



# SAFETY DATA SHEET

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

- 1.1 Product identifier  
Trade Name:  
**HC Primer**
- 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 (VAPOURS)                         | Category 4  |
| SKIN CORROSION/IRRITATION                                   | Category 2  |
| EYE DAMAGE/IRRITATION                                       | Category 2A   |
| SENSITIZATION-RESPIRATORY                                   | Category 1  |
| SENSITIZATION-SKIN  | Category 1  |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)   | Category 1 (respiratory organ)<br>Category 3 (narcotic effects) |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE) | Category 1 (nervous system,<br>respiratory organ)               |
- ENVIRONMENTAL HAZARD
- |   |            |
|---|------------|
| HAZARDOUS TO THE AQUATIC ENVIRONMENT-ACUTE HAZARD | Category 3 |
|---|------------|

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

- 2.2 Label elements  
SYMBOL:



GHS02 GHS07 GHS08



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SIGNAL WORD: Danger

## HAZARD STATEMENTS

Highly flammable liquid and vapor  
Causes skin irritation  
May cause allergic skin reaction  
Causes serious eye irritation  
Harmful if inhaled  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause drowsiness or dizziness  
Causes damage to organs (respiratory organ)  
Causes damage to organs through prolonged or repeated exposure (nervous system, respiratory organ)

## PRECAUTIONARY STATEMENTS

[Prevention]

Do not handle until all safety precautions have been read and understood.  
Wear protective gloves and eye/face protection.  
Do not eat, drink or smoke when using this product.  
Do not breathe dust/mist/vapors.  
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 ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
If skin irritation or rash occurs: Get medical advice/attention.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
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.  
Take off contaminated clothing and wash it before reuse.  
Get medical advice/attention if you feel unwell.

[Storage]

Store in a cool and dark area.(Keep refrigerated when not in use)

[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.

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## 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]	10-20 %
Acetone [Cas.No.67-64-1]	10-20 %
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, 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.



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## 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.(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:

Exposure limits:

	ACGIH	NIOSH	OSHA-Final PELs
Acetone	500 ppm TWA 750 ppm STEL	250 ppm TWA (590mg/m <sup>3</sup> TWA) 2500 ppm IDLH	1000 ppm TWA 2400 mg/m <sup>3</sup> TWA
Methyl Methacrylate	50 ppm TWA 100 ppm STEL		

### 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



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## 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:	-3.5 °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:	0.95 (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:	Acute Tox. 4; H332 Harmful if inhaled.			
	Acetone;			
	Inhalation	rat	LC50	75.8 mg/L
	Oral	rat	LD50	> 5000 mg/kg
	Dermal	rabbit	LD50	> 5000 mg/kg



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	Methyl Methacrylate;
	Oral rat LD50 7900 mg/kg
	Dermal rabbit LD50 > 5000 mg/kg
	Inhalation rat LC50 7093 ppm/4H(Vapor)
Skin corrosion/irritation:	Skin Irrit. 2 ; H315 Causes skin irritation.
Eye damage/irritation:	Eye Irrit. 2A; H319 Causes serious eye irritation.
Sensitization to the respiratory tract:	
	Resp. Sens. 1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization:	Skin Sens. 1; H317 May cause an allergic skin reaction.
Germ cell mutagenicity/Genotoxicity:	
	Based on available data, the classification criteria are not met.
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):	
	STOT SE 1; H370 Causes damage to organs. (respiratory organ)
	STOT SE 3;H336 May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure):	
	STOT RE 1; H372 Cause damage to organs through prolonged or repeated exposure. (nervous system, respiratory organ)
Aspiration hazard:	Based on available data, the classification criteria are not met.

## SECTION 12. Ecological information

### 12.1 Toxicity:

#### Acetone:

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

#### 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.

## 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  
 14.3 Transport hazard class(es): 3  
 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)

NFPA ratings for USA (scale 0-4)

Methyl Methacrylate;



Health = 2  
Fire = 3  
Reactivity = 2

Acetone;



Health = 1  
Fire = 3  
Reactivity = 0

HMIS-Ratings (Scale 0-4)

Methyl Methacrylate;

Health Hazard	2
Fire Hazard	3
Reactivity	2

Health = 2  
Fire = 3  
Reactivity = 2

Acetone;

Health Hazard	1
Fire Hazard	3
Reactivity	0

Health = 1  
Fire = 3  
Reactivity = 0

Relevant phrases:

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



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- H336 May cause drowsiness or dizziness.
- H370 Causes damage to organs. (respiratory organ)
- H372 Cause damage to organs through prolonged or repeated exposure. ( 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

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