

# MATERIAL SAFETY DATA SHEET

## 1. Identification of the substance or mixture and of the supplier

### 1.1 Product Name:

FL BOND II "PRIMER"

### 1.2 Company /Undertaking identification

Manufacturer's Name: **SHOFU INC.**

Address: 11 Kamitakamatsu-cho, Fukunine, Higashiyama-ku, Kyoto 605-0983, JAPAN

Phone: +81- 75- 561- 1112

Fax: +81- 75- 561- 2273

Section in Charge: Quality Assurance Section

Date Prepared 2011.10.25

### 1.3 Emergency Telephone Number

+81- 75- 561- 1112

## 2. Hazards identification

### GHS CLASSIFICATION

PHYSICAL HAZARDS	FLAMMABLE LIQUIDS	Category 2
	PYROPHORIC LIQUIDS	Not Classified
	SELF- HEATING SUBSTANCES AND MIXTURES	Not Classified
HEALTH HAZARDS	CORROSIVE TO METALS	Not Classified
	ACUTE TOXICITY- ORAL	Not Classified
	ACUTE TOXICITY- INHALATION(VAPOURS)	Not Classified
	ACUTE TOXICITY- INHALATION(DUST,MST)	Not Classified
	SKIN CORROSION/IRRITATION	Not Classified
	EYE DAMAGE/IRRITATION	Category 2A
	SENSITIZATION- RESPIRATORY	Category 1
	SENSITIZATION- SKIN	Category 1
	GERM CELL MUTAGENICITY	Category 1A
	CARCINOGENICITY	Not Classified
ENVIRONMENTAL HAZARD	TOXIC TO REPRODUCTION	Category 1A
	SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)	Not Classified
	SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE)	Category 1 (liver)
	HAZARDOUS TO THE AQUATIC ENVIRONMENT- ACUTE HAZARD	Category 2 (nerve)
	HAZARDOUS TO THE AQUATIC ENVIRONMENT- CHRONIC HAZARD	Not Classified
	HAZARDOUS TO THE AQUATIC ENVIRONMENT- CHRONIC HAZARD	Not Classified

The thing without mention is out of a classification object. Or cannot classify it.

### LABEL ELEMENTS

#### SYMBOL



#### SIGNAL WORD

Danger

#### HAZARD STATEMENTS

Highly flammable liquid and vapor  
May cause allergic skin reaction

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Causes serious eye irritation  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 May cause genetic defects  
 May damage fertility or the unborn child  
 Causes damage to organs through prolonged or repeated exposure(liver)  
 Warning May cause damage to organs through prolonged or repeated exposure(nerve)

**PRECAUTIONARY STATEMENTS****[Prevention]**

Obtain special instruction before use.  
 Do not handle until all safety precautions have been read and understood.  
 Wear protective gloves and eye/face protection.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Do not eat, drink or smoke when using this product.  
 Keep away from ignition sources such as heat/sparks/open flames- No smoking  
 Avoid exposing if necessary with a personal protection tool and a ventilator.  
 Contaminated work clothing should not be allowed out of the workspace.  
 Ground/Bond container and receiving equipment.  
 Keep container tightly closed.  
 Wash hands thoroughly after handling  
 Avoid release to the environment.

**[Response]**

If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptom concerning breath goes out, call a POISON CENTER to doctor.  
 If exposed or concerned, get medical advice/attention.  
 If you feel unwell, get medical advice/attention.  
 If on skin, wash with plenty of soap and water. If on skin, skin irritation, get medical advice/attention.  
 Take off immediately contaminated clothing  
 Wash contaminated clothing before reuse.

**[Storage]**

Store in a cool and dark area.  
 (Keep refrigerated when not in use)

**[Disposal]**

Dispose of contents and container in accordance with regulation.

**3.Composition/information on ingredients**

<i>Composition</i>	<i>%</i>	<i>Hazard type</i>
Ethanol [Cas No.64-17-5]	≅ 30	F
Methacrylic adhesive monomer		
Pure water [Cas No.7732-18-5]	≅ 50	
Others		

**4.First-aid measures**

*4.1 Eye contact* : Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do.

- 4.2 Skin contact :** Wash immediately with soap and plenty of water. If on skin, skin irritation, get medical advice/attention.
- 4.3 Ingestion :** Rinse mouth. Consult physician. Get medical advice/attention.
- 4.4 Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptom concerning breath goes out, call a POISON CENTER to doctor.

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### 5. Fire-fighting measures

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|---|---|
| <b>5.1 Suitable Extinguishing Media:</b>            | CO <sub>2</sub> , Dry chemical, Alcohol-resistant foam                          |
| <b>5.2 Extinguishing Media Should not be used :</b> | N/A   |
| <b>5.3 Special Exposure Hazards Arising</b>         | Easily flammable liquid in room temp.   |
| <b>5.4 Special Protective Equipment:</b>            | Wear fire protective cloth and self contained breathing apparatus if necessary. |

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### 6. Accidental release measures

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|---------------------------------------|---|
| <b>6.1 Personal Precautions:</b>      | Avoid eye contact. See section 8  |
| <b>6.2 Environmental Precautions:</b> | Send to approved treatment/disposal company or dispose according to local, state and federal regulations. |
| <b>6.3 Methods for Cleaning Up:</b>   | Wipe up and discard in a suitable container.  |

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### 7. Handling and storage

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|---------------------|---|
| <b>7.1 Handling</b> | Handle in a well ventilated place. Keep away from ignition source- No smoking. Avoid inhalation of grindings and prolonged skin contact with uncured resin. |
| <b>7.2 Storage:</b> | Store in a cool and dark area. (K) Store in a cool, dark and fireproof area.  |

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### 8. Exposure controls/personal protection

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- 8.1 Exposure limits:**
- (Ethanol)*
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|--------------|--|
| [ACGIH 2007] | 1000 ppm as TWA  |
| NIOSH REL :  | TWA 1000 ppm (1900 mg/m <sup>3</sup> )                                   |
| OSHA PEL :   | TWA 1000 ppm (1900 mg/m <sup>3</sup> )                                   |
| [DFG 2004]   | MAK : 500 ppm, 960 mg/m <sup>3</sup> ; Peak limitation category : II (2) |
- 8.2 Respiratory Protection:** Use local exhaust and protective gas mask for organic gas, if necessary.
- 8.3 Hand Protection:** Protective gloves (Latex, rubber or plastics gloves)
- 8.4 Eye Protection:** Safety goggles (May be required)
- 8.4 Skin Protection:** Not required

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### 9. Physical and chemical properties

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|---|----------------------------------|
| <b>9.1 Appearance/Odour/pH</b>          | Colorless liquid with sweet odor |
| <b>9.2 Boiling Point/Boiling Range:</b> | N/D                              |
| <b>9.3 Melting Point/Melting Range:</b> | N/D                              |
| <b>9.4 Flash point:</b>                 | 23 °C (close)                    |
| <b>9.5 Autoflammability:</b>            | N/D                              |
| <b>9.6 Explosive Properties:</b>        | N/D                              |
| <b>9.7 Oxidizing Properties:</b>        | N/D                              |
| <b>9.8 Vapour Pressure:</b>             | N/D                              |
| <b>9.9 Relative Density:</b>            | ≈ 1 (water=1)                    |

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9.10 Solubility: water solubility Soluble in all purport

## 10. Stability and reactivity

10.1 Stability:	Stable under recommended storage conditions.
10.2 Reactivity:	N/A
10.3 Condition to avoid:	Avoid excess heat, flame and other source of ignition. Direct sunlight and high temperature
10.4 Materials to avoid:	Strong oxidizing materials.

## 11. Toxicological information

(Ethanol)

Acute toxicity :

[Emergency Response Guidebook]

Vapors may cause dizziness or suffocation.

Inhalation of high concentration of vapor may cause irritation of the respiratory tract.

May cause effects on the central nervous system

Inhalation toxicity :

mouse	LC50	39 g/m <sup>3</sup> /4H
rat	LC50	20000 ppm/10H

Oral toxicity :

mouse	LD50	7500 mg/kg
rat	LD50	7060 mg/kg
rabbit	LD50	6300 mg/kg
human	TDLO	0.5 g/kg
human	LDLO	1400 mg/kg

Dermal toxicity :

rabbit	LDLO	20 g/kg
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Irritant properties :

[Emergency Response Guidebook]

Inhalation or contact with material may irritate or burn skin and eyes.

Irritating to the eyes.

Inhalation of high concentration of vapor may cause irritation of the eyes.

Irritant properties to skin :

rabbit	400 mg open ; MILD 20 mg/24H ; MODERATE
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Irritant properties to eyes :

rabbit	500 mg/24H ; MILD
rabbit	100 mg/4S rinse ; MODERATE

Allergenic and sensitizing effects :

Not available

Chronic toxicity :

Defats the skin.

May have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

Chronic ingestion of ethanol may cause liver cirrhosis.

Carcinogenic effects :

ACGIH- A4 ; Not classifiable as a human carcinogen.

[DFG 2004] MAK ; Carcinogen category : 5

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**12. Ecological information**

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Ecotoxicity :

Harmful to aquatic organisms.

Fish toxicity :

The lethal dose of fish : 9000 mg/l/24H (as Ethanol)

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**13. Disposal considerations**

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Dispose of contents/container to in accordance with local/regional/national/international regulations.

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**14. Transport information**

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UN Hazard Class: 3, Pack Group: II, (UN No: 1170 as Ethanol)

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**15. Regulatory information**

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Follow all regulations in your country.

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**16. Other information**

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This product is intended for use by dental professionals. (instrument/material)