1. Identification

Product identifier
VITASIL

Recommended use of the chemical and restrictions on use

Use of the substance/mixture
Use as laboratory reagent

Details of the supplier of the safety data sheet

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

Emergency phone number:
+49-(0)761-19240

Further Information
medical device

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200
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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep cool.

Hazards not otherwise classified
No information available.
3. Composition/information on ingredients

Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>49.5 %</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of first aid measures

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: Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

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. Do not breathe gas/fumes/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
- Personal protection equipment: see section 8
- Disposal: see section 13

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>ppm</th>
<th>mg/m³</th>
<th>f/cc</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>ACGIH-2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000</td>
<td>1900</td>
<td></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>1900</td>
<td></td>
<td>TWA (8 h)</td>
<td>PEL</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>1000</td>
<td>1900</td>
<td></td>
<td>TWA (8 h)</td>
<td>REL</td>
</tr>
</tbody>
</table>

Exposure controls

Protective and hygiene measures
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat 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 NBR (Nitrile rubber) 30 min breakthrough time (maximum wearing time)

Skin protection
Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection
In case of inadequate ventilation wear respiratory protection. Technical ventilation of workplace
# 9. Physical and chemical properties

## Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>colourless</td>
</tr>
<tr>
<td>Odor:</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH-Value:</td>
<td>not determined</td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>78 °C</td>
</tr>
<tr>
<td>Flash point:</td>
<td>15 °C</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td></td>
</tr>
<tr>
<td>Solid:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Gas:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Lower explosion limits:</td>
<td>3,5 vol. %</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>15 vol. %</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>425 °C</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td></td>
</tr>
<tr>
<td>Solid:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Gas:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>not determined</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td></td>
</tr>
<tr>
<td>Not oxidizing.</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>&lt;=1100 hPa</td>
</tr>
<tr>
<td>(at 50 °C)</td>
<td></td>
</tr>
<tr>
<td>Density:</td>
<td>0,89700 g/cm³</td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>not determined</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>not determined</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>not determined</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td></td>
</tr>
<tr>
<td>Solid content:</td>
<td>0,0 %</td>
</tr>
</tbody>
</table>

## 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>
</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.

**Additional information on tests**
- This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

### 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. Completely emptied packages can be recycled.

14. Transport information

Marine transport (IMDG)

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

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

Air transport (ICAO-TI/IATA-DGR)

<table>
<thead>
<tr>
<th>UN number:</th>
<th>UN 1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name:</td>
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<td>II</td>
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<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
</tbody>
</table>

| Limited quantity Passenger: | 1 L                          |
|                            |                              |
| Passenger LQ:              | Y341                         |
| Exempted 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 311/312 Hazards:
ethyl alcohol (64-17-5): Fire hazard, Immediate (acute) health hazard

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: 03.01.2017
Revision No: 1

Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(IMEuropean 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 Labeling 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 above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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