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

1.1. Product identifier

VITA SPRAY-ON INDICATOR 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

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

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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

UN-GHS (Rev.3)

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

UN-GHS (Rev.3)

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.
**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>Ethanol</td>
<td>75 - 80 %</td>
</tr>
</tbody>
</table>

**SECTION 4: First aid measures**

### 4.1. Description of first aid measures

**General information**

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

**After inhalation**

Provide fresh air. In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

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

**After ingestion**

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

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

- Use water.
- Use dry powder.
- Use foam.
Carbon dioxide (CO2), Foam, Extinguishing powder.

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. 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
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. Remove persons to safety.

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
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.

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
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>

Additional advice on limit values

Value:
- Propane-1,2-diol
  - 150 ppm (474 mg/m³) TWA - Vapour, particulates
  - 10 mg/m³ TWA - particulates only
- Ethanol
  - 1000 ppm (1880 mg/m³) TWA
- Butanone; ethyl methyl ketone
  - 150 ppm (445 mg/m³) TWA
  - 300 ppm (890 mg/m³) STEL

Source: Workplace exposure standards for airborne contaminants, Publication date: 16 December 2019

8.2. Exposure controls

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

Protective and hygiene measures
- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes.

Eye/face protection
- Wear eye/face protection.

Hand protection
- Wear suitable gloves.
  - Suitable material: NBR (Nitrile rubber)
  - Breakthrough time (maximum wearing time) 30 min

  The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection
- Wear suitable protective clothing.

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

Environmental exposure controls
- Avoid release to the environment.
### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>pink</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td></td>
</tr>
<tr>
<td>pH-Value</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>78 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>15 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The product is not: Explosive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapours can form explosive mixtures with air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>3,5 vol. %</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>15 vol. %</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>425 °C</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not oxidising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt;=1100 hPa</td>
<td></td>
</tr>
<tr>
<td>(at 50 °C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>57 hPa DIN EN 12</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>0,8 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>easily soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Viscosity / dynamic</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Viscosity / kinematic</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

#### 9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
</tr>
</tbody>
</table>

### 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
Vapours can form explosive mixtures with air.

10.4. Conditions to avoid
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

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

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

   Irritation and corrosivity
   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.

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. 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

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADG)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, N.O.S. (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>Special Provisions:</td>
<td>274 601 640D</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 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, N.O.S. (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>
<tr>
<td>Special Provisions:</td>
<td>274</td>
</tr>
<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-E</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, N.O.S. (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>
<tr>
<td>Special Provisions:</td>
<td>A3</td>
</tr>
<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>
<tr>
<td>IATA-packing instructions - Passenger:</td>
<td>353</td>
</tr>
<tr>
<td>IATA-max. quantity - Passenger:</td>
<td>5 L</td>
</tr>
<tr>
<td>IATA-packing instructions - Cargo:</td>
<td>364</td>
</tr>
<tr>
<td>IATA-max. quantity - Cargo:</td>
<td>60 L</td>
</tr>
</tbody>
</table>

### 14.5. Environmental hazards

ENVIRONMENTALLY 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

National regulatory information

Additional information

AICS:
Propane-1,2-diol: Yes.
Ethanol: Yes.
butanone; ethyl methyl ketone: Yes.

SUSMP:
Propane-1,2-diol: No
Ethanol: No
butanone; ethyl methyl ketone: Yes.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
ADG: Australian Dangerous Goods
AICS: Australian Inventory of Chemical Substances
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service
STEL: Short-term exposure limit
TWA: time-weighted average
TI: Technical Instructions
DGR: Dangerous Goods Regulations
UN: United Nations
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.
### (The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor’s safety data sheet.)