SAFETY DATA SHEET  
ESTELITE Σ QUICK

1. Identification

Product identifier

Product name  
ESTELITE Σ QUICK

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: cadmin@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 Sens. 1 - H317

Environmental hazards  
Not Classified

Label elements
**ESTELITE Σ QUICK**

**Pictogram**

- **Signal word** Warning

**Hazard statements**

H317 May cause an allergic skin reaction.

**Precautionary statements**

P261 Avoid breathing dust.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with local regulations.

**Contains**

- 2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER, TRIETHYLENE GLYCOL DIMETHACRYLATE, p-METHOXYPHENOL

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER</td>
<td>10-30%</td>
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<tr>
<td>CAS number: 1565-94-2</td>
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<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE</td>
<td>5-10%</td>
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<tr>
<td>CAS number: 109-16-0</td>
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<tr>
<td>2,6-DI-tet-BUTYL-p-CRESOL</td>
<td>&lt;1%</td>
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<tr>
<td>CAS number: 128-37-0</td>
<td></td>
</tr>
<tr>
<td>M factor (Chronic) = 1</td>
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</tr>
<tr>
<td>p-METHOXYPHENOL</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>CAS number: 150-76-5</td>
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<tr>
<td>TITANIUM DIOXIDE</td>
<td>&lt; 0.1%</td>
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<tr>
<td>CAS number: 13463-67-7</td>
<td></td>
</tr>
</tbody>
</table>

### 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.

**Ingestion**

Try to induce vomiting. Get medical attention if any discomfort continues.

**Skin Contact**

Wash skin thoroughly with soap and water.
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### Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. 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

**Skin contact**  
Allergic rash.

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

No specific recommendations.

### Notes for the doctor

No specific recommendations.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media**  
Extinguish with the following media: Foam. Carbon dioxide or dry powder.

**Special hazards arising from the substance or mixture**

**Specific hazards**  
When heated and in case of fire, irritating vapors/gases may be formed.

**Hazardous combustion products**  
No known hazardous decomposition products.

#### 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**

No specific recommendations.

**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. Absorb in vermiculite, dry sand or earth and place into containers.

**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.

**Conditions for safe storage, including any incompatibilities**

**Storage precautions**  
Store in a cool and well-ventilated place. Store at temperatures between 0°C/25°F and 32°C/77°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid exposure to high temperatures or direct sunlight.

**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

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

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

p-METHOXYPHENOL

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

TITANIUM DIOXIDE

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

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

Exposure controls

Appropriate engineering controls
Provide adequate general and local exhaust ventilation.

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
Do not smoke in work area. 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. Use appropriate skin cream to prevent drying of skin. 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

Color
Yellow-white

Odor
Not available.

Odor threshold
Not available.

pH
pH (concentrated solution): 7

Melting point
Not available.

Initial boiling point and range
Not available.
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<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Flash point</td>
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<td>Evaporation rate</td>
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</tr>
<tr>
<td>Evaporation factor</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
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<tr>
<td>Other flammability</td>
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</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>Relative density</td>
<td>1.9</td>
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<tr>
<td>Solubility(ies)</td>
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<tr>
<td>Partition coefficient</td>
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<tr>
<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other information</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

| 10. Stability and reactivity                   |                                |
| Reactivity                                    | May polymerize. 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          |                                |
| Routes of exposure                            | See section 4. Skin , Eyes , Ingestion , Inhalation |
| Acute toxicity - oral                         |                                |
| Notes (oral LD₅₀)                             | Not available.                 |
| Acute toxicity - dermal                       |                                |
| Notes (dermal LD₅₀)                           | Not available.                 |
| Acute toxicity - inhalation                   |                                |
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Notes (inhalation LC₅₀)
Not available.

Skin corrosion/iritation
Not available.

Animal data
Not available.

Serious eye damage/irritation
Not available.

Respiratory sensitization
Not available.

Skin sensitization
Sensitizing.

Germ cell mutagenicity
Not available.

Genotoxicity - in vitro
Not available.

Genotoxicity - in vivo
Not available.

Carcinogenicity
Based on available data the classification criteria are not met.

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
Not available.

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
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
ESTELITE Σ QUICK

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

Toxicity No data available.
Acute toxicity - fish Not available.
Acute toxicity - aquatic invertebrates Not available.
Acute toxicity - aquatic plants Not available.
Chronic toxicity - fish early life stage Not available.
Short term toxicity - embryo and sac fry stages Not available.
Chronic toxicity - aquatic invertebrates Not available.

Persistence and degradability
Persistence and degradability No data available.

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

UN Number Not applicable.
UN No. (IMDG) N/A
UN No. (ICAO) N/A
UN No. (DOT) N/A
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UN proper shipping name
Not applicable.

Transport hazard class(es)
Not applicable.

IMDG Class
Not applicable.

ICAO class/division
Not applicable.

Transport labels
No transport warning sign required.

Packing group
Not applicable.

IMDG packing group
Not applicable.

ICAO 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

US Federal Regulations
SARA (311/312) Hazard Categories
Acute

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
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
ESTELITE Σ QUICK

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

<table>
<thead>
<tr>
<th>16. Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training advice</td>
</tr>
<tr>
<td>Revision comments</td>
</tr>
<tr>
<td>Revision date</td>
</tr>
<tr>
<td>Revision</td>
</tr>
<tr>
<td>Hazard statements in full</td>
</tr>
</tbody>
</table>

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