

Product Name: Porcelain Powders

Referde to GB/T16483、GB/T17519

Initial Preparation Date :2025.02.05

SDS number: HGD/QT-KCF-05-01

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Chinese names of chemicals :**烤瓷粉**English names of chemicals:**Porcelain Powders**Company Name:** Shandong Huge Dental Material Corporation**Address:** No.68 shanghai Road, Donggang District Rizhao City**City, State, Zip Code:** Shandong Province, 276800, P.R.China**Telephone:**0633-2277285**Website:**www.hugedental.com**Relevant identified uses of the substance or mixture and uses advised against:**Mainly used for staining and glazing the surface of all-ceramic restorations.**SECTION 2: Hazards identification****GHS risk categories:**No data available**Label elements:**No risks worthy of mention.**Physical and chemical hazards:** No data available**Health hazards:**

Inhalation: No health hazards are expected when processed under normal conditions of use.

Eye contact: No specific symptoms noted.

Skin contact: No specific symptoms noted.

Ingestion: No specific symptoms noted.

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 product is divided into three types: Powder, Blending liquid and Stain/Glaze.**Powder:** Silicon dioxide(30%-60%)、Aluminum oxide ($\leq 10\%$)、Potassium oxide ($\leq 10\%$)、Sodium oxide ($\leq 10\%$)、Boron oxide (10%-30%)、Calcium oxide ($\leq 10\%$)、Sodium hexafluorosilicate ($\leq 10\%$)、Zirconium oxide ($\leq 10\%$)、Zinc oxide ($\leq 1\%$) and other oxides.

Blending liquid: 1,3-Butanediol(92%), 1,3-Propanediol(3%), Other additives(5%);

Stain/Glaze: It consists of a powder and a blending liquid.

| Chemical name | Concentration | CAS NO. | EC No. | Notes |
|---------------------------|---------------|------------|-----------|-------|
| Silicon dioxide | 30%-60% | 7631-86-9 | 231-545-4 | - |
| Aluminum oxide | ≤10% | 1344-28-1 | 215-691-6 | - |
| Potassium oxide | ≤10% | 12136-45-7 | 235-227-6 | - |
| Sodium oxide | ≤10% | 1313-59-3 | 215-208-9 | - |
| Boron oxide | 10%-30% | 54566-73-3 | 259-231-2 | - |
| Calcium oxide | ≤10% | 1305-78-8 | 215-138-9 | - |
| Sodium hexafluorosilicate | ≤10% | 16893-85-9 | 240-934-8 | - |
| Zirconium oxide | ≤10% | 1314-23-4 | 215-227-2 | - |
| Zinc oxide | ≤1% | 1314-13-2 | 215-222-5 | - |
| 1,3-Butanediol | 92% | 107-88-0 | 203-529-7 | - |
| 1,3-Propanediol | 3% | 504-63-2 | 207-997-3 | - |

SECTION 4: First aid measures

After inhalation:

Powder inadvertently inhaled please promptly rinse with water, if you feel uncomfortable, please consult a doctor promptly.

After contact with skin:

Remove contaminated clothing and shoes. Wash with soap and water. Seek medical attention if you feel unwell.

After contact with eyes:

In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes. Seek medical attention if you feel unwell.

After ingestion:

Do not induce vomiting. Rinse mouth thoroughly. If irritation persists, seek medical attention

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

Extinguish with water mist, foam, carbon dioxide or dry powder.

Advice for firefighters Special Fire Fighting Procedures

Water spray should be used to cool containers.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Isolate the scene of the accident and prohibit unrelated personnel from entering.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Workers wear gloves and collect and dispose of leaked products.

Eliminate all ignition sources.

Environmental precautions

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

Methods and material for containment and cleaning up

Sweep away or shovel off spilled product and clean contaminated floors and objects with clean water.

Collected containers must be labelled with the correct contents and hazard symbols.

SECTION 7: Handling and storage

Precautions for safe handling

Operators should be specially trained and strictly follow operating procedures.

Avoid eye and skin contact.

Handling should be light to prevent damage to packaging and containers.

Conditions for safe storage, including any incompatibilities

Store in a cool, ventilated warehouse.

Keep container sealed.

Keep away from fire and heat source.

It should be stored separately from oxidizers, food and chemicals, and should never be mixed.

Prohibit the use of equipment and tools that are prone to sparks.

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

When processed under normal conditions of use, no health hazards are expected.

Engineering control: No specific engineering control measures.

Personal protective equipment

General information: No specific precautions.

Eye/face protection: No specific precautions.

Hand protection: No specific precautions.

Other: Under normal conditions of use, skin protection is not required. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Respiratory Protection: Wear a mask when using powders.

Hygiene measures: Provide eyewash station and safety shower.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Appearance

Physical State: Powder, Blending liquid and Stain/Glaze.

Color: multi-color

Odor: Odorless

pH: Stain/Glaze:7;Blending liquid:6.1

Melting Point: Blending liquid:-54°C.

Boiling Point: Blending liquid:203-204°C.

Ignition point: Blending liquid:500°C

Evaporation Rate: No data available.

Flammability (solid, gas): Powder is non-combustible, and Blend liquid is combustible.

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

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

Vapor pressure: < 0.1 hPa (20 °C)

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

Relative density: 1.1g/cm³ (20 °C) Approximate

Solubility:

Solubility in Water: Blending liquid is miscible with water

Solubility (other): Diethylether: Blending liquid is miscible(in all proportions).

Common organic solvents: Blending liquid is miscible (in all proportions).

Aromatic hydrocarbons: Blending liquid is miscible (in all proportions).

Aliphatic hydrocarbons: Blending liquid is miscible (in all proportions).

Acetone: Blending liquid is miscible.

Ethanol: Blending liquid is miscible.

Partition coefficient (n-octanol/water):No data available.

| | |
|-----------------------------------|--|
| Autoignition Temperature: | > 500°C |
| Decomposition Temperature: | > 200 °C |
| Viscosity: | No data available. |
| Explosive properties: | No data available. |
| Oxidizing properties: | According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship) |

SECTION 10: Stability and reactivity

Reactivity:Not relevant.

Chemical stability:This product is stable when stored and used in a normal environment.

Conditions to avoid:High temperature, humidity, etc.

Incompatible materials:Strong oxidizing agents,strong acids.

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

SECTION 11: Toxicological information

Main components of the product: Powder: Silicon dioxide,Boron oxide,Zirconium oxide
Blending liquid: 1,3-Butanediol
Stain/Glaze: It is composed of a powder and a blending liquid

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

Skin corrosion/irritation:No effects expected (assessment based on ingredients)

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:

Recycle as much as possible. If it cannot be recycled, it will be disposed of according to the solid waste treatment method.

This product shall not be disposed of by discharging it into the sewer.

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Waste Precautions

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

See Section 8 for safety precautions for disposal personnel.

SECTION 14: Transport information

Packaging category: non-dangerous

Packaging mark:



Packaging method:

Inner packing: glass bottle (Powder, Stain/Glaze) + plastic bottle (Blending liquid)

Outer packing: white cardboard + corrugated box

Marine pollutants (Yes/No): No.

Precautions for transportation:

During transportation, it should be protected from exposure to sun, rain and high temperature.

During the stopover, it should be kept away from fire, heat sources, and high temperature areas.

It is strictly forbidden to mix with oxidant.

SECTION 15: Regulatory information

National regulatory information

Chemical safety assessment: No data available

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.