

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 1 of 9

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

### 1.1. Product identifier

VITA VM LC CLEANER

UFI: 6S00-Q0YN-Q00Q-S1WM

### 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

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Post-office box: 1338

D-79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

e-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

e-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

### 1.4. Emergency telephone number:

+49-(0)761-19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Flam. Liq. 2; H225

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

Signal word: Danger

Pictograms:



#### Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 2 of 9

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No  | Chemical name                                                |              |                  | Quantity    |
|---------|--------------------------------------------------------------|--------------|------------------|-------------|
|         | EC No                                                        | Index No     | REACH No         |             |
|         | Classification (GB CLP Regulation)                           |              |                  |             |
| 64-17-5 | ethyl alcohol                                                |              |                  | 90 - < 95 % |
|         | 200-578-6                                                    | 603-002-00-5 | 01-2119457610-43 |             |
|         | Flam. Liq. 2, Eye Irrit. 2; H225 H319                        |              |                  |             |
| 78-93-3 | butanone; ethyl methyl ketone                                |              |                  | 1 - < 5 %   |
|         | 201-159-0                                                    | 606-002-00-3 |                  |             |
|         | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 |              |                  |             |

Full text of H and EUH statements: see section 16.

##### Specific Conc. Limits, M-factors and ATE

| CAS No  | EC No                                    | Chemical name                 | Quantity    |
|---------|------------------------------------------|-------------------------------|-------------|
|         | Specific Conc. Limits, M-factors and ATE |                               |             |
| 64-17-5 | 200-578-6                                | ethyl alcohol                 | 90 - < 95 % |
|         | dermal: LD50 = 7060 mg/kg                |                               |             |
| 78-93-3 | 201-159-0                                | butanone; ethyl methyl ketone | 1 - < 5 %   |
|         | dermal: LD50 = 5000 mg/kg                |                               |             |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

##### 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.

#### 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

Carbon dioxide (CO2), Foam, Extinguishing powder.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 3 of 9

#### Unsuitable extinguishing media

Water.

#### 5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air.

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

##### General advice

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Absorb with liquid-binding material (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

No special measures are necessary.

##### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air.

##### Advice on general occupational hygiene

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.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

#### 7.3. Specific end use(s)

Use as laboratory reagent

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 4 of 9

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

| CAS No  | Substance                         | ppm  | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|-----------------------------------|------|-------------------|-----------|---------------|--------|
| 78-93-3 | Butan-2-one (methyl ethyl ketone) | 200  | 600               |           | TWA (8 h)     | WEL    |
|         |                                   | 300  | 899               |           | STEL (15 min) | WEL    |
| 64-17-5 | Ethanol                           | 1000 | 1920              |           | TWA (8 h)     | WEL    |

#### Biological Monitoring Guidance Values (EH40)

| CAS No  | Substance   | Parameter   | Value     | Test material | Sampling time |
|---------|-------------|-------------|-----------|---------------|---------------|
| 78-93-3 | Butan-2-one | butan-2-one | 70 µmol/L | urine         | Post shift    |

### 8.2. Exposure controls



Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear eye/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 Breakthrough time: 30 min NBR (Nitrile rubber)

#### Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing. Wear suitable protective clothing.

#### Respiratory protection

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

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid  
Colour: colourless

#### Changes in the physical state

Melting point/freezing point: not determined  
Boiling point or initial boiling point and boiling range: 78 °C  
Flash point: 13 °C

#### Flammability

Solid/liquid: not applicable  
Gas: not applicable

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 5 of 9

#### Explosive properties

The product is not: Explosive.

Lower explosion limits: 3,5 vol. %

Upper explosion limits: 15 vol. %

Auto-ignition temperature: 425 °C

#### Self-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

pH-Value: not determined

Viscosity / dynamic:  
(at 20 °C) 1,2 mPa·s

#### Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

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

Density: 0,80000 g/cm³

Relative vapour density: not determined

#### 9.2. Other information

##### Information with regard to physical hazard classes

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Solid content: 0,0 %

Evaporation rate: not determined

##### Further Information

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Highly flammable.

#### 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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

#### 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 hazard classes as defined in GB CLP Regulation

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 6 of 9

#### Acute toxicity

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

| CAS No  | Chemical name                 |               |         |        |        |
|---------|-------------------------------|---------------|---------|--------|--------|
|         | Exposure route                | Dose          | Species | Source | Method |
| 64-17-5 | ethyl alcohol                 |               |         |        |        |
|         | dermal                        | LD50<br>mg/kg | 7060    |        |        |
| 78-93-3 | butanone; ethyl methyl ketone |               |         |        |        |
|         | dermal                        | LD50<br>mg/kg | 5000    |        |        |

#### Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

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

#### 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.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

#### 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. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Avoid release to the environment.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 7 of 9

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself. Waste codes/waste designations according to EWC/AVV

## SECTION 14: Transport information

### Land transport (ADR/RID)

|                                          |                         |
|------------------------------------------|-------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 1170                 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL (ETHYL ALCOHOL) |
| <b>14.3. Transport hazard class(es):</b> | 3                       |
| <b>14.4. Packing group:</b>              | II                      |
| Hazard label:                            | 3                       |



|                          |         |
|--------------------------|---------|
| Classification code:     | F1      |
| Special Provisions:      | 144 601 |
| Limited quantity:        | 1 L     |
| Excepted quantity:       | E2      |
| Transport category:      | 2       |
| Hazard No:               | 33      |
| Tunnel restriction code: | D/E     |

