



# SAFETY DATA SHEET

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ZIRCONOMER IMPROVED  
Liquid  
Printing date: November 7, 2022

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

- 1.1 Product identifier  
Trade Name:  
**ZIRCONOMER IMPROVED "Liquid"**
- 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  
SKIN CORROSION/IRRITATION Category 1  
EYE DAMAGE/IRRITATION Category 1

- 2.2 Label elements  
SYMBOL:



GHS05

SIGNAL WORD: Danger

### HAZARD STATEMENTS

Causes severe skin burns and eye damage

### PRECAUTIONARY STATEMENTS

#### [Prevention]

Obtain special instruction before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

#### [Response]

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.



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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

[Storage]

Store in a cool and dark area.

[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 %
Polyacrylic acid solution	9003-01-4	90-99
Tartaric acid	87-69-4	1-10

### 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:

Powder, Alcohol-resistant foam, Carbon dioxide, Dry sand

### 5.2 Special hazards arising from the substance or mixture:

If it is not dangerous, the container is moved from the fire district.

### 5.3 Advice for firefighters:

Wear fire protective cloth and self-contained breathing apparatus, if necessary.



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## SECTION 6. Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:  
It enters and is prohibited other than parties concerned.  
Wears an appropriate protection tool.
- 6.2 Environmental Precautions:  
Attention should be taken for the spillage not to flow into sewages, drains, and low ground.
- 6.3 Methods and material for containment and cleaning Up:  
Wipe up and discard in a suitable 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:  
Wears an appropriate protection tool, and avoids eyes, the cutaneous contacts.  
Handling of the product exclusively restrict to dental specialists, according to the instruction for use.
- 7.2 Conditions for safe storage, including any incompatibilities:  
Store in a cool and dry place out of direct sunlight.
- 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:  
Dust mask
- 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 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 or pale yellow transparent liquid.
Odour threshold	Not determined.
pH	Not determined.
Melting point/freezing point	Not determined.
Boiling Point:	≈ 100 °C
Flash point:	Not determined.
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:	Not determined.
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:

Avoid direct sunlight and high temperature.

### 10.5 Incompatible materials:

No further relevant information available.



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## 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: Tartaric acid;  
Oral rabbit LDLo 5000 mg/kg  
Skin corrosion/irritation: Skin Corr. 1; H314 Causes severe skin burns and eye damage.  
Eye damage/irritation: Eye Dam. 1; H314 Causes severe skin burns and eye damage.  
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: 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.

### 11.2 Information on other hazards:

No further relevant information available.

## 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.



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## 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. |
| 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 information

Follow all regulations in your country.

## SECTION 16. Other information

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

Relevant phrases:

H314 Causes severe skin burns and eye damage.

Abbreviations and acronyms:

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LDLo: Lethal Dose Lowest

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative