

Section 1. Identification

GHS product identifier : OptiBand Catalyst

Other means of identification : Not available.

Product type : Paste.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Dental product: Bonding agent

Area of application : Professional applications.

Manufacturer for : **Ormco Corporation**
1717 West Collins Avenue
Orange, CA 92867
Telephone no.: 1-800-854-1741

e-mail address of person responsible for this SDS : Contact customer service at 1-800-854-1741 for any questions

Emergency telephone number (with hours of operation) : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health effects are based on the uncured material.

Classification of the substance or mixture : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 1
STOT SE 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

- Hazard statements** : Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhale.
- Precautionary statements**
- Prevention** : Wear protective gloves. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust. Wash hands thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. 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.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/ other identifiers

- CAS number** : Not applicable.
- Product code** : Not available.

Ingredient name	Other names	%	CAS number
Glass filler	Not available.	30-50	65997-18-4
Bisphenol A glycidylmethacrylate	Not available.	10-30	1565-94-2
Fume Silica	Not available.	10-30	60675-86-0
Triethylene glycol dimethacrylate	Not available.	10-30	109-16-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.

Most important symptoms/effects acute and delayed

Potential acute health effects

- Eye contact** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Inhalation** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Skin contact** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Ingestion** : Not expected to present a significant hazard under anticipated conditions of normal use.

Over-exposure signs/symptoms

- Eye contact** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Inhalation** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Skin contact** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Ingestion** : Not expected to present a significant hazard under anticipated conditions of normal use.

Indication of immediate medical attention and special treatment needed if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide carbon
monoxide nitrogen
oxides halogenated
compounds metal
oxide/oxides hydrogen
fluoride

Special protective actions for fire-fighters : In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions protective equipment and emergency procedures

For non-emergency personnel : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely

For emergency responders : Low release. See also the information in "For non-emergency personnel".

Environmental precautions : Low release. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Large spill : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<u>Ingredient name</u>	<u>Exposure limits</u>
Not Applicable	

Appropriate engineering controls : No special measures are required for small quantities under normal and intended conditions of product use.

Environmental exposure controls : No special measures are required for small quantities under normal and intended conditions of product use.

Individual protection measures

Hygiene measures : No special measures are required for small quantities under normal and intended conditions of product use.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : No special measures are required for small quantities under normal and intended conditions of product use.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid. [Paste.]
Color	: Colorless
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.

Boiling point : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Water: Solubility in water of component(s) of the mixture: 4 g/100ml • : 0.0003 g/100ml
• > 0.0003 g/100ml

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Not Established

Possibility of hazardous reactions : Not Established

Conditions to avoid : Keep away from heat and direct sunlight. Extremely high or low temperatures

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and reducing materials. Strong acids and strong bases

Hazardous decomposition products : fume. Carbon monoxide. Carbon dioxide.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Glass filler (65997-18-4)	
LD50 oral rat	Not Applicable (N/A)
LD50 dermal rat	N/A
LD50 dermal rabbit	N/A
LC50 inhalation rat (ppm)	N/A
2-hydroxyethyl methacrylate, stabilized (868-77-9)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit)
Fume Silica	Not Applicable

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Triethylene glycol dimethacrylate (109-16-0) : IARC group 4 - Probably Not Carcinogenic

Glass filler (65987-18-4) : IARC group 4 - Probably Not Carcinogenic

Fused Silica (60675-86-0): IARC group 4 - Probably Not Carcinogenic

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation

Glass filler (65997-18-4)	
LOAEL (oral,rat)	N/A mg/kg body weight
LOAEL (dermal,rat/rabbit)	N/A mg/kg body weight
LOAEL (inhalation,rat,gas)	N/A ppmV/4h
LOAEL (inhalation,rat,vapour)	N/A mg/l/4h

Glass filler (65997-18-4)

LOAEL (inhalation.rat.dust/mist/fume) N/A mg/l/4h

Glass filler (65997-18-4)	
LOAEL (oral,rat,90 days)	N/A mg/kg bodyweight/day
LOAEL (dermal,rat/rabbit,90 days)	N/A mg/kg bodyweight/day
LOAEL (inhalation,rat,gas,90 days)	N/A ppmV/6h/day
LOAEL (inhalation,rat,vapour,90 days)	N/A mg/l/6h/day
LOAEL (inhalation,rat,dust/mist/fume,90 days)	N/A mg/l/6h/day

Information on the likely routes of exposure

Potential acute health effects : Routes of entry anticipated: Oral, Dermal, Inhalation.

Eye contact : Causes serious eye irritation.

Inhalation: May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Not available.

bisphenol A glycidylmethacrylate (1565-94-2)

Persistence and degradability	Biodegradability in water: no data available.
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Bioaccumulative potential	Not established.
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bisphenol A glycidylmethacrylate (1565-94-2)

Log Pow	4.94 (Estimated value)
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Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

No additional information available

Other adverse effects : No known significant effects or critical hazards. Avoid release to the environment.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

: Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) PAIR: mequinol
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: zinc hexafluorosilicate; toluene
Clean Water Act (CWA) 311: zinc hexafluorosilicate; toluene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)
Clean Air Act Section 602
Class I Substances

Section 16. Other information.

Hazardous material information system (U.S.A.)

Health	*	3
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

To the Reader:

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