### Inland waterways transport (ADN)

|                                          |                         |
|------------------------------------------|-------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 1170                 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL (ETHYL ALCOHOL) |
| <b>14.3. Transport hazard class(es):</b> | 3                       |
| <b>14.4. Packing group:</b>              | II                      |
| Hazard label:                            | 3                       |



|                      |         |
|----------------------|---------|
| Classification code: | F1      |
| Special Provisions:  | 144 601 |
| Limited quantity:    | 1 L     |
| Excepted quantity:   | E2      |

### Marine transport (IMDG)

|                                          |                         |
|------------------------------------------|-------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 1170                 |
| <b>14.2. UN proper shipping name:</b>    | ETHANOL (ETHYL ALCOHOL) |
| <b>14.3. Transport hazard class(es):</b> | 3                       |
| <b>14.4. Packing group:</b>              | II                      |
| Hazard label:                            | 3                       |



|                     |     |
|---------------------|-----|
| Special Provisions: | 144 |
|---------------------|-----|

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 8 of 9

Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-E, S-D

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 1170  
**14.2. UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Special Provisions: A3 A58 A180  
 Limited quantity Passenger: 1 L  
 Passenger LQ: Y341  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 353  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 364  
 IATA-max. quantity - Cargo: 60 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Warning: Combustible liquid.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to 2012/18/EU  
 (SEVESO III):

P5c FLAMMABLE LIQUIDS

##### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,5,6,7,8,9,10,13,14,15,16.

#### 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



## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC CLEANER

Revision date: 17.01.2023

Product code: 265

Page 9 of 9

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%  
 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  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification     | Classification procedure |
|--------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data    |
| Eye Irrit. 2; H319 | Calculation method       |

#### Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 EUH066 Repeated exposure may cause skin dryness or cracking.

#### 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.)*

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 1 of 6

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

### 1.1. Product identifier

VITA VM LC Gel

### 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

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Post-office box: 1338

D-79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

E-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

E-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

### Further Information

Use as laboratory reagent

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

### 2.2. Label elements

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixtures Substance, organic

#### Hazardous components

none (according to UK REACH Regulation)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 2 of 6

#### After ingestion

Rinse mouth immediately and drink plenty of water.

#### 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

In case of fire: Wear self-contained breathing apparatus.

#### Additional information

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

##### General advice

Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Absorb with liquid-binding material (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

No special measures are necessary.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

#### 7.2. 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.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 3 of 6

#### 7.3. Specific end use(s)

Use as laboratory reagent

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

| CAS No  | Substance      | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|---------|----------------|-----|-------------------|-----------|-----------|--------|
| 56-81-5 | Glycerol, mist | -   | 10                |           | TWA (8 h) | WEL    |

#### 8.2. Exposure controls

##### Individual protection measures, such as personal protective equipment

###### Eye/face protection

Wear eye/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)

###### Skin protection

Wear suitable protective clothing.

###### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Provide adequate ventilation as well as local exhaust at critical locations.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| Physical state:                                           | Liquid                    |
| Colour:                                                   | colourless                |
| Odour:                                                    | odourless                 |
| Melting point/freezing point:                             | not determined            |
| Boiling point or initial boiling point and boiling range: | 290 °C                    |
| Flammability:                                             | not applicable            |
| Lower explosion limits:                                   | not applicable            |
| Upper explosion limits:                                   | not determined            |
| Flash point:                                              | 160 °C                    |
| Auto-ignition temperature:                                | 400 °C                    |
| Decomposition temperature:                                | not determined            |
| pH-Value:                                                 | not determined            |
| Solubility in other solvents                              |                           |
| not determined                                            |                           |
| Partition coefficient n-octanol/water:                    | not determined            |
| Vapour pressure:                                          | <=1100 hPa                |
| (at 50 °C)                                                |                           |
| Density:                                                  | 1,44500 g/cm <sup>3</sup> |
| Relative vapour density:                                  | not determined            |

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 4 of 6

#### 9.2. Other information

##### Information with regard to physical hazard classes

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Evaporation rate:

not determined

Solid content:

16,67 %

### 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

none

#### 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 hazard classes as defined in GB CLP Regulation

##### Acute toxicity

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

##### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

##### Irritation and corrosivity

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

##### Sensitising effects

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

##### 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.

##### Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 5 of 6

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not: Ecotoxic.

### 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. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

### Further information

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

## SECTION 14: Transport information

### Land transport (ADR/RID)

#### 14.1. UN number or ID 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.

### Inland waterways transport (ADN)

#### 14.1. UN number or ID 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 or ID 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 or ID 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.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC Gel

Revision date: 15.08.2023

Product code: 166

Page 6 of 6

#### 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. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1.

#### 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%

#### 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.)*

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 1 of 8

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

### 1.1. Product identifier

VITA VM LC OPAQUE

### 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

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Post-office box: 1338

D-79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

E-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

E-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

### Further Information

medical device

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

### 2.2. Label elements

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Substance, organic Product/Substance is inorganic. Mixtures

#### Hazardous components

| CAS No     | Chemical name                      |          |                  | Quantity    |
|------------|------------------------------------|----------|------------------|-------------|
|            | EC No                              | Index No | REACH No         |             |
|            | Classification (GB CLP Regulation) |          |                  |             |
| 13463-67-7 | Titanium dioxide                   |          |                  | 20 - < 25 % |
|            | 236-675-5                          |          | 01-2119489379-17 |             |
|            | Carc. 2; H351                      |          |                  |             |

Full text of H and EUH statements: see section 16.



## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 2 of 8

#### Specific Conc. Limits, M-factors and ATE

| CAS No     | EC No     | Chemical name                            | Quantity    |
|------------|-----------|------------------------------------------|-------------|
|            |           | Specific Conc. Limits, M-factors and ATE |             |
| 13463-67-7 | 236-675-5 | Titanium dioxide                         | 20 - < 25 % |
|            |           | oral: LD50 = > 2000 mg/kg                |             |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

##### After ingestion

Rinse mouth immediately and drink plenty of water.

#### 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

In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

##### General advice

Avoid dust formation. Do not breathe dust.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Take up mechanically. 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

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 3 of 8

## SECTION 7: Handling and storage

### 7.1. 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.

#### Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

### 7.2. 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.

### 7.3. Specific end use(s)

Use as laboratory reagent

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

| CAS No     | Substance                         | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|------------|-----------------------------------|-----|-------------------|-----------|-----------|--------|
| 13463-67-7 | Titanium dioxide, total inhalable | -   | 10                |           | TWA (8 h) | WEL    |

#### DNEL/DMEL values

| CAS No                   | Substance        | Exposure route | Effect   | Value                  |
|--------------------------|------------------|----------------|----------|------------------------|
| 13463-67-7               | Titanium dioxide |                |          |                        |
| Worker DNEL, long-term   |                  | inhalation     | local    | 1.25 mg/m <sup>3</sup> |
| Consumer DNEL, long-term |                  | oral           | systemic | 700 mg/kg bw/day       |

#### PNEC values

| CAS No                                           | Substance        | Value      |
|--------------------------------------------------|------------------|------------|
| 13463-67-7                                       | Titanium dioxide |            |
| Freshwater                                       |                  | 0.184 mg/l |
| Freshwater (intermittent releases)               |                  | 0.193 mg/l |
| Marine water                                     |                  | 0.018 mg/l |
| Freshwater sediment                              |                  | 1000 mg/kg |
| Marine sediment                                  |                  | 100 mg/kg  |
| Micro-organisms in sewage treatment plants (STP) |                  | 100 mg/l   |
| Soil                                             |                  | 100 mg/kg  |

### 8.2. Exposure controls

Individual protection measures, such as personal protective equipment

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 4 of 8

#### Eye/face protection

Wear eye/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)

#### Skin protection

Use of protective clothing.

#### Respiratory protection

Provide adequate ventilation as well as local exhaust at critical locations. Technical ventilation of workplace

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                                                           |                |                |
|-----------------------------------------------------------|----------------|----------------|
| Physical state:                                           | solid          |                |
| Colour:                                                   |                |                |
| Odour:                                                    | characteristic |                |
| Melting point/freezing point:                             |                | not determined |
| Boiling point or initial boiling point and boiling range: |                | 2501 °C        |
| Flammability:                                             |                | not determined |
|                                                           |                | not applicable |
| Lower explosion limits:                                   |                | not determined |
| Upper explosion limits:                                   |                | not determined |
| Flash point:                                              |                | > 250 °C       |
| Decomposition temperature:                                |                | not determined |
| pH-Value:                                                 |                | not determined |
| Water solubility:                                         |                | No             |
| Solubility in other solvents                              |                |                |
| not determined                                            |                |                |
| Partition coefficient n-octanol/water:                    |                | not determined |
| Vapour pressure:                                          |                | not determined |
| Density:                                                  |                | not determined |
| Relative vapour density:                                  |                | not determined |

#### 9.2. Other information

##### Information with regard to physical hazard classes

##### Explosive properties

The product is not: Explosive.

##### Self-ignition temperature

Solid:

not determined

Gas:

not applicable

##### Oxidizing properties

Not oxidising.

##### Other safety characteristics

Evaporation rate:

not determined

Solid content:

100

### SECTION 10: Stability and reactivity

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 5 of 8

#### 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

none

#### 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 hazard classes as defined in GB CLP Regulation

##### Acute toxicity

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

##### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No     | Chemical name    |                   |         |                     |          |
|------------|------------------|-------------------|---------|---------------------|----------|
|            | Exposure route   | Dose              | Species | Source              | Method   |
| 13463-67-7 | Titanium dioxide |                   |         |                     |          |
|            | oral             | LD50 > 2000 mg/kg | Rat     | Study report (1996) | OECD 401 |

##### Irritation and corrosivity

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

##### Sensitising effects

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

##### 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.

##### Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 6 of 8

| CAS No     | Chemical name            |                   |           |                                                    |                                         |                                         |
|------------|--------------------------|-------------------|-----------|----------------------------------------------------|-----------------------------------------|-----------------------------------------|
|            | Aquatic toxicity         | Dose              | [h]   [d] | Species                                            | Source                                  | Method                                  |
| 13463-67-7 | Titanium dioxide         |                   |           |                                                    |                                         |                                         |
|            | Acute fish toxicity      | LC50 >100 mg/l    | 96 h      | Carassius                                          | REACH Registration Dossier              | OECD Guideline 203                      |
|            | Acute algae toxicity     | ErC50 >50 mg/l    | 72 h      | Raphidocelis subcapitata                           | REACH Registration Dossier              | OECD Guideline 201                      |
|            | Acute crustacea toxicity | EC50 >100 mg/l    | 48 h      | Artemia salina                                     | REACH Registration Dossier              | OECD Guideline 202                      |
|            | Fish toxicity            | NOEC >=80 mg/l    | 6 d       | Danio rerio                                        | REACH Registration Dossier              | OECD TG 210                             |
|            | Algae toxicity           | NOEC >=1 mg/l     | 32 d      | Synedra ulna, Scenedesmus quadricauda, Stigeocloni | Environ. Tox. Chem. 31,2414-2422 (2012) | In this study, the authors report there |
|            | Crustacea toxicity       | NOEC >1 mg/l      | 10 d      | Chironomus riparius                                | REACH Registration Dossier              | other: OECD Guideline 219               |
|            | Acute bacteria toxicity  | (EC50 mg/l) >1000 | 3 h       | activated sludge, domestic                         | REACH Registration Dossier              | OECD Guideline 209                      |

