



## Dual Cure Resin Cement

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Dual Cure Resin Cement

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Dual Cure Resin Cement is a dental luting system designed for cementation of all sorts of dental restorations including crowns, bridges, inlays/onlays, veneers, dental posts and other restorations made from materials of metals/alloys, metal-ceramic, all-ceramic and/or porcelain, composites, and their combinations.

#### 1.3. Details of the supplier of the safety data sheet

**Company Name:** Rizhao HuGe Biomaterials Co., Ltd.  
**Address:** 2 North Zhaoyang Road, Donggang District  
**City, State, Zip Code:** Rizhao City, Shandong Province, China, 276800  
**Telephone:** Tel: 86-633-2277268, Fax: 86-633-2277298  
**Email address:** marketing@hugedental.com  
**Website:** www.hugedental.com

### SECTION 2: Hazards identification

#### 2.1 Health Hazard

##### Emergency Overview

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Methacrylate resin odor, Opaque, tooth-colored paste of various shades

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** May cause allergic skin reaction. This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

**Risk identification:** None known

##### Special risks for human

**Beings and environment:** None known

**Classification:** Not hazardous. Those people known to be allergic to dental methacrylate resins should avoid the use of this product.

### SECTION 3: Composition/information on ingredients

Element	CAS#	Exposure Limit (mg/m <sup>3</sup> )	
		OSHA PEL	ACGIH TLV
UDMA	74389-53-0	NE	NE
TEGDMA	109-16-0	NE	NE
EBPADMA	41637-38-1	NE	NE
Photo-initiators	mixture	NE	NE
Benzoyl Peroxide	94-36-0	5	5
Silane treated barium glass	None	N/A	N/A
Silane treated zirconium-silicate	None	N/A	N/A
Silica (amorphous)	69012-64-2	NE	2R
Polymerization additives	Various	NE	NE



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**Chemical characteristics:** paste-paste form of dual curable mixtures of dental methacrylate resins comprising of EBPADMA, UDMA, TEGDMA; inorganic fillers of silane-treated barium-boron-silicate glasses and zirconium-silicate, amorphous silica; with additives such as photo- and chemical curing initiators, stabilizers, opacifying and inorganic coloring agents.

### SECTION 4: First aid measures

#### 4.1 General Information:

<b>After skin contact:</b>	Wash with plenty of soap and water.
<b>After eye contact:</b>	Rinse with plenty of water and contact an ophthalmologist.
<b>After swallowing:</b>	Seek medical advice immediately.

### SECTION 5: Firefighting measures

<b>Extinguishing media:</b>	CO <sub>2</sub> , water, foam, dry chemical
<b>Protective equipment:</b>	Common gear for small commodities.

### SECTION 6: Accidental release measures

<b>Personal precautions:</b>	Avoid skin contact, wear protective equipment.
<b>Environmental precautions:</b>	Absorb with inert material. Collect in closed containers and dispose of as recommended.
<b>Methods for cleaning up:</b>	Dispose according to Federal, State and local regulations.
<b>Additional information:</b>	Unknown.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid contact with skin and eyes. Use at room temperature. Practice good hygienic measures.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep container closed; store between 2°C~25°C. Refrigeration when not in use is recommended; Store away from direct sunlight, oxidizing and/or reducing agents or other incompatible matters.

### SECTION 8: Exposure controls/personal protection

<b>Personal protective equipment:</b>	Protective gloves, goggles are recommended.
<b>General Measure of protection:</b>	Normal hygienic measures.
<b>Respiration:</b>	Not necessary
<b>Hands:</b>	Protective gloves.
<b>Eyes:</b>	OSHA approved goggles or glasses.

### SECTION 9: Physical and chemical properties

#### 9.1 Appearance:

<b>Form:</b>	Paste
<b>Color:</b>	Shaded base part, white catalyst part.
<b>Odor:</b>	Ester-like

#### 9.2 Information on change in the physical state

<b>Melting point/melting range:</b>	Unknown
<b>Boiling point/boiling range:</b>	Unknown
<b>Flash point:</b>	Unknown
<b>Auto-ignition temperature:</b>	Unknown
<b>Danger of explosion:</b>	Unlikely



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Density (combined):	Approximately 1.6 gm/cm <sup>3</sup>
Vapor pressure:	Unknown
pH (combined):	Unknown
Solubility in/miscibility with water:	Slightly
Contents of solvents:	None
Content of Solids (combined) :	≥ 58 % by weight

### SECTION 10 : Stability and reactivity

Incompatibility with other substances:	Stable. Avoid exposure the material to peroxide, amine and excessive heat.
Hazardous decomposition products:	Unknown.

### SECTION 11 : Toxicological information

This product has been found complying with ISO 10993 for complete biocompatibility assessments based on the criteria of the test protocols.

### SECTION 12 : Ecological information

General information:	Unknown
Classification of water endangerment:	Not determined

### SECTION 13 : Disposal considerations

Dispose in accordance with Federal, State and local regulations.

### SECTION 14 : Transport information

UN number:	None
class:	None
packaging group:	None
ocean harmful substances:	None
other relevant information:	Not classified as dangerous goods. Protect it against humidity .Store it away from food stuffs,acids,and bases.

### SECTION 15: Regulatory information

311/312 Hazard Categories: Fire Hazard – No; Pressure Hazard – No; Reactivity Hazard – No; Immediate Hazard – Yes; Delayed Hazard – No

Classification according to EEC guidelines: Unknown

National Prescriptions: Unknown



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### SECTION 16: Other information

#### No further technical information

The present data sheet contains technical-scientific information processed at best of our knowledge. We recommend verifying national and regional regulations applicable to the specific utilize field as well as regulations relative hygienic and safety on work and environment worship.

All information contained in the present data sheet is correct and processed in good faith. However they do not involve any obligation, guarantee and patent concession.

The characteristics mentioned in the following document do not constitute contractual specifications.

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*The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.*

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