1. Identification

**Product identifier**
Vita VM LC CLEANER

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

**Use of the substance/mixture**
Use as laboratory reagent

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

- **Company name:** VITA Zahnfabrik H. Rauter GmbH & Co. KG
- **Post-office box:** 1338
- **Address:** 79704 Bad Säckingen
- **Telephone:** +49(0)7761-562-0
- **Telefax:** +49(0)7761-562-299
- **e-mail:** info@vita-zahnfabrik.com
- **Internet:** www.vita-zahnfabrik.com
- **Emergency phone number:** +49-(0)761-19240

2. Hazard(s) identification

**Classification of the chemical**

29 CFR Part 1910.1200

**Hazard categories:**
- Flammable liquids: Flam. Liq. 2
- Serious eye damage/eye irritation: Eye Irrit. 2A

**Hazard Statements:**
- Highly flammable liquid and vapor
- Causes serious eye irritation

**Label elements**

29 CFR Part 1910.1200

- **Signal word:** Danger
- **Pictograms:**

**Hazard statements**
- Highly flammable liquid and vapor
- Causes serious eye irritation

**Precautionary statements**
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Keep container tightly closed.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Hazard not otherwise classified**
- No information available.

3. Composition/information on ingredients

**Mixtures**
Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>95 %</td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>1 %</td>
</tr>
</tbody>
</table>

4. First-aid measures

**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.

**Most important symptoms and effects, both acute and delayed**

No information available.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

5. Fire-fighting measures

**Extinguishing media**

- **Suitable extinguishing media**
  - Carbon dioxide (CO2), Foam, Extinguishing powder.
- **Unsuitable extinguishing media**
  - Water.

**Specific hazards arising from the chemical**

- Highly flammable. Vapours can form explosive mixtures with air.

**Special protective equipment and precautions for fire-fighters**

- 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.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

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

**Environmental precautions**

- Do not allow uncontrolled discharge of product into the environment. Danger of explosion

**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.

**Reference to other sections**

- Safe handling: see section 7
7. Handling and storage

Precautions for safe handling

Advice on safe handling

No special measures are necessary.

Advice on protection against fire and explosion

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

Vapours can form explosive mixtures with air.

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.

Advice on storage compatibility

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

8. Exposure controls/personal protection

Control parameters

Exposure limits

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>TWA (8 h)</th>
<th>STEL (15 min)</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>2-Butanone (Methyl ethyl ketone)</td>
<td>200</td>
<td>300</td>
<td>TWA (8 h)</td>
<td>PEL</td>
</tr>
<tr>
<td>78-93-3</td>
<td>2-Butanone</td>
<td>200</td>
<td>300</td>
<td>TWA (8 h)</td>
<td>REL</td>
</tr>
<tr>
<td>78-93-3</td>
<td>Methyl ethyl ketone</td>
<td>200</td>
<td>300</td>
<td>TWA (8 h)</td>
<td>ACGIH-2016</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>1000</td>
<td>1000</td>
<td>STEL (15 min)</td>
<td>ACGIH-2016</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol (Ethanol)</td>
<td>1000</td>
<td>1000</td>
<td>TWA (8 h)</td>
<td>PEL</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>1000</td>
<td>1000</td>
<td>TWA (8 h)</td>
<td>REL</td>
</tr>
<tr>
<td>78-93-3</td>
<td>Methyl ethyl ketone</td>
<td>200</td>
<td>300</td>
<td>STEL (15 min)</td>
<td>ACGIH-2016</td>
</tr>
</tbody>
</table>

Biological Exposure Indices (BEI-ACGIH)

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>Determinant</th>
<th>Value</th>
<th>Test material</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>METHYL ETHYL KETONE</td>
<td>Methyl ethyl ketone</td>
<td>2 mg/L</td>
<td>urine</td>
<td>End of shift</td>
</tr>
</tbody>
</table>

Exposure controls

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
Eye/face protection
Suitable eye protection: goggles.

Hand protection
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Recommended glove articles KCL Dermatril P Breakthrough time (maximum wearing time) 30 min NBR (Nitrile rubber)

Skin protection
Wear suitable protective clothing.

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

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>colourless</td>
</tr>
</tbody>
</table>

Test method

pH-Value: not determined

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

Flammability
Solid: not applicable
Gas: not applicable

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 oxidizing.

Vapor pressure: <=1100 hPa
(at 50 °C)
Density: 0.80000 g/cm³

Solubility in other solvents
not determined

Partition coefficient: not determined
Vapor density: not determined
Evaporation rate: not determined

Other information
Solid content: 0.0 %

10. Stability and reactivity

Reactivity
Highly flammable.

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

Possibility of hazardous reactions
No known hazardous reactions.

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

Incompatible materials
No information available.

Hazardous decomposition products
No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

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

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

Sensitizing 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.

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

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

Carcinogenicity (OSHA):
No ingredient of this mixture is listed.

Carcinogenicity (IARC):
Ethanol in alcoholic beverages (CAS 64-17-5) is listed in group 1.

Carcinogenicity (NTP):
No ingredient of this mixture is listed.

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

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

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

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

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

**Other adverse effects**
No information available.

**Further information**
Avoid release to the environment.

13. Disposal considerations

**Waste treatment methods**

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

**Contaminated packaging**
Wash with plenty of water. Handle contaminated packages in the same way as the substance itself. Waste codes/waste designations according to EWC/AVV

14. Transport information

**Marine transport (IMDG)**

- **UN number:** UN 1170
- **UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)
- **Transport hazard class(es):** 3
- **Packing group:** II
- **Hazard label:** 3

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

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

- **UN number:** UN 1170
- **UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)
- **Transport hazard class(es):** 3
- **Packing group:** II
- **Hazard label:** 3
Safety Data Sheet

according to 29 CFR 1910.1200(g)

Vita VM LC CLEANER

Revision date: 03.03.2017
Product code: 265-US

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

Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user
Warning: Combustible liquid.

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

15. Regulatory information

U.S. Regulations

National regulatory information
SARA Section 304 CERCLA:
Methyl ethyl ketone (78-93-3): Reportable quantity = 5,000 (2270) lbs. (kg)
SARA Section 311/312 Hazards:
etyl alcohol (64-17-5): Fire hazard, Immediate (acute) health hazard
Methyl ethyl ketone (78-93-3): Fire hazard, Immediate (acute) health hazard
Clean Air Act Section 112(b):
Methyl ethyl ketone (78-93-3)

State Regulations
Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)
This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Revision date: 03.03.2017
Revision No: 1

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

Other data
The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary 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.)