



SAFETY DATA SHEET

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FL BOND II
BONDING AGENT
Printing date: September 3, 2019

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

- 1.1 Product identifier
Trade Name:
FL BOND II "BONDING AGENT"
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Dental material
Uses advised against: No further data
- 1.3 Details of the supplier of the safety data sheet
Company/Undertaking identification
Manufacturer's Name: **SHOFU INC.**
Address: 11 Kamitakamatsu-cho, Fukuine, Higashiyama-ku, Kyoto 605-0983, JAPAN
Phone: +81-75-561-1112
Fax: +81-75-275-4795
Section in Charge: Quality Assurance Section
- 1.4 Emergency Telephone Number
+81-75-561-1112

SECTION 2. Hazards identification

- 2.1 GHS Classification
HEALTH HAZARDS
EYE DAMAGE/IRRITATION Category 2A
SENSITIZATION-SKIN Category 1

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

- 2.2 Label elements
SYMBOL



HGS07

SIGNAL WORD Warning

HAZARD STATEMENTS

May cause allergic skin reaction
Causes serious eye irritation

PRECAUTIONARY STATEMENTS

[Prevention]

Do not handle until all safety precautions have been read and understood.
Wear protective gloves and eye/face protection.
Do not breathe mist/vapors.
Wash hands thoroughly after handling.

[Response]

IF IN EYES: Rinse cautiously with water for several minutes.



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Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

[Storage]

Store container tightly closed in cool/well-ventilated place.

[Disposal]

Dispose of contents and container in accordance with regulation.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3. Composition/information on ingredients

3.1 Chemical characterization: Mixtures

3.2 Description: -

3.3 Dangerous components:

2-Hydroxy Ethyl Methacrylate [Cas No.868-77-9] 10-20 %

Other component:

Glass powder [Cas No.65997-18-4] 30-40 %

UDMA [Cas No.72869-86-4] 20-30 %

TEGDMA [Cas No.109-16-0] 1-10 %

Others

3.4 Additional information: For the wording of the listed risk phrases refer to section 2

SECTION 4. First-aid measures

4.1 Description of first aid measures

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Skin contact: Wash immediately with soap and plenty of water. If on skin, skin irritation, get medical advice/attention.

Ingestion: Rinse mouth and seek medical advice if necessary.

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 or doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5. Fire-fighting measures

5.1 Extinguishing Media:

Foam, CO₂, Powder, Dry sand

5.2 Special hazards arising from the substance or mixture:

Fire may produce irritating, corrosive and/or toxic gases.



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- 5.3 Advice for firefighters:
Wear fire protective cloth and self-contained breathing apparatus, if necessary.

SECTION 6. Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:
Avoid contact with eyes and skin.
- 6.2 Environmental Precautions:
Send to approved treatment/disposal company or dispose according to local, state and federal regulations.
- 6.3 Methods and material for containment and cleaning Up:
Wipe up and discard in a stable container.
- 6.4 Reference to other section:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7. Handling and storage

- 7.1 Precautions for safe handling:
Avoid prolonged skin contact with uncured resin.
- 7.2 Conditions for safe storage, including any incompatibilities:
Store in a cool and dark area.(Keep refrigerated when not in use)
- 7.3 Specific end use(s):
No further relevant information available.

SECTION 8. Exposure controls/personal protection

- 8.1 Control parameters:
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- 8.2 Exposure controls:
Respiratory Protection:
- Skin Protection: Hand Protection
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.



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- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:
Butyl rubber, BR
Nitrile rubber, NBR

Eye Protection: Safety goggles

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance/Odor/Colour:	Viscous liquid with sweet odor from acrylate.
Odour threshold	Not determined.
pH	Not determined.
Melting point/freezing point	Not determined.
Boiling Point:	Not determined.
Flash point:	113 °C
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative Density:	1.5 (water=1)
Solubility: water solubility	Insoluble
Partition coefficient: n-octanol/water	Not determined.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

9.2 Other information

No further relevant information available.

SECTION 10. Stability and reactivity

10.1 Reactivity:

No further relevant information available.

10.2 Chemical stability:

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Condition to Avoid:

Excessive heat (high temperature), open flames, ignition source, and exposure to sunlight.

10.5 Incompatible materials:

Strong oxidizing materials.

10.6 Hazardous Decomposition Products:

None under normal conditions of storage and use.



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SECTION 11. Toxicological information

11.1 Information on toxicological effects:

Acute toxicity: 2-Hydroxyethyl methacrylate;
Oral rat LD50 > 4000 mg/kg
Dermal rabbit LD50 > 3000 mg/kg

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Eye damage/irritation: Eye Irrit.2A; H319 Causes serious eye irritation.

Sensitization to the respiratory tract:
Based on available data, the classification criteria are not met.

Skin sensitization: Skin Sens.1; H317 May cause allergic skin reaction.

Germ cell mutagenicity/Genotoxicity:
Based on available data, the classification criteria are not met.

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

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure):
Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure):
Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12. Ecological information

12.1 Toxicity:
No further relevant information available.

12.2 Persistence and degradability:
No further relevant information available.

12.3 Bioaccumulative potential:
No further relevant information available.

12.4 Mobility in soil:
No further relevant information available.

12.5 Results of PBT and vPvB assessment:
Not applicable.

12.6 Other adverse effects:
No further relevant information available.

SECTION 13. Disposal considerations

13.1 Waste treatment methods:
Dispose of contents/container to in accordance with local/regional/national/international regulations.

SECTION 14. Transport information

14.1 UN number: Void

14.2 UN proper shipping name: Void

14.3 Transport hazard class(es): Void

14.4 Packing group: Void

14.5 Environmental hazards: No further relevant information available.



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- 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 informati

Follow all regulations in your country.

SECTION 16. Other information

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

NFPA ratings for USA (scale 0-4)

2-Hydroxy Ethyl Methacrylate;



Heaith = 1
Fire = 1
Reactivity = 1

HMIS-Ratings (Scale 0-4)

2-Hydroxy Ethyl Methacrylate;

Health Hazard	1
Fire Hazard	1
Reactivity	1

Heaith = 1
Fire = 1
Reactivity = 1

Relevant phrases:

- H317 May cause allergic skin reaction.
H319 Causes serious eye irritation.

Abbreviations and acronyms:

CAS: Chemical Abstracts Service (division of the American Chemical Society)
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative