



# SAFETY DATA SHEET

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

- 1.1 Product identifier  
Trade Name:  
**CERARESIN BOND "BOND I"**
- 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
- |   |   |
|---|---|
| PHYSICAL HAZARDS  |   |
| FLAMMABLE LIQUIDS   | Category 2  |
| HEALTH HAZARDS  |   |
| ACUTE TOXICITY-INHALATION(DUST,MIST)                        | Not Classified  |
| EYE DAMAGE/IRRITATION                                       | Category 2A   |
| TOXIC TO REPRODUCTION                                       | Category 1A   |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)   | Category 3 (respiratory tract irritation, narcotic effects) |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE) | Category 1 (liver)<br>Category 2 (central nervous system)   |

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

- 2.2 Label elements  
SYMBOL



GHS02 GHS07 GHS08

HAZARD-DETERMINING COMPONENTS OF LABELLING

Ethanol

SIGNAL WORD Danger



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CERARESIN BOND  
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## HAZARD STATEMENTS

Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause respiratory irritation  
May cause drowsiness and dizziness  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure (liver)  
May cause damage to organs through prolonged or repeated exposure (central nervous system)

## 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 dust/vapors.  
Do not eat, drink or smoke when using this product.  
Keep away from ignition sources such as heat/sparks/open flames-No smoking.  
Use only outdoors or in a well-ventilated area.  
Keep container tightly closed.  
Wash hands thoroughly after handling.

### [Response]

If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Get medical advice/attention if you feel unwell.  
IF ON SKIN: Wash with plenty of water and soap.  
If in eyes, rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do.  
If eye irritation persists, 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: Mixture of substances listed below with nonhazardous additions.

3.3 Dangerous components:

Ethanol [Cas.No. 64-17-5] 95-99 %

Silane coupling agent

Others

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



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## 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<sub>2</sub>, 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:

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:

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 with container tightly closed.

### 7.3 Specific end use(s):

No further relevant information available.



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## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters:

Exposure limits:

Ethanol [Cas No.64-17-5]:

[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)

OES() Long-term value:

1920 mg/m<sup>3</sup>, 1000 ppm

### 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:

Colorless transparent liquid with alcohol odor

Odour threshold

Not determined.

pH

Not determined.

Melting point/freezing point

Not determined.

Boiling Point:

≈ 80 °C

Flash point:

16 °C (closed)

Evaporation rate

Not determined.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Not determined.



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Vapour pressure	Not determined.
Vapour density	Not determined.
Relative Density:	0.8 (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: | Ethanol; Oral | rat | LD50               | 6.2-17.8 g/kg                |
|                 |               |     | Inhalation (vapor) |                              |
|                 |               | rat | LC50               | 20000 ppm/10H (31600 ppm/4H) |
|                 |               |     | Inhalation (mist)  |                              |
|                 |               | rat | LC50               | 63000 ppm/4H (118 mg/L)      |
- 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: Ethanol;  
ACGIH-A4; Not classifiable as a human carcinogen.  
[DFG 2004] MAK; Carcinogen category: 5
- Reproductive toxicity: Repr. 1A; H360 May damage fertility or the unborn child.
- Effects on or via lactation: Lack of data.



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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. (liver)  
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system)

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: 1170
- 14.2 UN proper shipping name: ETHANOL, 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 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)



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## NFPA ratings for USA (scale 0-4)

Ethanol;



Health = 2  
Fire = 3  
Reactivity = 0

## Relevant HMIS-Ratings (Scale 0-4)

Ethanol;

Health Hazard	2
Fire Hazard	3
Reactivity	0

Health = 2  
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 and dizziness.
- H360 May damage fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure. (liver)
- H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system)

## 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