

SAFETY DATA SHEETS

This SDS packet was issued with item:

075187802

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

075185285 075185467 075187018 075187026 075187034 075187042 075187059 075187067 075187075 075187083
075187091 075187109 075187117 075187125 075187133 075187141 075187158 075187166 075187174 075187182
075187190 075187208 075187216 075187307 075187604 075187612 075187620 075187638 075187646 075187653
075187661 075187679 075187687 075187695 075187703 075187711 075187729 075187737 075187745 075187752
075187760 075187778 075187786 075187794 075216510

MATERIAL SAFETY DATA SHEET

ESTELITE FLOW QUICK High Flow

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME ESTELITE FLOW QUICK High Flow

PRODUCT USE Resin-based Dental Restorative Material. For dental professionals only.

SUPPLIER Tokuyama Dental America Inc. MANUFACTURER Tokuyama Dental Corporation
Tel: (877) 378 3548 (Toll-Free) 38-9, Taitou 1-chome, Taitou-ku,
Tokyo, Japan
TEL: +81-3-3835-7201

CONTACT PERSON <http://www.tokuyama-dental.com/contact.htm>

EMERGENCY TELEPHONE

Washington
National Capital Poison Center
3201 New Mexico Avenue, Suite 310 Washington, DC 20016
Telephone: +1 202 362 3867
Emergency telephone: 1 800 222 1222
Fax: +1 202 362 8377
E-mail: pc@poison.org
Web site: <http://www.poison.org>

San Francisco
California Poison Control System
at San Francisco General Hospital
University of California San Francisco, Box 1369
1001 Potrero Avenue, Bldg 5 Rm 2A21
San Francisco, California 94143-1369
Telephone: +1 415 643 3200
Emergency telephone: 1 800 222 1222
Fax: +1 415 502 6010
E-mail: coadmin@calpoison.org
Web site: <http://www.calpoison.org>

<http://www.who.int/ipcs/poisons/centre/en/>

2 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

INGESTION

Slightly irritating. DIGESTIVE SYSTEM.

SKIN CONTACT

Slightly irritating. May cause sensitization by skin contact.

EYE CONTACT

Slightly irritating.

3 COMPOSITION/INFORMATION ON INGREDIENTS

| Name | EC No. | CAS-No. | Content % |
|--|-----------|------------|-----------|
| bisphenol A di(2-hydroxy propoxy) dimethacrylate | 216-367-7 | 1565-94-2 | 10-30% |
| camphorquinone | 233-814-1 | 10373-78-1 | < 1% |
| dibutyl hydroxy toluene | 204-881-4 | 128-37-0 | < 1% |
| MEQUINOL | 205-769-8 | 150-76-5 | < 1% |
| triethylene glycol dimethacrylate | 203-652-6 | 109-16-0 | 10-30% |

4 FIRST-AID MEASURES

GENERAL INFORMATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

ESTELITE FLOW QUICK High Flow

INHALATION

Move the exposed person to fresh air at once.

INGESTION

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

SKIN CONTACT

Wash the skin immediately with soap and water.

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. Contact physician if irritation persists.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Fire can be extinguished using: Foam. Carbon dioxide or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapors.

SPECIFIC HAZARDS

When heated and in case of fire, irritating vapours/gases may be formed.

PROTECTIVE MEASURES IN FIRE

Wear full protective clothing.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this material safety data sheet.

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

HANDLING

All handling to take place in well-ventilated area.

STORAGE

Store in a cool, dark place (0-25°C, 32-77°F). Keep away from heat, direct sunlight, sparks and open flames.

STORAGE CLASS

Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

HAND PROTECTION

Wear protective gloves.

EYE PROTECTION

Wear approved safety goggles.

OTHER 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 & 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.

ESTELITE FLOW QUICK High Flow

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Paste
 COLOR Yellow white
 RELATIVE DENSITY 1.8
 pH-VALUE, CONC. SOLUTION 7

10 STABILITY AND REACTIVITY

STABILITY
 Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID
 Keep away from heat, sparks and open flame. Protect against direct sunlight.

MATERIALS TO AVOID
 Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
 Toxic gases are generated when heated.

11 TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION
 No data on possible toxic effects have been found.

12 ECOLOGICAL INFORMATION

ECOTOXICITY
 No data on possible environmental effects have been found.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
 Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

TRANSPORT NOTES Not regulated.

15 REGULATORY INFORMATION

INVENTORIES

| COMPONENT | CAN | US | EU | AUS | JAP | KOR | CHN | PHLP |
|-----------|-----|-----|--------|-----|-----|-----|-----|------|
| MEQUINOL | No. | No. | EINECS | | | | | |

| COMPONENT | TSCA 12(b) Export Notification |
|-----------|--------------------------------|
| MEQUINOL | No. |

US FEDERAL REGULATIONS

| COMPONENT | SARA 302-TPQ | CERCLA-RQ | SARA 313 |
|-----------|--------------|------------|----------|
| MEQUINOL | Not Listed | Not Listed | No. |

CLEAN AIR ACT

| COMPONENT | CAA Accidental Release Prevention |
|-----------|-----------------------------------|
| MEQUINOL | Not Listed |

ESTELITE FLOW QUICK High Flow

US STATE REGULATIONS

| COMPONENT | CAS | CA | FL | MA | MN | NJ | PA | RI |
|-----------|----------|------------|------------|------------|------------|------------|------------|------------|
| MEQUINOL | 150-76-5 | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed |

REGULATORY REFERENCES

29 CFR 1910.1200(g) Federal Regulations (OSHA Standard).

16 OTHER INFORMATION

REVISION DATE 15/01/2013

DISCLAIMER

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.

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: 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 Sens. 1 - H317

Environmental hazards Not Classified

Label elements

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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

Mixtures

| | |
|--|--------|
| 2-PROPENOIC ACID, 2-METHYL-, (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)] ESTER CAS number: 1565-94-2 | 10-30% |
|--|--------|

| | |
|---|-------|
| TRIETHYLENE GLYCOL DIMETHACRYLATE CAS number: 109-16-0 | 5-10% |
|---|-------|

| | |
|--|-----|
| 2,6-DI-tert-BUTYL-p-CRESOL CAS number: 128-37-0 M factor (Chronic) = 1 | <1% |
|--|-----|

| | |
|---|-----|
| p-METHOXYPHENOL CAS number: 150-76-5 | <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.

Ingestion

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

Skin Contact

Wash skin thoroughly with soap and water.

ESTELITE Σ QUICK

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

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

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 uses(s)

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

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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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| | |
|---|-----------------|
| Flash point | Not available. |
| 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 | 1.9 |
| Solubility(ies) | Not available. |
| Partition coefficient | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition Temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not available. |
| Other information | Not available. |

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 |
| <u>Acute toxicity - oral</u> | |
| Notes (oral LD₅₀) | Not available. |
| <u>Acute toxicity - dermal</u> | |
| Notes (dermal LD₅₀) | Not available. |
| <u>Acute toxicity - inhalation</u> | |

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| | |
|--|--|
| Notes (inhalation LC₅₀) | Not available. |
| <u>Skin corrosion/irritation</u> | |
| Skin corrosion/irritation | Not available. |
| Animal data | Not available. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Not available. |
| <u>Respiratory sensitization</u> | |
| Respiratory sensitization | Not available. |
| <u>Skin sensitization</u> | |
| Skin sensitization | Sensitizing. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Not available. |
| Genotoxicity - in vivo | Not available. |
| <u>Carcinogenicity</u> | |
| 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. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Not available. |
| Reproductive toxicity - development | Not available. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | Not available. |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | Not available. |
| <u>Aspiration hazard</u> | |
| Aspiration hazard | Not available. |
| <u>Toxicological information on ingredients.</u> | |

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

ESTELITE Σ QUICK**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** 29 CFR 1910. 1200(g) Federal Regulations (OSHA Standard).**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

16. Other information

| | |
|----------------------------------|--|
| Training advice | Ensure operatives are trained to minimize exposure. Only trained personnel should use this material. |
| Revision comments | Revised formulation. |
| Revision date | 7/20/2017 |
| Revision | 2 |
| Hazard statements in full | H317 May cause an allergic skin reaction. |

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.