SAFETY DATA SHEET
ESTELITE FLOW QUICK High Flow

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name ESTELITE FLOW QUICK High Flow

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Resin-based Dental Restorative Material. For dental professionals only.

1.3. Details of the supplier of the safety data sheet

Supplier Tokuyama Dental Italy S.r.l.
Via dell’Artigianato, 7, 36030 Montecchio,
Precalcino (VI), Italy
TEL: +39-0445-334545
FAX: +39-0445-339133

Contact Person http://www.tokuyama-dental.com/contact.htm

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

1.4. Emergency telephone number

Guy's & St Thomas' Poisons Unit
Medical Toxicology Unit
Guy's & St Thomas' Hospital Trust Mary Sheridan House
15 St Thomas Street
London SE1 9RY
TEL: +44 (0)20 7188 0600
FAX: +44 (0)20 7188 0800
http://www.medtox.org.uk

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Not classified.
Human health Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317
Environment Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Contains (1-METHYLETHYLIDENE)BIS[4,1-PHENYLENEOXY(2-HYDROXY-3,1-PROPANEDIYL)]BISMETHACRYLATE
2,2’-ETHYLENEDIOXYDIETHYL DIMETHACRYLATE

Label In Accordance With (EC) No. 1272/2008

Signal Word Warning
Hazard Statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary Statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing vapour/spray.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with local regulations.

Supplementary Precautionary Statements
P272 Contaminated work clothing should not be allowed out of the workplace.
P264 Wash contaminated skin thoroughly after handling.
P321 Specific treatment (see medical advice on this label).
P332+313 If skin irritation occurs: Get medical advice/attention.
P333+313 If skin irritation or rash occurs: Get medical advice/attention.
P337+313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.

2.3. Other hazards
This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS-No.</th>
<th>EC No.</th>
<th>Classification (67/548/EEC)</th>
<th>PBT/vPvB</th>
<th>Classification (EC 1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2'-ETHYLENEDIOXYDIETHYL DIMETHACRYLATE</td>
<td>109-16-0</td>
<td>203-652-6</td>
<td>Xi; R36/38; R43.</td>
<td></td>
<td>Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317</td>
</tr>
<tr>
<td>2,6-DI-tert-BUTYL-p-CRESOL</td>
<td>128-37-0</td>
<td>204-881-4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This product does not contain any PBT or vPvB substances.
ESTELITE FLOW QUICK High Flow

DL-BORNANE-2,3-DIONE

< 1%

CAS-No.: 10373-78-1
EC No.: 233-814-1

Classification (67/548/EEC) Not classified.

MEQUINOL

< 1%

CAS-No.: 150-76-5
EC No.: 205-769-8

Classification (EC 1272/2008) Acute Tox. 4 - H302
Eye Irrit. 2 - H319
Skin Sens. 1 - H317

Classification (67/548/EEC) Xn; R22
R43
Xi; R36

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

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

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.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact
Skin irritation. Allergic rash.

Eye contact
May cause severe irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

No specific recommendations.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products
During fire, toxic gases (CO, CO2) are formed.

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

5.3. Advice for firefighters
ESTELITE FLOW QUICK High Flow

Special Fire Fighting Procedures
Avoid breathing fire vapours.

Protective equipment for fire-fighters
Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions
No specific recommendations.

6.3. Methods and material for containment and cleaning up
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
All handling to take place in well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities
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.

7.3. Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA - 8 Hrs</th>
<th>STEL - 15 Min</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-BUTYL-p-CRESOL</td>
<td>WEL</td>
<td>10 mg/m3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment

![Eye Protection](image1)
![Gloves](image2)

Engineering measures
Provide adequate general and local exhaust ventilation.

Respiratory equipment
No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

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 hands 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties
Appearance Paste
Colour Yellow white
Odour Not available.
Solubility Not available.
Initial boiling point and boiling range (°C) Not available.
Melting point (°C) Not available.
Relative density 1.8
Vapour density (air=1) Not available.
Vapour pressure Not available.
Evaporation rate Not available.
Evaporation Factor Not available.
pH-Value, Conc. Solution 7
Viscosity Not available.
Solubility Value (G/100G H2O@20°C) Not available.
Decomposition temperature (°C) Not available.
Odour Threshold, Lower Not available.
Odour Threshold, Upper Not available.
Flash point (°C) Not available.
Auto Ignition Temperature (°C) Not available.
Flammability Limit - Lower(%) Not applicable.
Flammability Limit - Upper(%) Not applicable.
Partition Coefficient (N-Octanol/Water) Not available.
Explosive properties Not explosive.
Other Flammability Not available.
Oxidising properties Not available.
9.2. Other information
Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
May polymerise.

10.2. Chemical stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Not known.

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

10.5. Incompatible materials
Materials To Avoid
Strong oxidising agents.

10.6. Hazardous decomposition products
Toxic gases are generated when heated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:
Acute Toxicity (Oral LD50)
Not available.
Acute Toxicity (Dermal LD50)
Not available.
Acute Toxicity (Inhalation LC50)
Not available.

Skin Corrosion/Irritation:
Not available.

Serious eye damage/Irritation:
Not available.

Respiratory or skin sensitisation:
Respiratory sensitisation
Not available.
Skin sensitisation
Not available.

Germ cell mutagenicity:
Genotoxicity - In Vitro
Not available.
Genotoxicity - In Vivo
Not available.

Carcinogenicity:
Carcinogenicity
Not available.
Not established: IARC, NTP, EU, OSHA, ACGIH
ESTELITE FLOW QUICK High Flow

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:
Viscosity
Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute Toxicity - Fish
Not available.

Acute Toxicity - Aquatic Invertebrates
Not available.

Acute Toxicity - Aquatic Plants
Not available.

12.2. Persistence and degradability

Degradability
No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Not available.

12.4. Mobility in soil

Mobility:
No information available.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

SECTION 14: TRANSPORT INFORMATION

General
The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
Not applicable.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user
Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Legislation
Dangerous Substance Directive 67/548/EEC.
Dangerous Preparations Directive 1999/45/EC.
(EC) No 1272/2008 (CLP).

15.2. Chemical Safety Assessment
No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments
This is first issue.
Revision Date 08/08/2014
Revision 1

Risk Phrases In Full
NC Not classified. , R22 Harmful if swallowed. , R36 Irritating to eyes. , R36/38 Irritating to eyes and skin. , R43 May cause sensitisation by skin contact. , R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. , R53 May cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full
H302 Harmful if swallowed. , H315 Causes skin irritation. , H317 May cause an allergic skin reaction. , H319 Causes serious eye irritation. , H410 Very toxic to aquatic life with long lasting effects. , H412 Harmful to aquatic life with long lasting effects.

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.