye contact: May cause irritation and damage if not removed promptly.

Effects and hazards of skin contact: Irritating. May cause sensitization in sensitive individuals.

Effects and hazards of Inhalation (Breathing): May cause irritation to the throat and respiratory tract.

Effects and hazards of Ingestion (Swallowing): May cause severe irritation to the digestive tract, abdominal pain, nausea. Uncured material may be harmful if swallowed.

Effects for prolonged Exposure: Not applicable.

Toxic-kinetic effects: Unknown.

Effects on metabolism: Unknown.

Toxicological data for ingredients:

HEMA	LD ₅₀ (oral rat)	> 5000 mg/Kg
	LD ₅₀ (skin rabbit)	> 3000 mg/Kg
	LC ₅₀ (inhalation rat/3 weeks)	> 0,5 mg/Kg
ACETONE	LD ₅₀ (oral rat)	5800 mg/Kg
	LD ₅₀ (skin rabbit)	20000 mg/Kg
	LC ₅₀ (inhalation rat/4 hours)	150 mg/l

Ethyl Alcohol	LC ₅₀ (inhalation mouse/4hrs)	39g/m ³
	LC ₅₀ (inhalation rat/10hrs)	20000ppm
	LD _{L0} (intraperitoneal dog)	3000mg/Kg
	LD ₅₀ (intraperitoneal guinea pig)	3414mg/Kg
	LD ₅₀ (intraperitoneal hamster)	5068mg/Kg
	LD ₅₀ (intraperitoneal mammal)	4300mg/Kg
	LD ₅₀ (intraperitoneal mouse)	933mg/Kg
	LD ₅₀ (intraperitoneal rat)	3750mg/Kg
	LD ₅₀ (intraperitoneal rabbit)	963mg/Kg
	LD _{L0} (intravenous cat)	3945mg/Kg
	LD _{L0} (intravenous chicken)	8216mg/Kg
	LD _{L0} (intravenous dog)	1600mg/Kg
	LD ₅₀ (intravenous mouse)	1973mg/Kg
	LD ₅₀ (intravenous rat)	1440mg/Kg
	LD ₅₀ (intravenous rabbit)	2374mg/Kg
	LD _{L0} (oral cat)	6000mg/Kg
	LD _{L0} (oral child)	2000mg/Kg
	LD _{L0} (oral dog)	5500mg/Kg
	LD ₅₀ (oral guinea pig)	5560mg/Kg
	LD _{L0} (oral human)	1400mg/Kg
	TD _{L0} (oral man)	700mg/Kg
	TD _{L0} (oral man)	50mg/Kg
	TD _{L0} (oral man)	1430mg/Kg
	LD ₅₀ (oral mouse)	7500mg/Kg
	LD ₅₀ (oral rat)	7060 mg/Kg
	LD ₅₀ (oral rabbit)	6300mg/Kg
	TD _{L0} (oral woman)	6300mg/Kg
	LD _{L0} (subcutaneous chicken)	5g/Kg
	LD _{L0} (subcutaneous dog)	6000mg/Kg
	LD _{L0} (subcutaneous frog)	7100mg/Kg
	LD _{L0} (subcutaneous infant)	19440mg/Kg
	LD _{L0} (subcutaneous mouse)	4g/Kg
	LD _{L0} (subcutaneous pigeon)	5g/Kg
	LD _{L0} (skin rabbit)	20g/Kg

SECTION 12**Ecological Information**

This product has not known ecological hazardous effects.

12.1 Eco-toxicity: Not available

12.2 Mobility: Not available

12.3 Persistence and degradability: Not available

12.4 Bioaccumulative potential: Not available

12.5 Results of PBT (Persistent Bio-Toxicity) assessment: Not available

12.6 Other adverse effects: Not available

Aquatic toxicity data for ingredients:

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HEMA Easily biodegradable: 84% (OCSE 301D, closed bottle test, 28 days)	LC ₅₀ (<i>Fish, Oryzias Latipes</i>)	> 100 mg/l (OCSE 203, 96h)
	LC ₅₀ (<i>Fish, Oryzias Latipes</i>)	> 100 mg/l (OCSE 204, 14 days)
	NOEC (<i>Daphnia magna</i>)	24,1 mg/l (OCSE 202/2, 21 days)
	EC ₅₀ (<i>Daphnia magna</i>)	380 mg/l (OCSE 202/1, 48h)
Ethanol	EC ₅₀ (<i>Selenastrum Copricornutum</i>)	345 mg/l (OCSE 201, 72h)
	EC ₅₀ (<i>Pseudomonas fluorescens</i>)	> 3000 mg/l (DEV LB, 16h)
	LC ₅₀ (<i>Oncorhynchus mykiss</i>):	10400-13000 mg/l (96hrs)
	LC ₅₀ (<i>Pimephales promelas</i>):	15300 mg/l (96hrs)
	LC ₅₀ (Other fishes):	10000 mg/l (24hrs)
	LC ₅₀ (<i>Daphnia magna</i>):	9,3 mg/l (48hrs)

SECTION 13**Disposal considerations**

Dispose of in accordance with local regulations.

SECTION 14**Transport information**14.1 Sea transportation (IMDG)

UN number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E
 Stowage/segregation: Category B; Limited Quantity: 1 Lt
 Proper shipping name: Flammable liquid, n.o.s.

14.2 Air transportation (ICAO/IATA)

UN number: 1993 Class: 3 Packing group: II Label: 3
 Maximum quantities: 5 Lt (Passenger Aircraft); 60 Lt (Cargo Aircraft only)
 Limited Quantity: 1 Lt Proper shipping name: Flammable liquid, n.o.s. (Acetone, Ethyl Alcohol)

14.3 Transportation by Road/Railway (RID/ADR)

UN number: 1993 Class: 3 Packing group: II Label: 3
 Limited Quantity: LQ4 (3 Lt/30 Kg for combined, 1 Lt/20 Kg for bandaged trays).
 Proper shipping name: Flammable liquid, n.o.s.

SECTION 15**Other information**15.1 Hazardous Materials Identification System.

HMIS (Hazardous Material Identification System) Rating:

H2 F4 R0

[HMIS Hazard Index: 4 – Severe Hazard; 3 – Serious Hazard;

2 – Moderate Hazard; 1 – Slight Hazard; 0 – Minimum Hazard]

15.2 Sources of key data used to compile the Safety Data Sheet:

A.C.G.I.H. (www.acgih.org)

N.I.O.S.H. (www.cdc.gov/niosh/)

O.S.H.A. (www.osha.gov/)

U.E. (www.europa.eu/index_it.htm)

I.A.R.C. (www.iarc.fr/)

N.T.P. (www.ntp.niehs.nih.gov)

European Chemicals Bureau (ECB – www.ecb.jrc.it)

European chemical Substances Information System (ESIS - www.ecb.jrc.it/esis)

CAUTION: PRODUCT FOR PROFESSIONAL USE

This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this MSDS is, to the best of our knowledge, believed to be accurate. The information on this Safety Sheet is based on presently available data and to our best knowledge for the correct handling of the product under normal conditions. Any use of this product in any way not indicated on this Sheet or the use of this product together with any other process/procedure will be exclusively under the user's responsibility. This document does not constitute explicit or implicit warranty of product quality or fitness for a particular purpose.