

SAFETY DATA SHEET

ESTEC EM II PASTE A/B

1. Identification

Product identifier

Product name ESTEC EM II PASTE A/B

Recommended use of the chemical and restrictions on use

Restriction on use Adhesive resin cement. For dental professionals only.

Details of the supplier of the safety data sheet

Supplier Tokuyama Dental America, Inc.
740 Garden View CT., Suite 200 Encinitas, CA 92024 U.S.A.
Tel: +1-760-942-7211
Fax: +1-760-942-7212

Contact person <http://www.tokuyama-dental.com/tdc/contact.html>

Manufacturer Tokuyama Dental Corporation
38-9, Taitou 1-chome, Taitou-ku, Tokyo
110-0016, Japan
TEL: +81-3-3835-2261
FAX: +81-3-3835-2265

Emergency telephone number

Emergency telephone Tokuyama Dental America, Inc. Tel: +1-760-942-7211
Days and hours of operation : 9:00-17:00(PST/PDT), Weekdays, except national holidays in US.
Language: English only.

2. Hazard identification

Classification of the substance or mixture

WHMIS Regulatory Status This product has been classified according to the hazard criteria of the Hazardous Product Regulations and the SDS contains all required information.

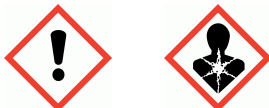
Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317 Carc. 2 - H351

Environmental hazards Not Classified

Label elements

Pictogram



Signal word Warning

Hazard statements H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.

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Precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapors.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with local regulations.</p>
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3. Composition/information on ingredients

Mixtures

POLY(OXY-1,2-ETHANEDIYL), α,α' -[1-METHYLETHYLIDENE]DI-4,1-PHENYLENE]BIS[ω -[(2-METHYL-1-OXO-2-PROPENYL)OXY]-	10-30%
CAS number: 41637-38-1	
2-PROPENOIC ACID, 2-METHYL-, 1,2-ETHANEDIYLBIS(OXY-2,1-ETHANEDIYL) ESTER	10-30%
CAS number: 109-16-0	
2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER	1-5%
CAS number: 1565-94-2	
TITANIUM DIOXIDE	<1%
CAS number: 13463-67-7	
PEROXIDE, DIBENZOYL	<1%
CAS number: 94-36-0	
2,2'-[(4-METHYLPHENYL)IMINO]BIETHANOL	<1%
CAS number: 3077-12-1	
BENZENAMINE, N,N,4-TRIMETHYL-	<1%
CAS number: 99-97-8	

4. First-aid measures

Description of first aid measures

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General information	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly with soap and water. Take off contaminated clothing and wash it before reuse.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

Skin contact	Skin irritation. Allergic rash.
Eye contact	May cause severe eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
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Specific hazards arising from the hazardous product

Specific hazards	In case of fire, toxic gases may be formed.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Move containers from fire area if it can be done without risk. Containers close to fire should be removed or cooled with water. No smoking, sparks, flames or other sources of ignition near spillage.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage.
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Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.
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Methods and material for containment and cleaning up

Methods for cleaning up	Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Keep combustible materials away from spillage. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. Use non-sparking tools.
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Reference to other sections

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Reference to other sections For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions All handling should only take place in well-ventilated areas. Keep away from heat, sparks and open flame. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Take any precaution to avoid mixing with combustibles and reducing agents.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at temperatures between 0°C/32°F and 10°C/50°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid exposure to high temperatures or direct sunlight. Protect from light.

Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m³
A4

PEROXIDE, DIBENZOYL

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³
A4

ACGIH = American Conference of Governmental Industrial Hygienists.
A4 = Not Classifiable as a Human Carcinogen.

Ingredient comments Titanium dioxide (TiO₂) is kneaded in the product, it does not exist as respirable particles.

Exposure controls

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection The following protection should be worn: Chemical splash goggles.

Hand protection Wear protective gloves.

Other skin and body protection Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station and safety shower. Do not smoke in work area. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Paste

Colour Clear, White to Brown

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Odour	Characteristic
Odour threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not applicable.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not determined.
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
Other information	Not available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable under the prescribed storage conditions.
Possibility of hazardous reactions	Not known.
Conditions to avoid	Keep away from heat, sparks and open flame. Protect against direct sunlight.
Materials to avoid	Flammable/combustible materials. Strong reducing agents.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO ₂).

11. Toxicological information

Information on toxicological effects

Routes of exposure	Skin , Eyes , Ingestion , Inhalation , Health effects: See section 4. Titanium dioxide (TiO ₂) is kneaded in the product, it does not exist as respirable particles.
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ESTECEM II PASTE A/B**Acute toxicity - oral****Notes (oral LD₅₀)** Not available.**Acute toxicity - dermal****Notes (dermal LD₅₀)** Not available.**Acute toxicity - inhalation****Notes (inhalation LC₅₀)** Not available.**Skin corrosion/irritation****Skin corrosion/irritation** Causes skin irritation.**Animal data**

Not available.

Serious eye damage/irritation**Serious eye damage/irritation** Causes serious eye irritation.**Respiratory sensitization****Respiratory sensitization** Not available.**Skin sensitization****Skin sensitization** May cause an allergic skin reaction.**Germ cell mutagenicity****Genotoxicity - in vitro** Not available.**Genotoxicity - in vivo** Not available.**Carcinogenicity****Carcinogenicity** Suspected of causing cancer.**IARC carcinogenicity** Some of the ingredients are listed or exempt.**NTP carcinogenicity** Some of the ingredients are listed or exempt.**OSHA Carcinogenicity** None of the ingredients are listed.**Reproductive toxicity****Reproductive toxicity - fertility** Not available.**Reproductive toxicity - development** Not available.**Specific target organ toxicity - single exposure****STOT - single exposure** Not available.**Specific target organ toxicity - repeated exposure****STOT - repeated exposure** Not available.**Aspiration hazard****Aspiration hazard** Not available.**Toxicological information on ingredients****TITANIUM DIOXIDE****Acute toxicity - inhalation****ATE inhalation (dusts/mists mg/l)** 1.5**Carcinogenicity**

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IARC carcinogenicity	IARC Group 2B Possibly carcinogenic to humans.
NTP carcinogenicity	Reasonably anticipated to be a human carcinogen.
OSHA Carcinogenicity	Not listed.

PEROXIDE, DIBENZOYL**Carcinogenicity**

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
NTP carcinogenicity	Reasonably anticipated to be a human carcinogen.
OSHA Carcinogenicity	Not listed.

12. Ecological Information

Toxicity Not available.

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Mobility in soil

Mobility No information available.

Other adverse effects

Other adverse effects Not known.

13. Disposal considerations**Waste treatment methods**

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, TDG).

UN number

UN No. (International) Not applicable.

UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels (International) Not applicable.

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DOT transport label

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

Special precautions for user

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory References According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR) Hazardous Products Regulations - SOR/2015-17. Transportation of Dangerous Goods Regulations - SOR/2015-100.

16. Other information

Training advice Ensure operatives are trained to minimize exposure. Only trained personnel should use this material.

Revision comments This is first issue.

Revision date 20/03/2018

Revision 1

Hazard statements in full H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.

The information which is contained in this document is based on available data. However, as such has been obtained from various sources, including independent laboratories, it is given without warranty or representation that is complete, accurate and can be relied upon. Tokuyama Dental Corp. has not attempted to conceal in any way the deleterious aspects of the product listed herein, but makes no warranty as to such information.