



**Safety Data Sheet  
according to HPR, Schedule 1**

Printing date 02/17/2020

Reviewed on 02/17/2020

## 1 Identification

· **Product identifier**

· **Trade name:** Signum ceramis

· **Application of the substance / the mixture** Veneering resin

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany) Tel.: +49 (0)800 4372522

· **Information department:**

Tel. +1 (800) 431-1785 Fax: +1 (800) 522-1545

e-mail: [customer.servicehna@kulzer-dental.com](mailto:customer.servicehna@kulzer-dental.com)

· **Emergency telephone number:**

Emergency CONTACT (24-Hour-Number)

ID 105860: (domestic) 1 800 535 5053 or international (001) 352 323 3500

## 2 Hazard identification

· **Classification of the substance or mixture**

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Bisphenol A Diglycidylether Diacrylate (BADGE-DA)  
triethylen glycol dimethacrylate

· **Hazard statements**

May cause an allergic skin reaction.

· **Precautionary statements**

Keep container tightly closed.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store in a well-ventilated place.

· **Classification system**

· **NFPA ratings for USA (scale 0-4)**



Health = 0

Fire = 1

Reactivity = 0

· **HMIS-Ratings (Scale 0-4)**



Health = 0

Fire = 1

Reactivity = 0

(Contd. on page 2)



**Safety Data Sheet**  
according to HPR, Schedule 1

Printing date 02/17/2020

Reviewed on 02/17/2020

**Trade name: Signum ceramis**

· **Other hazards -**

(Contd. of page 1)

### 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description: -**

· **Dangerous components:**

|            |   |              |
|------------|---|--------------|
| 55818-57-0 | Bisphenol A Diglycidylether Diacrylate (BADGE-DA)<br>Skin Sensitizer - Category 1, H317 | ≥1-≤5% w/w * |
| 109-16-0   | triethylen glycol dimethacrylate<br>Skin Sensitizer - Category 1B, H317                 | ≥1-≤5% w/w * |

\* Actual concentration ranges are withheld as a trade secret.

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation** Supply fresh air; consult doctor in case of complaints.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

· **Additional information -**

### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

· **Environmental precautions:** No special measures required.

· **Methods and material for containment and cleaning up:**

Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).

Dispose of the collected material according to regulations.

· **Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 3)



**Safety Data Sheet  
according to HPR, Schedule 1**

Printing date 02/17/2020

Reviewed on 02/17/2020

**Trade name: Signum ceramis**

(Contd. of page 2)

### 7 Handling and storage

- **Handling**
  - **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and receptacles:** No special requirements.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Keep cool, if possible (not above 25 °C).
  - **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.  
Not required.
    - **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal protective equipment**
    - **General protective and hygienic measures**  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.
    - **Breathing equipment:**  
Not necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).
    - **Protection of hands:**  
If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.
      - **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.
    - **Eye protection:** Protective goggles are recommended.
    - **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Pasty
      - **Color:** According to product specification
    - **Odor:** Ester-like
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.

(Contd. on page 4)



**Safety Data Sheet**  
according to HPR, Schedule 1

Printing date 02/17/2020

Reviewed on 02/17/2020

**Trade name: Signum ceramis**

(Contd. of page 3)

|   |   |
|---|---|
| · <b>Change in condition</b>                      |   |
| · <b>Melting point/Melting range:</b>             | undetermined                                  |
| · <b>Boiling point/Boiling range:</b>             | 100 °C (212 °F)                               |
| · <b>Flash point:</b>                             | 101 °C (213.8 °F)                             |
| · <b>Flammability (solid, gaseous)</b>            | Not applicable.                               |
| · <b>Ignition temperature:</b>                    | 400 °C (752 °F)                               |
| · <b>Decomposition temperature:</b>               | Not determined.                               |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |   |
| · <b>Lower:</b>                                   | Not determined.                               |
| · <b>Upper:</b>                                   | Not determined.                               |
| · <b>Vapor pressure at 20 °C (68 °F):</b>         | 40 hPa (30 mm Hg)                             |
| · <b>Density at 20 °C (68 °F):</b>                | 1.86 g/cm <sup>3</sup> (15.5217 lbs/gal)      |
| · <b>Relative density</b>                         | Not determined.                               |
| · <b>Vapor density</b>                            | Not determined.                               |
| · <b>Evaporation rate</b>                         | Not determined.                               |
| · <b>Solubility in / Miscibility with</b>         |   |
| · <b>Water:</b>                                   | Not miscible or difficult to mix              |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                               |
| · <b>Viscosity:</b>                               |   |
| · <b>dynamic:</b>                                 | Not determined.                               |
| · <b>kinematic:</b>                               | Not determined.                               |
| · <b>Solvent content:</b>                         |   |
| · <b>Solids content:</b>                          | 70.2 %  |
| · <b>Other information</b>                        | No further relevant information available.    |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** none
- **Additional information:** -

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

|   |      |                   |
|---|------|-------------------|
| · <b>LD/LC50 values that are relevant for classification:</b> |      |                   |
| <b>7631-86-9 silicon dioxide, chemically prepared</b>         |      |                   |
| Oral  | LD50 | 10000 mg/kg (rat) |

(Contd. on page 5)



**Safety Data Sheet  
according to HPR, Schedule 1**

Printing date 02/17/2020

Reviewed on 02/17/2020

**Trade name: Signum ceramis**

(Contd. of page 4)

**41137-60-4 diurethandimethacrylate**

Oral LD50 >5000 mg/kg (rat)

**53879-55-3 penta erythritol, propoxylated, tetraacrylate**

Oral LD50 >2000 mg/kg (rat)

**55818-57-0 Bisphenol A Diglycidylether Diacrylate (BADGE-DA)**

Oral LD50 >2000 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rabbit)

Sensitization Sensib. (human)  
Haut sensibilisierend

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7631-86-9 silicon dioxide, chemically prepared

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

**12 Ecological information**

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

· **Waste treatment methods**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· **UN-Number**

· **DOT/TDG, ADR, ADN, IMDG, IATA** Void

(Contd. on page 6)

CDN



**Safety Data Sheet  
according to HPR, Schedule 1**

Printing date 02/17/2020

Reviewed on 02/17/2020

**Trade name: Signum ceramis**

(Contd. of page 5)

|  |                 |
|--|-----------------|
| · <b>UN proper shipping name</b><br>· DOT/TDG, ADR, ADN, IMDG, IATA              | Void            |
| · <b>Transport hazard class(es)</b><br>· DOT, ADR, ADN, IMDG, IATA<br>· Class    | Void            |
| · <b>Packing group</b><br>· DOT/TDG, ADR, IMDG, IATA                             | Void            |
| · <b>Environmental hazards:</b><br>· Marine pollutant:                           | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>Transport/Additional information:</b>                                       | -               |
| · <b>UN "Model Regulation":</b>  | Void            |

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· Sara

· **SARA Section 355 (extremely hazardous substances)**  
None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H317 May cause an allergic skin reaction.

· **Date of the latest revision of the safety data sheet** 02/17/2020 / 1

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· **\* Data compared to the previous version altered.**