

Safety Data Sheet

Product Name: Light Cure Dental Adhesive

Revision date: 03/13/2025

Initial Preparation Date : 12/31/2017

Referde to GB/T16483、GB/T17519

SDS number: HGD/QT-LCA-21

Version: 02

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Chinese names of chemicals :**光固化牙体粘接剂**English names of chemicals:**Light Cure Dental Adhesive**Product identifier (EU):****Company Name:** Rizhao HuGe Biomaterials Co., Ltd.**Address:** No.2 North Zhaoyang Road, Donggang District**City, State, Zip Code:** Shandong Province, 276800, P.R.China**Telephone:**Tel: 86-633-2277285**Website:**www.hugedental.com**Relevant identified uses of the substance or mixture and uses advised against:**

Light Cure Dental Adhesive is a 8th generation universal dental bonding agent specifically designed for meeting all your bonding needs either used as a strict self-etch dental bonding agent, or in combination with the traditional total etch or enamel etch procedures:

- Direct bonding under a light-cured composite or compomer fillings/resin modified glass ionomer restoratives;
- Repair of dental restorations of ceramic, composites and/or metal alloys;
- Indirect dental restorations cementation applications in combination with resin cement 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;
- Seal hypersensitive areas of teeth.

SECTION 2: Hazards identification**GHS risk categories:****H225 - Highly flammable liquid and vapor****H315 - Causes skin irritation****H317 - May cause an allergic skin reaction****H319 - Causes serious eye irritation.****Classification of substances/mixtures:**

The product has been classified according to the legislation in force.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Xn; R48/20

Label elements:

Health hazards:

- Inhalation: May cause respiratory tract irritation.
- Eye contact: Causes serious eye irritation.
- Skin contact: May cause an allergic skin reaction.
- Ingestion: May cause discomfort in the digestive system.
- Other Health Effects: No other information noted.

Environmental hazards: Not regarded as dangerous for the environment.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition/information on ingredients

Chemical characterization

General information: The light cure dental adhesive is primarily made of dental methacrylate resins of HEMA, BisGMA, Phosphate Methacrylate, minor superfine silica and solvents of Ethyl Alcohol along with light curing system.

Chemical name	CAS-No.	Concentration	Ec No
HEMA	868-77-9	≤40%	212-782-2
Bis-GMA	1565-94-2	≤40%	216-367-7
Phosphate Methacrylate (10-MDP)	85590-00-7	≤20%	N/A
Ethyl Alcohol	64-17-5	≤40%	200-578-6
Silica (amorphous)	69012-64-2	≤10%	273-761-1

SECTION 4: First aid measures

After inhalation:

Remove person to fresh air and keep comfortable for breathing.

After contact with skin:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

After contact with eyes:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

After ingestion:

Call a poison center/doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed:

None known.

Indication of any immediate medical attention and special treatment needed:

Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

Extinguishing media which must not be used for safety reasons

None known.

Advice for firefighters Special Fire Fighting Procedures

Water spray should be used to cool containers.

Special protective equipment for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

Environmental precautions

Collect spillage. Do not discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Precautions for safe handling

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Avoid direct sunlight and keep away from heat sources.

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

Chemical name	CAS-No.	Exposure limit
HEMA	868-77-9	Not applicable
Bis-GMA	1565-94-2	Not applicable
Phosphate Methacrylate (10-MDP)	85590-00-7	Not applicable
Ethyl Alcohol	64-17-5	Not applicable
Photo-initiators	Mixture	Not applicable

Silica (amorphous)	69012-64-2	Not applicable
--------------------	------------	----------------

Exposure controls

General information: No specific precautions.

Eye/Face protection: Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields.

Hand/Skin protection: See Section 7.1 for additional information on skin protection.

Respiratory Protection: None required.

Hygiene measures: Provide eyewash station and safety shower.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Appearance

Physical State: Liquid
Form: No data available.
Color: pale yellow or bright yellow
Odor: The smell of ethanol and resin
Odor Threshold: No data available.

pH: ≤4

Melting Point: No data available.

Boiling Point: No data available.

Flash Point: Closed cup: -17.8°C (-0.04°F) [Acetone]

Evaporation Rate: No data available.

Flammability (solid, gas): No data available.

Flammability Limit - Upper (%)-: No data available.

Flammability Limit - Lower (%)-: No data available.

Vapor pressure: No data available.

Vapor density (air=1): No data available.

Relative density: Approximately 1.0 gm/cm³

Solubility: Negligible

Solubility in Water: Practically Insoluble

Solubility (other):

Diethylether.: They are miscible with each other.

Common organic solvents.: They are miscible with each other.

Aromatic hydrocarbons.: They are miscible with each other.

Aliphatic hydrocarbons.: They are miscible with each other.

Acetone.: They are miscible with each other.

Ethanol.: They are miscible with each other.

Partition coefficient (n-octanol/water): No Data Available

Autoignition Temperature: No Data Available

Decomposition Temperature: No Data Available

Viscosity: No Data Available

Explosive properties: No Data Available.

Oxidizing properties: No Data Available.

SECTION 10: Stability and reactivity

Reactivity:

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

Chemical stability: Stable

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Heat

Incompatible materials: None known.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

SECTION 11: Toxicological information

Acute toxicity: No effects expected (assessment based on ingredients).

Skin corrosion/irritation: Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Irritation and corrosivity: No effects expected (assessment based on ingredients)

Germ cell mutagenicity: No effects expected (assessment based on ingredients).

Carcinogenicity: No effects expected (assessment based on ingredients).

Reproductive toxicity: No effects expected (assessment based on ingredients).

Specific target organ toxicity - single exposure: No effects expected (assessment based on ingredients).

Specific target organ toxicity - repeated exposure: No effects expected (assessment based on ingredients).

Aspiration hazard: No effects expected (assessment based on ingredients).

Other adverse effects: None known.

SECTION 12: Ecological information

Ecological Toxicity: No effects expected (assessment based on ingredients).

Persistence and degradability: Not applicable

Bioaccumulation potential: No data available

Further information: If the material causes hormonal effects or prevents them is unknown to us.

SECTION 13: Disposal considerations

Waste treatment methods:

Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of waste product in a permitted industrial waste facility.

General information

The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal Methods

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and

regulations, and product characteristics at time of disposal.

SECTION 14: Transport information

Optimal storage and transportation conditions:

At cool place with temperature of 2-25°C , avoiding direct sunlight and exposure.

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

National regulatory information

Chemical safety assessment:No data available

SECTION 16: Other information

Compared with the previous edition, the revised content:

1. Increase the identification of EU regulations
2. Increase the version number

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.