

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

#### 4. First-aid measures

##### Description of first aid measures

<b>General information</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Try to induce vomiting. Get medical attention if any discomfort continues.
<b>Skin Contact</b>	Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
<b>Eye contact</b>	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

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

##### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	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

<b>Specific hazards</b>	In case of fire, toxic gases may be formed.
<b>Hazardous combustion products</b>	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/m<sup>3</sup>

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

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m<sup>3</sup> inhalable fraction and vapor  
A4

##### **TITANIUM DIOXIDE**

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m<sup>3</sup>  
A4

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m<sup>3</sup> 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

<b>Appropriate engineering controls</b>	Provide adequate general and local exhaust ventilation.
<b>Eye/face protection</b>	Wear tight-fitting, chemical splash goggles or face shield.
<b>Hand protection</b>	Wear protective gloves.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent any possibility of skin contact.
<b>Hygiene measures</b>	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.
<b>Respiratory protection</b>	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

<b>Appearance</b>	Paste
<b>Color</b>	Yellow-white
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Evaporation factor</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Other flammability</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.7
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	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 LD<sub>50</sub>)** Not available.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Not available.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** 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.

## ESTELITE UNIVERSAL FLOW (Medium, Super Low, High)

### 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**

<b>Training advice</b>	Ensure operatives are trained to minimize exposure. Only trained personnel should use this material.
<b>Revision comments</b>	This is first issue.
<b>Revision date</b>	9/30/2017
<b>Revision</b>	1
<b>Hazard statements in full</b>	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.