1. Identification

Product identifier
VITA VM LC flow

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
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

Further Information
medical device

2. Hazard(s) identification

Classification of the chemical
29 CFR Part 1910.1200
Respiratory or skin sensitization: Skin Sens. 1

Label elements
29 CFR Part 1910.1200
Signal word: Warning
Pictograms:

Hazard statements
May cause an allergic skin reaction

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.

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-dioxa-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers)</td>
<td>17.55 %</td>
</tr>
<tr>
<td>109-16-0</td>
<td>2,2'-ethylenedioxydiethyl dimethacrylate</td>
<td>16.3 %</td>
</tr>
<tr>
<td>94108-97-1</td>
<td>Ditrimethylolpropane Tetraacrylate</td>
<td>1.222 %</td>
</tr>
<tr>
<td>2867-47-2</td>
<td>2-dimethylaminoethyl methacrylate</td>
<td>0.223 %</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 plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**
- Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**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**
- Suitable 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
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 limits

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>f/cc</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>7631-86-9</td>
<td>Silica, amorphous</td>
<td></td>
<td>6</td>
<td></td>
<td>TWA (8 h)</td>
<td>REL</td>
</tr>
</tbody>
</table>

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, drink, smoke, sniff.

Eye/face protection
Wear eye protection/face protection.

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 P NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 10 min

Skin protection
Use of protective clothing.

Respiratory protection
In case of inadequate ventilation wear respiratory protection. Fresh air (open windows and doors) is necessary.
9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Physical state:** viscous

**Color:** characteristic

**pH-Value:** not determined

**Changes in the physical state**

**Melting point/freezing point:** not determined

**Initial boiling point and boiling range:** > 283 °C

**Flash point:** 151 °C

**Flammability**

Solid: not determined

Gas: not applicable

**Explosive properties**

The product is not: Explosive.

**Auto-ignition temperature**

Solid: not determined

Gas: not applicable

**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:** 62.84 %

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.
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
Based on available data, the classification criteria are not met.

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); 2,2'-ethyleneoxydiethyl 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 (IARC): Silica, amorphous (CAS 7631-86-9) is listed in group 3.

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
Harmful to aquatic life with long lasting effects.

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
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

15. Regulatory information

U.S. Regulations

**National regulatory information**
- SARA Section 311/312 Hazards:
  - 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-1,16-diol-dimethacrylat (mixture of isomers) (72869-86-4): Immediate (acute) health hazard
  - 2,2'‐ethylenedioxydiethyl dimethacrylate (109-16-0): Immediate (acute) health hazard
  - Ditolylmethane (94108-97-1): 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:** 13.08.2019
- **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
Safety Data Sheet
according to 29 CFR 1910.1200(g)

VITA VM LC flow
Product code: 284

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%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
( Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

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.)