

SAFETY DATA SHEET

ESTELITE UNIVERSAL FLOW (Medium, Super Low, High)

1. Identification

Product identifier

Product name ESTELITE UNIVERSAL FLOW (Medium, Super Low, High)

Recommended use of the chemical and restrictions on use

Application Resin-based Dental Restorative Material. 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: (877) 378 3548 (Toll-Free)
Tel: (760) 942 7211
Fax: (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 California Poison Control System - San Francisco Division
San Francisco General Hospital
Bldg 5 Rm 2A21, 1001 Potrero Ave, San Francisco
Emergency telephone number: +1 800 222 1222
E-mail address: coadmin@calpoison.org
<http://www.calpoison.org>

National Capital Poison Center
3201 New Mexico Ave, Ste 310, Washington DC
Emergency telephone number: +1 800 222 1222
Telephone number: +1 202 362 3867
Facsimile number: +1 202 362 8377
E-mail address: pc@poison.org
<http://www.poison.org>

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 : Eye Irrit. 2A - H319 : Skin Sens. 1 - H317 : STOT SE 3 - H335

Environmental hazards Not Classified

Label elements

ESTELITE UNIVERSAL FLOW (Medium, Super Low, High)**Pictogram****Signal word**

Warning

Hazard statements

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Precautionary statements

P264 Wash contaminated skin 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 protective gloves/ protective clothing/ eye protection/ face protection.
 P261 Avoid breathing vapor/ spray.
 P302+P352 If on skin: Wash with plenty of water.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a poison center/ doctor if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P332+P313 If skin irritation occurs: Get medical advice/ attention.
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with local regulations.

Supplemental label information

AT(o) 0.05% of the mixture consists of ingredient(s) of unknown acute oral toxicity.

Contains

BISPHENOL A POLYETHOXY DIMETHACRYLATE, TRIETHYLENE GLYCOL DIMETHACRYLATE, 2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER, 2-(2H-BENZOTRIAZOL-2-YL)-p-CRESOL

Other hazards**Hazards not otherwise classified (HNOC)**

Not applicable.

3. Composition/information on ingredients**Mixtures****BISPHENOL A POLYETHOXY DIMETHACRYLATE****0 - 30%**

CAS number: 41637-38-1

TRIETHYLENE GLYCOL DIMETHACRYLATE**5 - 20%**

CAS number: 109-16-0

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2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER CAS number: 1565-94-2	0 - 30%
2-(2H-BENZOTRIAZOL-2-YL)-p-CRESOL CAS number: 2440-22-4	< 1%
p-METHOXYPHENOL CAS number: 150-76-5	< 0.1%
2,6-DI-tert-BUTYL-p-CRESOL CAS number: 128-37-0 M factor (Chronic) = 1	< 0.1%
TITANIUM DIOXIDE CAS number: 13463-67-7	< 0.1%

4. First-aid measures

Description of first aid measures

General information	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Try to induce vomiting. Get medical attention if any discomfort continues.
Skin Contact	Wash with plenty of 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. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

Indication of 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 foam, carbon dioxide, dry powder or water fog.

Special hazards arising from the substance or mixture

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 vapors.

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Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors.

Special protective equipment for firefighters Wear chemical protective suit.

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.

Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

Methods and material for containment and cleaning up

Methods for cleaning up Provide adequate ventilation. Collect and place in suitable waste disposal containers and seal securely.

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

7. Handling and storage

Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. All handling should only take place in well-ventilated areas. Avoid contact with skin, eyes and clothing. Avoid breathing vapour/spray.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Take off contaminated clothing and wash it before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a well-ventilated place. Keep away from heat, sparks and open flame. Avoid exposure to high temperatures or direct sunlight.

Specific end uses(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

p-METHOXYPHENOL

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

2,6-DI-tert-BUTYL-p-CRESOL

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³ inhalable fraction and vapor
A4

TITANIUM DIOXIDE

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

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

OSHA = Occupational Safety and Health Administration.

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Exposure controls

Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Wear protective gloves.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Take off contaminated clothing and wash it before reuse.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Paste
Color	Yellow-white
Odor	Odorless
Odor threshold	Not available.
pH	Not applicable.
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 applicable.
Other flammability	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.7
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.

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Oxidizing properties Not available.

Other information Not available.

10. Stability and reactivity

Reactivity There are no known reactivity hazards associated with this product. See the other subsections of this section for further details.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions Not known.

Conditions to avoid Keep away from heat, sparks and open flame. Protect against direct sunlight.

Materials to avoid Strong oxidizing agents.

Hazardous decomposition products Heating may generate the following products: Toxic gases or vapors.

11. Toxicological information

Information on toxicological effects

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 Skin Irrit. 2 - H315 Causes skin irritation.

Animal data

Not available.

Serious eye damage/irritation

Serious eye damage/irritation Eye Irrit. 2 - H319 Causes serious eye irritation.

Respiratory sensitization

Respiratory sensitization Not available.

Skin sensitization

Skin sensitization Skin Sens. 1 - H317 May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro Not available.

Genotoxicity - in vivo Not available.

Carcinogenicity

Carcinogenicity Some ingredients are listed in the National Toxicology Program (NTP) Report on Carcinogens, or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, or by OSHA.

IARC carcinogenicity Some of the ingredients are listed or exempt.

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NTP carcinogenicity Some of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Not available.

Reproductive toxicity - development Not available.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H335 May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not available.

Aspiration hazard

Aspiration hazard Not available.

Toxicological information on ingredients.

2,6-DI-tert-BUTYL-p-CRESOL

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.

TITANIUM DIOXIDE

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 1.5

Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

NTP carcinogenicity Reasonably anticipated to be a human carcinogen.

OSHA Carcinogenicity Not listed.

12. Ecological Information

Acute aquatic toxicity

Acute toxicity - fish Not available.

Acute toxicity - aquatic invertebrates Not available.

Acute toxicity - aquatic plants Not available.

Ecological information on ingredients.

2,6-DI-tert-BUTYL-p-CRESOL

Chronic aquatic toxicity

M factor (Chronic) 1

Persistence and degradability

Persistence and degradability No data available.

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Bioaccumulative potential

Bio-Accumulative 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 Not regulated.

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

Not applicable.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

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

15. Regulatory information

Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Regulatory References OSHA Hazard Communication Standard 29 CFR §1910.1200

US Federal Regulations

SARA (311/312) Hazard Categories

Acute

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

ESTELITE UNIVERSAL FLOW (Medium, Super Low, High)*TITANIUM DIOXIDE***California Directors List of Hazardous Substances***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL***Massachusetts "Right To Know" List***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL**TITANIUM DIOXIDE***Rhode Island "Right To Know" List***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL**TITANIUM DIOXIDE***Minnesota "Right To Know" List***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL**TITANIUM DIOXIDE***New Jersey "Right To Know" List***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL**TITANIUM DIOXIDE***Pennsylvania "Right To Know" List***2,6-DI-tert-BUTYL-p-CRESOL**p-METHOXYPHENOL**TITANIUM DIOXIDE***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	9/30/2017
Revision	1
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

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.