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

1.1. Product identifier

VITA VM LC CLEANER

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
E-mail: info@vita-zahnfabrik.com
Internet: www.vita-zahnfabrik.com

1.4. Emergency telephone number:
+49-(0)761-19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:
Highly flammable liquid and vapour.
Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

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.
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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>90 - &lt; 95 %</td>
</tr>
<tr>
<td>200-578-6</td>
<td>603-002-00-5</td>
<td>01-2119457610-43</td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>1 - &lt; 5 %</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Eye Irrit. 2; H225 H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066</td>
<td></td>
</tr>
</tbody>
</table>

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.

**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.

**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

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

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>Butan-2-one (methyl ethyl ketone)</td>
<td>200</td>
<td>600</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>300</td>
<td>899</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000</td>
<td>1920</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Biological Monitoring Guidance Values (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Parameter</th>
<th>Value</th>
<th>Test material</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>Butan-2-one</td>
<td>butan-2-one</td>
<td>70 µmol/L</td>
<td>urine</td>
<td>Post shift</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Protective and hygienic 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 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 (maximum wearing 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 exhaustion 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
pH-Value: not determined

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: 78 °C
Flash point: 13 °C

Flammability
Solid: not applicable
Gas: not applicable

Explosive properties
The product is not: Explosive.
Lower explosion limits: 3,5 vol. %
Upper explosion limits: 15 vol. %
Ignition temperature: 425 °C

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

Decomposition temperature: not determined

Oxidizing properties
Not oxidising.
Vapour pressure: <=1100 hPa
(at 50 °C)
Density: 0,80000 g/cm³

Solubility in other solvents
not determined
**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 toxicological effects**

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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
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</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>dermal</td>
<td>LD50</td>
<td>7060</td>
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<td></td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>dermal</td>
<td>LD50</td>
<td>5000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 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
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)

14.1. UN 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: F1

Classification code: 144 601
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: UN 1170
### 14.2. UN proper shipping name:
ETHANOL (ETHYL ALCOHOL)

### 14.3. Transport hazard class(es):
3

### 14.4. Packing group:
II

<table>
<thead>
<tr>
<th>Hazard label:</th>
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</table>

<table>
<thead>
<tr>
<th>Classification code:</th>
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<tbody>
<tr>
<td>Special Provisions:</td>
<td>144 601</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E2</td>
</tr>
</tbody>
</table>

#### Marine transport (IMDG)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1170</th>
</tr>
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<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>ETHANOL (ETHYL ALCOHOL)</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special Provisions:</th>
<th>144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantity:</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E2</td>
</tr>
<tr>
<td>EmS:</td>
<td>F-E, S-D</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>ETHYL ALCOHOL</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
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<tr>
<td>14.4. Packing group:</td>
<td>II</td>
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<tr>
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<table>
<thead>
<tr>
<th>Special Provisions:</th>
<th>A3 A58 A180</th>
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<tbody>
<tr>
<td>Limited quantity Passenger:</td>
<td>1 L</td>
</tr>
<tr>
<td>Passenger LQ:</td>
<td>Y341</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E2</td>
</tr>
</tbody>
</table>

| 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
ENVIROMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user
Warning: Combustible liquid.

### 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):
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

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
according to Regulation (EC) No 1907/2006

VITA Zahnfabrik H.Rauter GmbH & Co.KG

VITA VM LC CLEANER

Revision date: 13.08.2019
Product code: 265

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2; H225</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

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.)*