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### BCF

| CAS No     | Chemical name    | BCF         | Species        | Source               |
|------------|------------------|-------------|----------------|----------------------|
| 13463-67-7 | Titanium dioxide | >0.47-<3.19 | Artemia salina | REACH Registration D |

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 7 of 8

#### Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

#### Inland waterways transport (ADN)

|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

#### Marine transport (IMDG)

|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

#### Air transport (ICAO-TI/IATA-DGR)

|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | 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. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1.

## Safety Data Sheet

according to UK REACH Regulation

### VITA VM LC OPAQUE

Revision date: 15.08.2023

Product code: 148

Page 8 of 8

#### 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%  
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  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
Carc: Carcinogenicity

#### Relevant H and EUH statements (number and full text)

H351 Suspected of causing cancer.

#### 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.)*

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 1 of 12

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

### 1.1. Product identifier

VITAVM LC SEPARATOR

Product group: Zwischenprodukt  
UFI: 1H00-60WF-T007-T15E

### 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

|                         |                                       |                             |
|-------------------------|---------------------------------------|-----------------------------|
| Company name:           | VITA Zahnfabrik H.Rauter GmbH & Co.KG |                             |
| Street:                 | Spitalgasse 3                         |                             |
| Place:                  | D-79713 Bad Säckingen                 |                             |
| Post-office box:        | 1338                                  |                             |
|                         | D-79704 Bad Säckingen                 |                             |
| Telephone:              | +49(0)7761-562-0                      | Telefax: +49(0)7761-562-299 |
| E-mail:                 | info@vita-zahnfabrik.com              |                             |
| Contact person:         | regulatory affairs                    |                             |
| E-mail:                 | info@vita-zahnfabrik.com              |                             |
| Internet:               | www.vita-zahnfabrik.com               |                             |
| Responsible Department: | Regulatory Affairs                    |                             |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Flam. Liq. 2; H225  
Asp. Tox. 1; H304  
Skin Irrit. 2; H315  
Eye Dam. 1; H318  
Repr. 2; H361d  
STOT SE 3; H336  
STOT RE 2; H373  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

#### Hazard components for labelling

toluene  
cyclohexane  
methyilsilanetriyl triacetat

Signal word: Danger

#### Pictograms:





## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 2 of 12

#### Hazard statements

|       |                                                                    |
|-------|--------------------------------------------------------------------|
| H225  | Highly flammable liquid and vapour.                                |
| H304  | May be fatal if swallowed and enters airways.                      |
| H315  | Causes skin irritation.                                            |
| H318  | Causes serious eye damage.                                         |
| H336  | May cause drowsiness or dizziness.                                 |
| H361d | Suspected of damaging the unborn child.                            |
| H373  | May cause damage to organs through prolonged or repeated exposure. |
| H410  | Very toxic to aquatic life with long lasting effects.              |

#### Precautionary statements

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P273           | Avoid release to the environment.                                                                                                |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.                                    |
| P301+P310      | IF SWALLOWED: Immediately call a POISON CENTER/doctor.                                                                           |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P331           | Do NOT induce vomiting.                                                                                                          |
| P391           | Collect spillage.                                                                                                                |

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No    | Chemical name                                                                                                          |              |                  | Quantity    |
|-----------|------------------------------------------------------------------------------------------------------------------------|--------------|------------------|-------------|
|           | EC No                                                                                                                  | Index No     | REACH No         |             |
|           | Classification (GB CLP Regulation)                                                                                     |              |                  |             |
| 110-82-7  | cyclohexane                                                                                                            |              |                  | 50 - < 55 % |
|           | 203-806-2                                                                                                              | 601-017-00-1 | 01-2119463273-41 |             |
|           | Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410 |              |                  |             |
| 108-88-3  | toluene                                                                                                                |              |                  | 10 - < 15 % |
|           | 203-625-9                                                                                                              | 601-021-00-3 | 05-2114615130-69 |             |
|           | Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304                |              |                  |             |
| 4253-34-3 | methylsilanetriyl triacetat                                                                                            |              |                  | 1 - < 5 %   |
|           | 224-221-9                                                                                                              |              |                  |             |
|           | Acute Tox. 4, Skin Corr. 1B; H302 H314 EUH014                                                                          |              |                  |             |
| 1067-33-0 | dibutyltin diacetate                                                                                                   |              |                  | < 1 %       |
|           | 213-928-8                                                                                                              |              |                  |             |
|           | Acute Tox. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H300 H315 H319 H335                                              |              |                  |             |

Full text of H and EUH statements: see section 16.

