SAFETY DATA SHEET

Printing date: December 19, 2022

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

1.1 Product identifier

Trade Name:

BeautiBond Xtreme

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 date 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

PHYSICAL HAZARDS

FLAMMABLE LIQUIDS	Category 2

HEALTH HAZARDS

EYE DAMAGE/IRRITATION	Category 2A
TOXIC TO REPRODUCTION	Category 2
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)	Category 3 (respiratory tract irritation, narcotic effects)
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE)	Category 1 (central nervous system, respiratory organ, gastrointestinal tract)

2.2 Label elements

SYMBOL

GHS02 GHS07 GHS08

SIGNAL WORD Danger

HAZARD STATEMENTS

Highly flammable liquid and vapor.

Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness and dizziness.

Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure (central nervous system, respiratory organ, gastrointestinal tract).

PRECAUTIONARY STATEMENTS

[Prevention]
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not eat, drink or smoke when using this product.
Keep container tightly closed.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
[Response]
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
[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 Ingredients and composition:

Component	CAS-No	Weight %
Acetone	67-64-1	40-49
Water	—	
Bis-GMA	1565-94-2	
TEGDMA	109-16-0	
Others	—	

3.3 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, CO_2, Powder, Dry sand

5.2 Special hazards arising from the substance or mixture:

Easily flammable liquid in room temp.

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

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:

Attention should be given not to cause damage to the environment by flowing of spillage to rivers.

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:

Handle in a well ventilated place.

Keep away from open flames, sparks and sources of heat. No smoking.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool and dark area (1-25 ºC) with container tightly closed.

Separated from strong oxidants.

7.3 Specific end use(s):

No further relevant information available.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters:

Exposure limits:

	ACGIH (TLV)	NIOSH	OSHA-Final PELs
Acetone	250 ppm TWA 500 ppm STEL	250 ppm TWA (590 mg/m^3 TWA) 2500 ppm IDLH	1000 ppm TWA 2400 mg/m^3 TWA

8.2 Exposure controls:

Respiratory Protection:

Not required (use protective gas mask for organic gas, if necessary)

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.

- 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:	Pale yellow liquid with characteristic odor.
Odour threshold:	Not determined.
pH:	Not determined.
Melting point/freezing point:	Not determined.
Boiling point:	Not determined.
Flash point:	-20 ºC (closed)
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:	0.95 (water=1)
Solubility: water solubility	Soluble
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.

SECTION 11. Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	Acetone;	Oral	rat	LD50	5800 mg/kg
		Dermal	rabbit	LD50	> 7400 mg/kg
		Inhalation	rat	LC50	32000 pm/4H

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

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: Repr.2; H361 Suspected of damaging fertility or the unborn child.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure):

STOT SE 3; H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure):
STOT RE 1; H372 Causes damage to organs through prolonged or repeated exposure (central nervous system, respiratory organ, gastrointestinal tract).

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

11.2 Information on other hazards:
No further relevant information available.

SECTION 12. Ecological information

12.1 Toxicity:
Acetone:
Fish toxicity: Fathead minnow; LC50/96H >100mg/L

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:	1090
14.2	UN proper shipping name:	Acetone, solution
14.3	Transport hazard class (es):	3 Flammable liquids.
14.4	Packing group:	II
14.5	Environmental hazards:	No further relevant information available.
14.6	Special precautions for user:	Not applicable.
14.7	Maritime transport in bulk according to IMO instruments:	Not applicable.

SECTION 15. Regulatory information

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)

Heaith = 1
Fire = 3
Reactivity = 0

HMIS-Ratings (Scale 0-4)

Health Hazard	1
Fire Hazard	3
Reactivity	0

Heaith = 1
Fire = 3
Reactivity = 0

Relevant phrases:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure (central nervous system, respiratory organ, gastrointestinal tract).

Abbreviations and acronyms:

CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative