SAFETY DATA SHEET

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

1.1 Identification of the article
Product Name
everStick (C&B) / everStick NET / everStick ORTHO / everStick PERIO / everStick A&O
Product Code
100001 and 100230 / 100002 / 100016 / 100201 / 10250

1.2 Manufacturer, importer, supplier

1.2.1 Supplier
Stick Tech Ltd
Lemminkäisenkatu 46
FI-20520 TURKU
FINLAND

1.2.3 Name and address of the informant in emergency cases
Information center at the Central Hospital of Helsinki +358 9 471 977
Emergency telephone number
112

2. COMPOSITION / INFORMATION ON INGREDIENTS

2.1 Chemical characterisation
Preimpregnated glass fiber reinforcement for dental devices

2.2 Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name of the substance</th>
<th>Weight %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1565-94-2</td>
<td>2,2-bis[4-(2-hydroxy-3-methacyryloxypropoxy)]-phenylpropane</td>
<td>25-55%</td>
<td>Continuous exposure may cause skin irritation.</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION
Continuous skin contact may cause irritation.

4. FIRST AID MEASURES

4.1 General advice
None

4.2 Inhalation
Not suspected harmful via inhalation.

4.3 Skin contact
Wash off with soap and water.

4.4 Eye contact
Flush eyes thoroughly with large amount of water and consult a physician.

4.5 Ingestion
Do not induce vomiting. Obtain medical help.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Dry chemical, foam, carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions
Use personal protective clothing.
7. **HANDLING AND STORAGE**

7.1 **Handling**
Protect from light.

7.2 **Storage**
Keep refrigerated (2-8 deg C).

8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

8.1 **Engineering measures**
Wear protective gloves.

8.3 **Personal protective equipment**

8.3.1 **Hygiene measures**
Avoid contact with eyes and skin.

8.3.3 **Hand protection**
Wear impermeable gloves.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.3 **Information on changes in the physical state**

9.3.1 **Boiling point/range**
>200 deg C

9.3.2 **Melting point/range**
not determined

9.3.3 **Decomposition temperature**
not determined

9.4 **Flash point**
>150 deg C (DIN 51758)

9.5 **Flammability (solid, gas)**
not determined

9.6 **Autoignition temperature**
not determined

9.7 **Explosive properties**
none

9.8 **Explosion limits**
not applicable
- **lower**
- **upper**

9.9 **Oxidising properties**

9.13 **Partition coefficient (n-octanol/water)**
log Pow (Bis-GMA) 3.46 - 3.8

9.14 **Viscosity**
not applicable

10. **STABILITY AND REACTIVITY**

10.1 **Conditions to avoid**
Protect from light and heat.

11. **TOXICOLOGICAL INFORMATION**

11.1 **Acute toxicity**
LD 50 (rat, oral) Bis-GMA >5000 mg/kg

11.2 **Primary irritation**
Frequent contact with skin may cause irritation.
May cause irritation in contact with eye.

11.5 **Human experience**
Single cases of allergic contact dermatitides have been reported.
The data mentioned above refer to Bis-GMA.

11.6 **Further information**
Avoid contact with the skin and eyes.
### 12. ECOLOGICAL INFORMATION

#### 12.1 Persistence and degradability

#### 12.1.1 Biological degradability
- OECD 3031 F, 28d 21%, not easily degradable. (Bis-GMA)

#### 12.4 Ecotoxicity effects

#### 12.4.1 Aquatic toxicity
- LD50 Poecilia Reticulata, OECD 203, 96h >100 mg/l (Bis-GMA)

#### 12.5 Further information
- Do not allow to enter soil, waterways or waste water.

### 13. DISPOSAL CONSIDERATIONS

The cured product may be disposed as the regular plastic waste. The uncured product may be cured with laboratory light or in the daylight.

### 14. TRANSPORT INFORMATION

#### 14.5 Air transport

#### 14.5.3 Further information
- Not a dangerous good within the meaning of transportation regulations.

### 15. REGULATORY INFORMATION

Not applicable.

### 16. OTHER INFORMATION

#### 16.1 Recommended use

#### 16.1.1 Expressed in writing
- The use is according to the user instructions to reinforce dental polymeric devices.

#### 16.4 Additional information available from
- Stick Tech Ltd
- P.O.Box 114
- FI-20521 TURKU
- FINLAND
- tel +358 2 4808 2500
- fax +358 2 241 0032

#### 16.5 Literary reference
- Material safety data sheets of the chemical providers and the present list of dangerous chemicals by the Finnish Ministry of Health are used to write this data sheet. Stick Tech Ltd believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability or completeness of the information. Stick Tech Ltd urges persons receiving this information to make their own determination as to the information’s suitability and completeness for their particular application.

Date 16.9.2005
There is an increasing concern of bisphenol-A (BPA) contamination in dental materials. Stick Tech Ltd is aware of the recent discussion about BPA and its possible adverse health effects.

Like many dental manufacturers, Stick Tech uses a chemical called bisphenol A-diglycidyl dimethacrylate in its products (everStick products, StickRESIN and StickFLOW). Bisphenol A-diglycidyl dimethacrylate is known as bis-GMA. bis-GMA and BPA are two different chemicals.

bis-GMA may contain trace amounts of BPA. Stick Tech uses bis-GMA supplied by Esstech Inc as raw material in everStick products. Esstech’s bis-GMA (product number X-950-0000) has been documented to have one of the lowest BPA concentrations in the industry: 2 ppm (see the attachment).

If Stick Tech’s everStick products would release their whole content of BPA during one day, which is never the case, the BPA expose would only be approximately 1/160 part of the amount allowed for an adult per day (0,05 mg BPA/kg body weight/day by European Food Safety Authority).

Based on overall biocompatibility assessments, everStick, Stick, StickRESIN and StickFLOW are safe for patients and for dental professionals for their intended use.

For additional information please contact R&D and Production Manager Eija Säilynoja eija.sailynoja@sticktech.com
TECHNOLOGY BULLETIN

BPA Update

THE ESSTECH ADVANTAGE
BisGMA, bisphenol A-glycidyl methacrylate is a common resin that carries trace amounts of BPA.

According to internal analyses, Esstech’s bisGMA, Product Code X-950-0000, has one of the lowest BPA concentrations in the industry.

NEW TECHNOLOGY
Esstech is constantly striving to provide customers with the most up-to-date and novel materials.

Contact us if you would like to discuss a certain material or to hear what we have in development.

EASE OF FORMULATION
To simplify formulations, X-950-0000 is available in pre-mixed solutions with Triethyleneglycol Dimethacrylate (TEGDMA).

- 50% bisGMA in TEGDMA is X-951-0050
- 80% bisGMA in TEGDMA is X-951-0080

BPA-FREE ALTERNATIVES
Esstech also offers resin “alternatives” that do not contain BPA.

X-850-0000, Urethane Dimethacrylate
- Cures to create a hard glassy surface
- Low color values
- Excellent compatibility with light cure systems

X-726-0000, Extended UDMA
- Increased flexibility
- Enhanced fracture toughness

Bisphenol A (BPA) carries with it various risks recognized by the National Toxicology Program.

*It is possible that high doses of bisphenol A during pregnancy and/or lactation can reduce survival, birth weight, and growth of offspring early in life. BPA has also been shown to have estrogenic effects.*

Visit www.esstechinc.com for more information.

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