



SAFETY DATA SHEET

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RESIN GLAZE
Liquid

Printing date: January 25, 2017

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

- 1.1 Product identifier
Trade Name:
RESIN GLAZE "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
- | | |
|---|---|
| PHYSICAL HAZARDS | |
| FLAMMABLE LIQUIDS | Category 2 |
| PYROPHORIC LIQUIDS | Not Classified |
| HEALTH HAZARDS | |
| ACUTE TOXICITY-ORAL | Not Classified |
| ACUTE TOXICITY-DERMAL | Not Classified |
| ACUTE TOXICITY-INHALATION(VAPOURS) | Not Classified |
| SKIN CORROSION/IRRITATION | Category 2 |
| EYE DAMAGE/IRRITATION | Category 2A |
| SENSITIZATION-RESPIRATORY | Category 1 |
| SENSITIZATION-SKIN | Category 1 |
| GERM CELL MUTAGENICITY | Not Classified |
| CARCINOGENICITY | Not Classified |
| 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) |
| ENVIRONMENTAL HAZARD | |
| HAZARDOUS TO THE AQUATIC ENVIRONMENT-ACUTE HAZARD | Category 3 |
| HAZARDOUS TO THE AQUATIC ENVIRONMENT-CHRONIC HAZARD | Not Classified |
- The thing without mention is out of a classification object. Or cannot classify it.

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2.2 Label elements

SYMBOL:



GHS02 GHS08 GHS07

HAZARD-DETERMINING COMPONENTS OF LABELLING

Methyl Methacrylate

SIGNAL WORD: Danger

HAZARD STATEMENTS

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

May cause drowsiness and dizziness.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure. (central nervous system, respiratory organ)

Harmful to aquatic life

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.

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.

Avoid release to the environment.

[Response]

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

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.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Rinse mouth.

Call a POISON CENTER or doctor /physician if you feel unwell.

[Storage]

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

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[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:

Methyl Methacrylate [Cas.No.80-62-6] 30-50 %

Multifunctional monomer

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:

CO₂, Dry chemical, Foam

5.2 Special hazards arising from the substance or mixture:

Easily flammable liquid in room temp.

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.



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- 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.
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:
Methyl Methacrylate; ACGIH 50 ppm TWA
100 ppm STEL
- 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.
 - 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

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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 liquid with sweet odor
Odour threshold	Not determined.
pH	Not determined.
Melting point/freezing point	Not determined.
Boiling Point:	Not determined.
Flash point:	14 °C (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:	1.14 (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:

Avoid direct sunlight, excess heat, flame and other source of ignition.

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: Methyl Methacrylate;



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	Oral	rat	LD50	7900 mg/kg
	Dermal	rabbit	LD50	> 5000 mg/kg
	Inhalation	rat	LC50	7093 ppm/4H(Vapor)
Skin corrosion/irritation:	H315 Causes skin irritation.			
Eye damage/irritation:	H319 Causes serious eye irritation.			
Sensitization to the respiratory tract:	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.			
Skin sensitization:	H317 May cause an allergic skin reaction.			
Germ cell mutagenicity/Genotoxicity:	H361 Suspected of damaging fertility or the unborn child.			
Carcinogenicity:	Methyl Methacrylate; Classified by IARC as group 3, ACGIH as group A4 EPA class E			
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):	H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.			
Specific target organ toxicity (repeated exposure):	H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system, respiratory organ)			
Aspiration hazard:	Based on available data, the classification criteria are not met.			

SECTION 12. Ecological information

12.1 Toxicity:

Methyl Methacrylate;

Organism Toxicity:

For Daphnia magna acute toxicity EC50/48hr 69mg/L.

Persistence/degradability:

Readily biodegradable. Degradability by BOD is 94.4%.

Bioaccumulation:

Bioaccumulation is not expected to be significant. Log Kow=1.38.

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.



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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: | 1247 |
| 14.2 UN proper shipping name: | Methyl methacrylate monomer, stabilized |
| 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: | Warning: Flammable liquids. |
| 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)

Relevant phrases:

- | | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. (central nervous system, respiratory organ) |
| H402 | Harmful to aquatic life. |

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