SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

VITA VM LC flow

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Manufacturer

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

Supplier

Company name: Company Name
Street: Street
Place: 79704 Town
Telephone: Phone
Telex: Telefax
E-mail: email
Contact person: Contact person
Internet: url

1.4. Emergency telephone number:

+49-0761-19240

Further Information

medical device

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

UN-GHS (Rev.3)

Hazard categories:
Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:
May cause an allergic skin reaction.

2.2. Label elements

UN-GHS (Rev.3)

Hazard components for labelling
2,2'-ethylenedioxydiethyl dimethacrylate
7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacylat (mixture of isomers)

Signal word: Warning

Pictograms:

Hazard statements
H317 May cause an allergic skin reaction.
Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of waste according to applicable legislation.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</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-dimethacrylat (mixture of isomers)</td>
<td>15 - &lt; 20 %</td>
</tr>
<tr>
<td>109-16-0</td>
<td>2,2'-ethylenedioxydiethyl dimethacrylate</td>
<td>15 - &lt; 20 %</td>
</tr>
<tr>
<td>94108-97-1</td>
<td>Ditrimethylolpropane Tetraacrylate</td>
<td>1 - &lt; 5 %</td>
</tr>
<tr>
<td>2867-47-2</td>
<td>2-dimethylaminoethyl methacrylate</td>
<td>&lt; 1 %</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
When in doubt or if symptoms are observed, get medical advice.

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
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion
Rinse mouth immediately and drink plenty of water. Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a person with cramps. Call a doctor.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.
5.3. Advice for firefighters
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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove persons to safety.

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

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion
Usual measures for fire prevention.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep container tightly closed.

Hints on joint storage
No information available.

7.3. Specific end use(s)
Use as laboratory reagent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Additional advice on limit values
Value:
Siliciumdioxid (respirable dust)
2 mg/m³ (a) TWA
(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

Zirconium compounds (as Zr)
5 mg/m³ TWA
10 mg/m³ STEL

Source: Workplace exposure standards for airborne contaminants, Publication date: 16 December 2019
8.2. Exposure controls

Appropriate engineering controls
Provide adequate ventilation as well as local exhaustion at critical locations.

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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes.

Eye/face protection
Wear eye protection/face protection.

Hand protection
Wear suitable gloves.
Suitable material: NBR (Nitrile rubber)
Breakthrough time (maximum wearing time): 10 min

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.

Skin protection
Use of protective clothing.

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

Environmental exposure controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: viscus
Colour: various
Odour: characteristic
pH-Value: not determined

Changes in the physical state
Melting 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.
Lower explosion limits: not determined
Upper explosion limits: not determined
Ignition temperature: not determined

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

Decomposition temperature: not determined

**Oxidizing properties**
- Not oxidising.

Vapour pressure: <= 1100 hPa (at 50 °C)

Density: not determined

Water solubility: No

**Solubility in other solvents**
- not determined

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: 62.84 %

Odour threshold: not determined

### SECTION 10: Stability and reactivity

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

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

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

#### 10.4. Conditions to avoid
No information available.

#### 10.5. Incompatible materials
No information available.

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

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**
- Based on available data, the classification criteria are not met.
Irritation and corrosivity
Based on available data, the classification criteria are not met.

Sensitising 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'-ethylenedioxydiethyl dimethacrylate; 2-dimethylaminoethyl methacrylate)

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

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

12.1. Toxicity
Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability
The product has not been tested.

12.3. Bioaccumulative potential
The product has not been tested.

12.4. Mobility in soil
The product has not been tested.

12.5. 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.

SECTION 13: Disposal considerations

13.1. 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.

Contaminated packaging
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADG)

14.1. UN number:
No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Additional information

AICS
2,2’-ethylenedioxydiethyl dimethacrylate: Yes.
2-dimethylaminomethyl methacrylate: Yes.
Siliciumdioxid: Yes.
Zirconium oxide: Yes.

SUSPM
2,2’-ethylenedioxydiethyl dimethacrylate: No
7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers): No
2-Propenoic acid, 2-[(2,2-bis[[1-oxo-2-propenyl]oxy]methyl)butoxy]methyl]-2-ethyl-1,3-propanediyl ester: No
2-dimethylaminomethyl methacrylate: No
Siliciumdioxid: No
Zirconium oxide: No

SECTION 16: Other information

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
ADG: Australian Dangerous Goods
AICS: Australian Inventory of Chemical Substances
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service
STEL: Short-term exposure limit
TWA: time-weighted average
TI: Technical Instructions
DGR: Dangerous Goods Regulations
UN: United Nations
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
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
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons

Further Information
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.)