

MATERIAL SAFETY DATA SHEET

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

1.1 Product Name:

QUICK RESIN O "POWDER"

1.2 Company /Undertaking identification

Manufacturer's Name: **SHOFU INC.**

Address: 11 Kamitakamatsu-cho, Fukunine, Higashiyama-ku, Kyoto 605-0983 ,JAPAN

Phone: +81-75-561-1112

Fax: +81-75-561-2273

Section in Charge: Quality Assurance Section

Date Prepared: 2012.7.18

1.3 Emergency Telephone Number

+81-75-561-1112

2 Hazards identification

GHS CLASSIFICATION

It is not possible to classify it.

LABEL ELEMENTS

SYMBOL —
 SIGNAL WORD —
 HAZARD STATEMENTS —

Other hazards out of classification.

Fine dust may cause dust inhalation during handling. Monomer vapor, given off at higher temperatures, may cause nausea, headache or dizziness.

Fine particles or vapor of monomers may irritate eyes or mucous membrane.

Fine dust may irritate skin. May cause eruption in case of allergic persons.

PRECAUTIONARY STATEMENTS

[Prevention]

Obtain special instruction before use.

Wear protective gloves and eye/face protection.

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

Keep away from ignition sources such as heat/sparks/open flames

- No smoking

Wash hands thoroughly after handling

[Response]

If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing

If you feel un-well, get medical advice/attention.

If in eyes, rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do.

[Storage]

Store in a dark and cool place indoors, with containers tightly closed.

[Disposal]

Dispose of contents and container in accordance with regulation.

3.Composition/information on ingredients

	%
PMMA [Cas.No.9011-14-7]	≤ 40

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Copolymer of methacrylate [Cas.No.25685- 29- 4]	≥ 60
Benzoyl peroxide [Cas.No.94- 36- 0]	< 1
Others	

Hazardous ingredients are not include.

4. First-aid measures

- 4.1 Eye contact :** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.
- 4.2 Skin contact :** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
- 4.3 Ingestion :** Do not induce vomiting. Get medical aid.
- 4.4 Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

5. Fire- fighting measures

- 5.1 Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam
- 5.2 Extinguishing Media Should not be used:** N/A
- 5.3 Special Exposure Hazards Arising** Irritant gases and fumes may emit.
- 5.4 Special Protective Equipment:** Wear fire protective cloth and self-contained breathing apparatus, if necessary.

6. Accidental release measures

- 6.1 Personal Precautions:** See section 8
- 6.2 Methods for Cleaning Up:** Sweep up carefully and completely to prevent slipping accident.

7. Handling and storage

- 7.1 Handling** Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
- 7.2 Storage:** Store under normal dry conditions. Keep containers closed.

8. Exposure controls/personal protection

- 8.1 Exposure limits:** N/A
- 8.2 Respiratory Protection:** Dust mask
- 8.3 Hand Protection:** Latex or rubber gloves
- 8.4 Eye Protection:** Safety goggles (May be required)
- 8.5 Skin Protection:** Not required. General protective overalls.

9. Physical and chemical properties

- 9.1 Appearance/Odour** White odorless powder
- 9.2 Boiling Point/Boiling Range:** N/D
- 9.3 Melting Point/Melting Range:** N/D
- 9.4 Flash point:** N/D
- 9.5 Auto flammability:** N/D
- 9.6 Explosive Properties:** N/D
- 9.7 Oxidizing Properties:** N/D
- 9.8 Vapour Pressure:** N/D
- 9.9 Relative Density:** ≈ 1.2

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9.10 Solubility: water solubility Insoluble

10.Stability and reactivity

- 10.1 Stability: Stable under normal temperatures and pressures.
- 10.2 Condition to Avoid: Excessive heat (high temperature), open flames, ignition source, and exposure to Sunlight.
- 10.3 Materials to Avoid: Strong acid and oxidizing materials.
- 10.4 Hazardous Decomposition Products:
At elevated temperatures decomposition may occur resulting in the release of smoke, carbon dioxide, carbon monoxide and other toxic gases.

11.Toxicological information

No information

12.Ecological information

No information

13.Disposal considerations

Dispose of contents/container to in accordance with local/regional/national/international regulations.

14.Transport information

Airline restriction information ; It doesn't correspond
UN No. ; It doesn't correspond
Sea restriction information ; It doesn't correspond
UN No. ; It doesn't correspond

15.Regulatory information

Follow all regulations in your country.

16.Other information

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

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2. Hazards identification

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)
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.