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 3 of 12

#### Specific Conc. Limits, M-factors and ATE

| CAS No    | EC No     | Chemical name                                                    | Quantity    |
|-----------|-----------|------------------------------------------------------------------|-------------|
|           |           | Specific Conc. Limits, M-factors and ATE                         |             |
| 110-82-7  | 203-806-2 | cyclohexane                                                      | 50 - < 55 % |
|           |           | dermal: LD50 = 12705 mg/kg                                       |             |
| 108-88-3  | 203-625-9 | toluene                                                          | 10 - < 15 % |
|           |           | inhalation: LC50 = 49 mg/l (vapours); dermal: LD50 = 12200 mg/kg |             |
| 4253-34-3 | 224-221-9 | methylsilanetriyl triacetat                                      | 1 - < 5 %   |
|           |           | oral: ATE = 500 mg/kg                                            |             |
| 1067-33-0 | 213-928-8 | dibutyltin diacetate                                             | < 1 %       |
|           |           | dermal: LD50 = 2320 mg/kg; oral: LD50 = 32 mg/kg                 |             |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air. Medical treatment necessary.

##### 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

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

##### After ingestion

Observe risk of aspiration if vomiting occurs.

#### 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

Carbon dioxide (CO2), Foam, Extinguishing powder.

##### Unsuitable extinguishing media

Water.

#### 5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 4 of 12

#### General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Absorb with liquid-binding material (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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

##### Advice on general occupational hygiene

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.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

#### 7.3. Specific end use(s)

Use as laboratory reagent

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

| CAS No   | Substance   | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|----------|-------------|-----|-------------------|-----------|---------------|--------|
| 110-82-7 | Cyclohexane | 100 | 350               |           | TWA (8 h)     | WEL    |
|          |             | 300 | 1050              |           | STEL (15 min) | WEL    |
| 108-88-3 | Toluene     | 50  | 191               |           | TWA (8 h)     | WEL    |
|          |             | 100 | 384               |           | STEL (15 min) | WEL    |

#### 8.2. Exposure controls

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 5 of 12



#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Individual protection measures, such as personal protective equipment

##### 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 P Breakthrough time: 60 min NBR (Nitrile rubber)

##### Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing. Wear suitable protective clothing.

##### Respiratory protection

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

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid  
Colour: translucent  
Odour: characteristic

Melting point/freezing point:

not determined

Boiling point or initial boiling point and boiling range:

77 °C

Flammability:

not applicable

not applicable

Lower explosion limits:

1,2 vol. %

Upper explosion limits:

8,3 vol. %

Flash point:

< 5 °C

Auto-ignition temperature:

260 °C

Decomposition temperature:

not determined

pH-Value:

not determined

Water solubility:

No

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

<=1100 hPa

(at 50 °C)

Density:

0,86700 g/cm³

Relative vapour density:

not determined

#### Test method

DIN 51794

### 9.2. Other information

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 6 of 12

#### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

#### Other safety characteristics

Evaporation rate:

not determined

Solid content:

0,0 %

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Highly flammable.

#### 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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

#### 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 hazard classes as defined in GB CLP Regulation

##### Acute toxicity

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

##### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 7 of 12

| CAS No    | Chemical name              |                  |         |        |        |
|-----------|----------------------------|------------------|---------|--------|--------|
|           | Exposure route             | Dose             | Species | Source | Method |
| 110-82-7  | cyclohexane                |                  |         |        |        |
|           | dermal                     | LD50 12705 mg/kg |         |        |        |
| 108-88-3  | toluene                    |                  |         |        |        |
|           | dermal                     | LD50 12200 mg/kg | Rabbit  | GESTIS |        |
|           | inhalation (4 h) vapour    | LC50 49 mg/l     | Rat     | GESTIS |        |
| 4253-34-3 | methysilanetriyl triacetat |                  |         |        |        |
|           | oral                       | ATE 500 mg/kg    |         |        |        |
| 1067-33-0 | dibutyltin diacetate       |                  |         |        |        |
|           | oral                       | LD50 32 mg/kg    |         |        |        |
|           | dermal                     | LD50 2320 mg/kg  |         |        |        |

#### Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

#### Sensitising effects

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

#### Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

#### STOT-single exposure

May cause drowsiness or dizziness. (cyclohexane)

#### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (toluene)

#### Aspiration hazard

May be fatal if swallowed and enters airways.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

### SECTION 12: Ecological information

#### 12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

| CAS No   | Chemical name        |                 |           |                   |        |        |
|----------|----------------------|-----------------|-----------|-------------------|--------|--------|
|          | Aquatic toxicity     | Dose            | [h]   [d] | Species           | Source | Method |
| 108-88-3 | toluene              |                 |           |                   |        |        |
|          | Acute fish toxicity  | LC50 13 mg/l    | 96 h      | Carassius auratus | IUCLID |        |
|          | Acute algae toxicity | ErC50 12,5 mg/l | 72 h      |                   | GESTIS |        |

#### 12.2. Persistence and degradability

The product has not been tested.

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 8 of 12

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

| CAS No   | Chemical name | Log Pow |
|----------|---------------|---------|
| 108-88-3 | toluene       | 2,73    |

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. 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

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

UN 1993

##### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Special Provisions:

274 601 640D

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No:

33

Tunnel restriction code:

D/E

#### Inland waterways transport (ADN)

##### 14.1. UN number or ID number:

UN 1993

##### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 9 of 12

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Special Provisions:

274 601 640D

Limited quantity:

1 L

Excepted quantity:

E2

#### Marine transport (IMDG)

##### 14.1. UN number or ID number:

UN 1993

##### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

II

Hazard label:

3



Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-E, S-E

#### Air transport (ICAO-TI/IATA-DGR)

##### 14.1. UN number or ID number:

UN 1993

##### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

II

Hazard label:

3



Special Provisions:

A3

Limited quantity Passenger:

1 L

Passenger LQ:

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger:

353

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

364

IATA-max. quantity - Cargo:

60 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

Yes



Danger releasing substance:

cyclohexane

#### 14.6. Special precautions for user

Warning: Combustible liquid.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable



## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 10 of 12

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 48, Entry 57, Entry 75

2010/75/EU (VOC): 10 % (86,7 g/l)

2004/42/EC (VOC): 10 % (86,7 g/l)

Information according to 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

Additional information: P5c

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1.

