1. Identification

**Product identifier**

VITA SIMULATE Preparation Material

**Recommended use of the chemical and restrictions on use**

**Use of the substance/mixture**

Use as laboratory reagent

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

- **Company name:** VITA Zahnfabrik H.Rauter GmbH & Co.KG
- **Post-office box:** 1338
- **Ship to:** 79704 Bad Säckingen
- **Telephone:** +49(0)7761-562-0
- **Telefax:** +49(0)7761-562-299
- **e-mail:** info@vita-zahnfabrik.com
- **Internet:** www.vita-zahnfabrik.com

**Emergency phone number:** +49(0)761-19240

2. Hazard(s) identification

**Classification of the chemical**

29 CFR Part 1910.1200

- Skin corrosion/irritation: Skin Irrit. 2
- Serious eye damage/eye irritation: Eye Irrit. 2A
- Respiratory or skin sensitization: Skin Sens. 1

**Label elements**

29 CFR Part 1910.1200

- **Signal word:** Warning
- **Pictograms:**

![Warning Pictogram]

**Hazard statements**

- Causes skin irritation
- May cause an allergic skin reaction
- Causes serious eye irritation

**Precautionary statements**

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Contaminated work clothing must not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If on skin: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.

**Hazards not otherwise classified**

No information available.

3. Composition/information on ingredients

**Mixtures**
### Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>72869-86-4</td>
<td>7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacrylate (mixture of isomers)</td>
<td>20.45 %</td>
</tr>
<tr>
<td>109-16-0</td>
<td>triethylene glycol dimethacrylate</td>
<td>19 %</td>
</tr>
<tr>
<td>2867-47-2</td>
<td>2-dimethylaminoethyl methacrylate</td>
<td>0.13 %</td>
</tr>
</tbody>
</table>

### 4. First-aid measures

**Description of first aid measures**

**After inhalation**
Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

**After contact with skin**
After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**
Rinse mouth immediately and drink plenty of water.

**Most important symptoms and effects, both acute and delayed**
No information available.

**Indication of any immediate medical attention and special treatment needed**
Treat symptomatically.

### 5. Fire-fighting measures

**Extinguishing media**
Co-ordinate fire-fighting measures to the fire surroundings.

**Specific hazards arising from the chemical**
Non-flammable.

**Special protective equipment and precautions for fire-fighters**
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**
Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Provide adequate ventilation. Do not breathe gas/fume/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**Environmental precautions**
Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up**
Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

**Reference to other sections**
Safe handling: see section 7
Personal protection equipment (PPE): see section 8
7. Handling and storage

Precautions for safe handling

Advice on safe handling
No special measures are necessary.

Advice on protection against fire and explosion
No special fire protection measures are necessary.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed.

Hints on joint storage
No special measures are necessary.

8. Exposure controls/personal protection

Control parameters

Exposure controls

Protective and hygiene measures
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection
Suitable eye protection: goggles.

Hand protection
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Recommended glove articles KCL Dermatril PBreakthrough time (maximum wearing time) 10 min NBR (Nitrile rubber)

Skin protection
Wear suitable protective clothing.

Respiratory protection
In case of inadequate ventilation wear respiratory protection. Provide adequate ventilation as well as local exhaustion at critical locations. Technical ventilation of workplace

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:
Color:
pH-Value: not determined

Changes in the physical state
Melting point/freezing point: not determined
### Flammability
- **Solid:** not determined
- **Gas:** not determined

### Lower explosion limits:
- not determined

### Upper explosion limits:
- not determined

### Auto-ignition temperature
- **Solid:** not determined
- **Gas:** not determined

### Decomposition temperature:
- not determined

### Oxidizing properties
- Not oxidising.

### Vapor pressure:
- <=1100 hPa (at 50 °C)

### Density:
- not determined

### Water solubility:
- No

### Solubility in other solvents
- not determined

### Partition coefficient:
- not determined

### Vapor density:
- not determined

### Evaporation rate:
- not determined

### Other information
- **Solid content:** 48.07 %

### 10. Stability and reactivity

#### Reactivity
- No hazardous reaction when handled and stored according to provisions.

#### Chemical stability
- The product is stable under storage at normal ambient temperatures.

#### Possibility of hazardous reactions
- No known hazardous reactions.

#### Conditions to avoid
- none/none

#### Incompatible materials
- No information available.

#### Hazardous decomposition products
- No known hazardous decomposition products.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity
- Based on available data, the classification criteria are not met.
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2867-47-2</td>
<td>2-dimethylaminoethyl methacrylate</td>
<td>oral</td>
<td>ATE</td>
<td>mg/kg</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>ATE</td>
<td>mg/kg</td>
<td>1100</td>
<td></td>
</tr>
</tbody>
</table>

**Irritation and corrosivity**
- Causes skin irritation
- Causes serious eye irritation

**Sensitizing effects**
- May cause an allergic skin reaction
  (7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers); triethylene glycol dimethacrylate; 2-dimethylaminoethyl methacrylate)

**Carcinogenic/mutagenic/toxic effects for reproduction**
- Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - single exposure**
- Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - repeated exposure**
- Based on available data, the classification criteria are not met.
  - Carcinogenicity (OSHA): No ingredient of this mixture is listed.
  - Carcinogenicity (IARC): No ingredient of this mixture is listed.
  - Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**
- Based on available data, the classification criteria are not met.

**Additional information on tests**
- The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**12. Ecological information**

**Ecotoxicity**
- The product is not: Ecotoxic.

**Persistence and degradability**
- The product has not been tested.

**Bioaccumulative potential**
- The product has not been tested.

**Mobility in soil**
- The product has not been tested.

**Other adverse effects**
- No information available.

**Further information**
- Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**13. Disposal considerations**

**Waste treatment methods**

**Disposal recommendations**
- Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information

Marine transport (IMDG)
- **UN number:** No dangerous good in sense of this transport regulation.
- **UN proper shipping name:** No dangerous good in sense of this transport regulation.
- **Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- **Packing group:** No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
- **UN number:** No dangerous good in sense of this transport regulation.
- **UN proper shipping name:** No dangerous good in sense of this transport regulation.
- **Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- **Packing group:** No dangerous good in sense of this transport regulation.

Environmental hazards
- **ENVIRONMENTALLY HAZARDOUS:** no

Special precautions for user
- No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- not applicable

15. Regulatory information

U.S. Regulations
- **National regulatory information**
  - SARA Section 311/312 Hazards:
    - 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers)
    - (72869-86-4): Immediate (acute) health hazard
    - triethylene glycol dimethacrylate (109-16-0): Immediate (acute) health hazard
    - 2-dimethylaminoethyl methacrylate (2867-47-2): Immediate (acute) health hazard

State Regulations
- **Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**
  - This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

- **Revision date:** 19.08.2019
- **Revision No:** 2

Abbreviations and acronyms
- **ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- **IMDG:** International Maritime Code for Dangerous Goods
- **IATA:** International Air Transport Association
- **GHS:** Globally Harmonized System of Classification and Labelling of Chemicals
- **EINECS:** European Inventory of Existing Commercial Chemical Substances
- **ELINCS:** European List of Notified Chemical Substances
- **CAS:** Chemical Abstracts Service
- **LC50:** Lethal concentration, 50%
LD50: Lethal dose, 50%

Other data
The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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