LABEL ELEMENTS

SYMBOL



SIGNAL WORD

Danger

HAZARD STATEMENTS

Highly flammable liquid and vapor

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Causes skin irritation
 May cause allergic skin reaction
 Causes serious eye irritation
 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 unborn child
 Causes damage to organs through prolonged or repeated exposure (central nervous system, respiratory)
 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 dust/fume/gas/mist/vapours/spray.
 Do not eat, drink or smoke when using this product.
 In case of inadequate ventilation wear respiratory protection.
 Keep away from ignition sources such as heat/sparks/open flames- No smoking
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing should not be allowed out of the workspace.
 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.
 If eye irritation persists, get medical advice/attention.
 If on skin, wash with plenty of soap and water. If on skin, skin irritation, get medical advice/attention.
 If inhaled, 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 to doctor.
 If swallowed, rinse mouth. Get medical advice/attention.

[Storage]

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

[Disposal]

Dispose of contents and container in accordance with regulation.

3. Composition/information on ingredients

	%	<i>Hazardous</i>
Methyl Methacrylate [Cas No.80- 62- 6]	>95	F, Xi
N,N- Dimethyl- P- Toluidine [Cas No.99- 97- 8]	< 2	
Ethylen glycol dimethacrylate [Cas No.97- 90- 5]	< 3	
Dye, Others	< 1	

4. First-aid measures

4.1 Eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and

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easy to do. If eye irritation persists, get medical advice/attention.

4.2 Skin contact : Wash immediately with plenty of water and soap. If on skin, skin irritation, get medical advice/attention.

4.3 Ingestion : Rinse mouth. Get medical advice/attention.

4.4 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 to doctor.

5.Fire-fighting measures

5.1 Suitable Extinguishing Media : Use dry chemical, foam, carbon dioxide or dry sand to extinguish fire.

5.2 Extinguishing Media Should not be used :

Do not use water in a jet. Doing so may be in danger the spread fire.

5.3 Special Exposure Hazards Arising : Nothing special item

5.4 Special Protective Equipment: Wear fire protective cloth and self-contained breathing apparatus if necessary.

6.Accidental release measures

6.1 Personal Precautions: Avoid eye and skin contact. See section 8

6.2 Environmental Precautions: Send to approved treatment/disposal company or dispose according to local, state and federal regulations.

6.3 Methods for Cleaning Up: Absorb with suitable absorbent (e.g. paper towel, cloth, dry sand, saw dust and vermiculite) and discard in a suitable container.

7.Handling and storage

7.1 Handling Avoid inhalation of grindings and prolonged skin contact.

Handle in a well ventilated place. Keep away from sources of ignition- No smoking
Do not empty into drain.

7.2 Storage: Store in a well ventilated dark area, keep away from ignition sources.
Take precautionary measures against static discharge.

8.Exposure controls/personal protection

8.1 Exposure limits:

Methyl Methacrylate:

- OSHA Permissible Exposure Limit (PEL): 100 ppm (TWA)

- ACGIH Threshold Limit Value (TLV): 50 ppm (TWA), 100 ppm (STEL), Sensitizer,
A4 - Not Classifiable as a Human Carcinogen.

8.2 Respiratory Protection: Use local exhaust and protective gas mask for organic gas, if necessary.

8.3 Hand Protection: Latex or rubber gloves

8.4 Eye Protection: Safety goggles (May be required)

8.5 Skin Protection: Not required (Observe normal care when working with chemicals.)

9.Physical and chemical properties

9.1 Appearance/Odor/pH Red color liquid with perceptible sweet odor

9.2 Boiling Point/Boiling Range: ≈ 100°C

9.3 Melting Point/Melting Range: N/D

9.4 Flash point: 10.8°C (closed)

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9.5 Auto flammability:	≈ 420 °C
9.6 Explosive Properties:	N/D
9.7 Oxidizing Properties:	N/D
9.8 Vapour Pressure:	N/D
9.9 Relative Density:	≈ 0.96 (water=1)
9.10 Solubility: water solubility	Slightly soluble

10. Stability and reactivity

10.1 Stability:	A polymerization inhibitor has been added to the product to stabilize it under normal conditions of handling
10.2 Reactivity:	Very flammable liquid and the vapor mixed with air generate explosive gas. Polymerization reaction generate large quantity heat and quick reaction may cause explosion.
10.3 Condition to avoid	Sunlight, Heating, High temperature.
10.4 Materials to avoid	Acid, Alkali, Oxidation- related material.

11. Toxicological information

Methyl Methacrylate:

Acute Oral Toxicity :	LD50(Rat)	7900 mg/kg
Acute Dermal Toxicity :	LD50(Rabbit)	> 5000 mg/kg
Acute Inhalation Toxicity :	LC50(Rat)	7093 ppm/ 4H(Vapor)
Carcinogenicity :	Classified by IARC as group 3 ACGIH as group A4 EPA class E	

12. Ecological information

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.

13. Disposal considerations

Dispose of contents/container to in accordance with local/regional/national/international regulations.

14. Transport information

UN/ID no. 1247, (Haz Class 3 Pack Group II) as methylmethacrylate monomer, inhibited

15. Regulatory information

Follow all regulations in your country.

16. Other information

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