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 11 of 12

#### 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%  
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>  
Flam. Liq: Flammable liquids  
Acute Tox: Acute toxicity  
Asp. Tox: Aspiration hazard  
Skin Corr: Skin corrosion  
Skin Irrit: Skin irritation  
Eye Dam: Eye damage  
Eye Irrit: Eye irritation  
Repr: Reproductive toxicity  
STOT SE: Specific target organ toxicity - single exposure  
STOT RE: Specific target organ toxicity - repeated exposure  
Aquatic Acute: Acute aquatic hazard  
Aquatic Chronic: Chronic aquatic hazard

## Safety Data Sheet

according to UK REACH Regulation

### VITAVM LC SEPARATOR

Revision date: 10.07.2023

Product code: 152

Page 12 of 12

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification          | Classification procedure |
|-------------------------|--------------------------|
| Flam. Liq. 2; H225      | On basis of test data    |
| Asp. Tox. 1; H304       | Calculation method       |
| Skin Irrit. 2; H315     | Calculation method       |
| Eye Dam. 1; H318        | Calculation method       |
| Repr. 2; H361d          | Calculation method       |
| STOT SE 3; H336         | Calculation method       |
| STOT RE 2; H373         | Calculation method       |
| Aquatic Acute 1; H400   | Calculation method       |
| Aquatic Chronic 1; H410 | Calculation method       |

#### Relevant H and EUH statements (number and full text)

|        |                                                                    |
|--------|--------------------------------------------------------------------|
| H225   | Highly flammable liquid and vapour.                                |
| H300   | Fatal if swallowed.                                                |
| H302   | Harmful if swallowed.                                              |
| H304   | May be fatal if swallowed and enters airways.                      |
| H314   | Causes severe skin burns and eye damage.                           |
| H315   | Causes skin irritation.                                            |
| H318   | Causes serious eye damage.                                         |
| H319   | Causes serious eye irritation.                                     |
| H335   | May cause respiratory irritation.                                  |
| H336   | May cause drowsiness or dizziness.                                 |
| H361d  | Suspected of damaging the unborn child.                            |
| H373   | May cause damage to organs through prolonged or repeated exposure. |
| H400   | Very toxic to aquatic life.                                        |
| H410   | Very toxic to aquatic life with long lasting effects.              |
| EUH014 | Reacts violently with water.                                       |

#### 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.)*

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 1 of 7

## 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

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Post-office box: 1338

D-79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

e-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

e-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

### 1.4. Emergency telephone

+49-(0)761-19240

#### number:

#### Further Information

medical device

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### UN GHS (ST/SG/AC.10/11/Rev.8)

Hazard categories:

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### UN GHS (ST/SG/AC.10/11/Rev.8)

#### Hazard components for labelling

2,2'-ethylenedioxydiethyl dimethacrylate

7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers)

Signal word: Warning

Pictograms:



#### Hazard statements

H317

May cause an allergic skin reaction.

H412

Harmful to aquatic life with long lasting effects.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 2 of 7

#### Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No     | Chemical name                                                                                           | Quantity    |
|------------|---------------------------------------------------------------------------------------------------------|-------------|
|            | Classification (UN GHS (ST/SG/AC.10/11/Rev.8))                                                          |             |
| 72869-86-4 | 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers) | 15 - < 20 % |
|            | Skin Sens. 1B, Aquatic Chronic 3; H317 H412                                                             |             |
| 109-16-0   | 2,2'-ethylenedioxydiethyl dimethacrylate                                                                | 15 - < 20 % |
|            | Skin Sens. 1B; H317                                                                                     |             |
| 94108-97-1 | Ditrimethylolpropane Tetraacrylate                                                                      | 1 - < 5 %   |
|            | Eye Irrit. 2, Aquatic Chronic 2; H319 H411                                                              |             |
| 2867-47-2  | 2-dimethylaminoethyl methacrylate                                                                       | < 1 %       |
|            | Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H312 H302 H315 H319 H317         |             |

### SECTION 4: First aid measures

#### 4.1. 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.

#### 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

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 3 of 7

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

##### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Take up mechanically. 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

No special measures are necessary.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

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.

#### 7.2. 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.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls



Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye/face protection.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 4 of 7

#### 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: 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.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: viscous  
 Colour:  
 Odour: characteristic

#### Changes in the physical state

Melting point/freezing point: not determined  
 Boiling point or initial boiling point and boiling range: > 283 °C  
 Flash point: 151 °C

#### Flammability

Solid/liquid: not determined  
 Gas: not applicable

#### Explosive properties

The product is not: Explosive.

#### Self-ignition temperature

Solid: not determined  
 Gas: not applicable

Decomposition temperature: not determined

pH-Value: not determined

Water solubility: No

#### Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

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

Density: not determined

Relative vapour density: not determined

### 9.2. Other information

#### Information with regard to physical hazard classes

Oxidizing properties  
 Not oxidising.

#### Other safety characteristics

Solid content: 62,84 %

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 5 of 7

Evaporation rate:

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

none

### 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 hazard classes as defined in GB CLP Regulation

#### Acute toxicity

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

| CAS No    | Chemical name                     |                |         |        |        |
|-----------|-----------------------------------|----------------|---------|--------|--------|
|           | Exposure route                    | Dose           | Species | Source | Method |
| 2867-47-2 | 2-dimethylaminoethyl methacrylate |                |         |        |        |
|           | oral                              | ATE 500 mg/kg  |         |        |        |
|           | dermal                            | ATE 1100 mg/kg |         |        |        |

#### 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.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

## SECTION 12: Ecological information



## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 6 of 7

#### **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.

#### **12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### **12.7. 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

#### **Marine transport (IMDG)**

##### **14.1. UN number or ID 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 or ID 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. Maritime transport in bulk according to IMO instruments**

not applicable

### SECTION 15: Regulatory information

#### **National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC flow

Revision date: 13.08.2019

Product code: 284

Page 7 of 7

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,6,7,8,9,11,12,13,14,15,16.

### 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%  
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>

### 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.)*

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 1 of 8

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

### 1.1. Product identifier

VITA VM LC PRE OPAQUE

### 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

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Post-office box: 1338

D-79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

e-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

e-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

### 1.4. Emergency telephone

+49-(0)761-19240

#### number:

#### Further Information

medical device

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### UN GHS (ST/SG/AC.10/11/Rev.8)

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes serious eye irritation.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### UN GHS (ST/SG/AC.10/11/Rev.8)

#### Hazard components for labelling

7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers)

Signal word: Warning

Pictograms:



#### Hazard statements

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 2 of 8

#### Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No     | Chemical name                                                                                           | Quantity    |
|------------|---------------------------------------------------------------------------------------------------------|-------------|
|            | Classification (UN GHS (ST/SG/AC.10/11/Rev.8))                                                          |             |
| 72869-86-4 | 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers) | 30 - < 35 % |
|            | Skin Sens. 1B, Aquatic Chronic 3; H317 H412                                                             |             |
| 94108-97-1 | Ditrimethylolpropane Tetraacrylate                                                                      | 10 - < 15 % |
|            | Eye Irrit. 2, Aquatic Chronic 2; H319 H411                                                              |             |
| 2867-47-2  | 2-dimethylaminoethyl methacrylate                                                                       | < 1 %       |
|            | Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H312 H302 H315 H319 H317         |             |

### SECTION 4: First aid measures

#### 4.1. 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. Wash with plenty of water.

##### 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.

#### 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

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 3 of 8

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

##### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### Other information

Take up mechanically. 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

No special measures are necessary.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

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.

#### 7.2. 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.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

| CAS No  | Substance        | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|------------------|-----|-------------------|-----------|---------------|--------|
| 79-41-4 | Methacrylic acid | 20  | 72                |           | TWA (8 h)     | WEL    |
|         |                  | 40  | 143               |           | STEL (15 min) | WEL    |

#### 8.2. Exposure controls

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 4 of 8



#### Individual protection measures, such as personal protective equipment

##### 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 P Breakthrough time: 30 min NBR (Nitrile rubber)

##### Skin protection

Use of protective clothing.

##### Respiratory protection

Provide adequate ventilation as well as local exhaust at critical locations. Technical ventilation of workplace

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:

Colour:

#### Changes in the physical state

Melting point/freezing point:

not determined

Boiling point or initial boiling point and boiling range:

?

Flash point:

151 °C

#### Flammability

Solid/liquid:

not determined

Gas:

not applicable

#### Explosive properties

The product is not: Explosive.

Lower explosion limits:

not determined

Upper explosion limits:

not determined

#### Self-ignition temperature

Solid:

not determined

Gas:

not applicable

Decomposition temperature:

not determined

pH-Value:

not determined

Water solubility:

No

#### Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:  
(at 50 °C)

<=1100 hPa

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 5 of 8

Density: not determined

Relative vapour density: not determined

#### 9.2. Other information

##### Information with regard to physical hazard classes

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Solid content: 49,7 %

Evaporation rate: 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

none

#### 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 hazard classes as defined in GB CLP Regulation

##### Acute toxicity

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

| CAS No    | Chemical name                     |                |         |        |        |
|-----------|-----------------------------------|----------------|---------|--------|--------|
|           | Exposure route                    | Dose           | Species | Source | Method |
| 2867-47-2 | 2-dimethylaminoethyl methacrylate |                |         |        |        |
|           | oral                              | ATE 500 mg/kg  |         |        |        |
|           | dermal                            | ATE 1100 mg/kg |         |        |        |

##### Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: 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-dioxa-5,12-diaza-hexadecan-1,16-diol-dimethacrylat (mixture of isomers);

2-dimethylaminoethyl methacrylate)

##### Carcinogenic/mutagenic/toxic effects for reproduction

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

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 6 of 8

#### 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.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### 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.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. 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. Waste codes/waste designations according to EWC/AVV

### SECTION 14: Transport information

#### Marine transport (IMDG)

##### 14.1. UN number or ID 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 or ID 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



## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 7 of 8

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,11,12,13,14,15,16.

#### 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%

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

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### VITA VM LC PRE OPAQUE

Revision date: 13.08.2019

Product code: 263

Page 8 of 8

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>

#### 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.

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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 1 of 8

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

### 1.1. Product identifier

VITAVM LC MODELLING LIQUID

### 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

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

### 1.4. Emergency telephone

+49-(0)761-19240

#### number:

#### Further Information

medical device

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1B

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

2,2'-ethylenedioxydiethyl dimethacrylate

2-dimethylaminoethyl methacrylate

Signal word: Warning

#### Pictograms:



#### Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

#### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 2 of 8

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

| CAS No     | Chemical name                                                                                   |              |                  | Quantity    |
|------------|-------------------------------------------------------------------------------------------------|--------------|------------------|-------------|
|            | EC No                                                                                           | Index No     | REACH No         |             |
|            | GHS Classification                                                                              |              |                  |             |
| 109-16-0   | 2,2'-ethylenedioxydiethyl dimethacrylate                                                        |              |                  | 75 - < 80 % |
|            | 203-652-6                                                                                       |              | 01-2119969287-21 |             |
|            | Skin Sens. 1B; H317                                                                             |              |                  |             |
| 90551-76-1 | Methacrylic ester                                                                               |              |                  | 15 - < 20 % |
|            | 292-094-7                                                                                       | 607-134-00-4 |                  |             |
|            | Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335                                          |              |                  |             |
| 2867-47-2  | 2-dimethylaminoethyl methacrylate                                                               |              |                  | < 1 %       |
|            | 220-688-8                                                                                       | 607-132-00-3 |                  |             |
|            | Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H312 H302 H315 H319 H317 |              |                  |             |

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. 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

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.

#### 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 3 of 8

#### 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.

#### 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

No special measures are necessary.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### 7.2. 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.

#### 7.3. Specific end use(s)

Use as laboratory reagent

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.2. 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/face protection.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 4 of 8

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. NBR (Nitrile rubber) Recommended glove articles KCL Camtril Velour Breakthrough time (maximum wearing time) 30 min

#### Skin protection

Use of protective clothing.

#### Respiratory protection

Provide adequate ventilation as well as local exhaust at critical locations. Technical ventilation of workplace

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                 |                |
|-----------------|----------------|
| Physical state: | Liquid         |
| Colour:         | colourless     |
| Odour:          | characteristic |
| pH-Value:       | not determined |

#### Changes in the physical state

|                                          |                |
|------------------------------------------|----------------|
| Melting point:                           | not determined |
| Initial boiling point and boiling range: | ?              |
| Flash point:                             | ?              |

#### Flammability

|        |                |
|--------|----------------|
| Solid: | not applicable |
| Gas:   | not applicable |

#### Explosive properties

The product is not: Explosive.

|                         |                |
|-------------------------|----------------|
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |

#### Auto-ignition temperature

|        |                |
|--------|----------------|
| Solid: | not applicable |
| Gas:   | not applicable |

|                            |                |
|----------------------------|----------------|
| Decomposition temperature: | not determined |
|----------------------------|----------------|

#### Oxidizing properties

Not oxidising.

|                                |            |
|--------------------------------|------------|
| Vapour pressure:<br>(at 50 °C) | <=1100 hPa |
|--------------------------------|------------|

|          |               |
|----------|---------------|
| Density: | 1,06000 g/cm³ |
|----------|---------------|

|                   |    |
|-------------------|----|
| Water solubility: | No |
|-------------------|----|

#### Solubility in other solvents

not determined

|                        |                |
|------------------------|----------------|
| Partition coefficient: | not determined |
|------------------------|----------------|

|                 |                |
|-----------------|----------------|
| Vapour density: | not determined |
|-----------------|----------------|

|                   |                |
|-------------------|----------------|
| Evaporation rate: | not determined |
|-------------------|----------------|

### 9.2. Other information

|                |       |
|----------------|-------|
| Solid content: | 0,0 % |
|----------------|-------|

## SECTION 10: Stability and reactivity

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 5 of 8

#### 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

none

#### 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.

| CAS No     | Chemical name                     |                 |         |        |        |
|------------|-----------------------------------|-----------------|---------|--------|--------|
|            | Exposure route                    | Dose            | Species | Source | Method |
| 90551-76-1 | Methacrylic ester                 |                 |         |        |        |
|            | dermal                            | LD50 3000 mg/kg |         |        |        |
| 2867-47-2  | 2-dimethylaminoethyl methacrylate |                 |         |        |        |
|            | oral                              | ATE 500 mg/kg   |         |        |        |
|            | dermal                            | ATE 1100 mg/kg  |         |        |        |

##### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

##### Sensitising effects

May cause an allergic skin reaction. (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.

##### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 6 of 8

#### 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. Results of PBT and vPvB assessment

The product has not been tested.

#### 12.6. Other adverse effects

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. 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 (ADR/RID)**

##### 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.

#### **Inland waterways transport (ADN)**

##### 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.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 7 of 8

#### 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

##### EU regulatory information

Information according to 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

##### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### 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%

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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### VITAVM LC MODELLING LIQUID

Revision date: 02.08.2019

Product code: 151

Page 8 of 8

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

#### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Skin Irrit. 2; H315 | Calculation method       |
| Eye Irrit. 2; H319  | Calculation method       |
| Skin Sens. 1B; H317 | Calculation method       |

#### Relevant H and EUH statements (number and full text)

|      |                                      |
|------|--------------------------------------|
| H302 | Harmful if swallowed.                |
| H312 | Harmful in contact with skin.        |
| H315 | Causes skin irritation.              |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation.       |
| H335 | May cause respiratory irritation.    |

#### 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.)*