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

1.1. Product identifier

VITACOLL

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 number:

+49-(0)761-19240

Further Information

medical device

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness or dizziness.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
methyl methacrylate
butanone; ethyl methyl ketone

Signal word: Danger

Pictograms:

Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

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>EC No</td>
<td>Index No</td>
<td>REACH No</td>
</tr>
<tr>
<td>GHS Classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>45 - &lt; 50 %</td>
</tr>
<tr>
<td>201-159-0</td>
<td>606-002-00-3</td>
<td>01-2119457290-43</td>
</tr>
<tr>
<td>Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80-62-6</td>
<td>methyl methacrylate</td>
<td>45 - &lt; 50 %</td>
</tr>
<tr>
<td>201-297-1</td>
<td>607-035-00-6</td>
<td>01-2119452498-28</td>
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<tr>
<td>Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335</td>
<td></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. 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 skin, wash immediately with plenty of water and soap.

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

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

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

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
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.

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 exhaustion 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
8.2. Exposure controls

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

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 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 Butoject Butyl caoutchouc (butyl rubber)
Breakthrough time (maximum wearing time) 60 min

Skin protection
Wear suitable protective clothing.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH-Value:</td>
<td>not determined</td>
</tr>
</tbody>
</table>

Changes in the physical state

<table>
<thead>
<tr>
<th>Melting point:</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>79 °C</td>
</tr>
<tr>
<td>Flash point:</td>
<td>&lt; 12 °C</td>
</tr>
</tbody>
</table>

Flammability

<table>
<thead>
<tr>
<th>Solid:</th>
<th>not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas:</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
Explosive properties
The product is not: Explosive.
Lower explosion limits: 1,8 vol. %
Upper explosion limits: 12,5 vol. %
Ignition temperature: 430 °C

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

Oxidizing properties
Not oxidising.

Vapour pressure: \( \leq 1100 \text{ hPa} \)
(at 50 °C)
Density: 0,87200 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

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.
### Exposure route, Dose, Species, Source, Method

<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>78-93-3</td>
<td>butanone; ethyl methyl ketone</td>
<td>dermal</td>
<td>LD50</td>
<td>5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80-62-6</td>
<td>methyl methacrylate</td>
<td>dermal</td>
<td>LD50</td>
<td>&gt; 5000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Irritation and corrosivity
- Causes skin irritation.
- Causes serious eye irritation.

### Sensitising effects
- May cause an allergic skin reaction. (methyl methacrylate)

### Carcinogenic/mutagenic/toxic effects for reproduction
- Based on available data, the classification criteria are not met.

### STOT-single exposure
- May cause respiratory irritation. (methyl methacrylate)
- May cause drowsiness or dizziness. (butanone; ethyl methyl ketone)

### 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**
  - Handle contaminated packages in the same way as the substance itself.
## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; butanone; ethyl methyl ketone)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
**Hazard label:** 3

<table>
<thead>
<tr>
<th>Classification code:</th>
<th>F1</th>
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<tbody>
<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>
<tr>
<td>Transport category:</td>
<td>2</td>
</tr>
<tr>
<td>Hazard No:</td>
<td>33</td>
</tr>
<tr>
<td>Tunnel restriction code:</td>
<td>D/E</td>
</tr>
</tbody>
</table>

### Inland waterways transport (ADN)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; butanone; ethyl methyl ketone)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
**Hazard label:** 3

<table>
<thead>
<tr>
<th>Classification code:</th>
<th>F1</th>
</tr>
</thead>
<tbody>
<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)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; butanone; ethyl methyl ketone)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
**Hazard label:** 3

<table>
<thead>
<tr>
<th>Special Provisions:</th>
<th>274</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-E</td>
</tr>
</tbody>
</table>

### Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: UN 1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; butanone; ethyl methyl ketone)

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: 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

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%
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>Skin Irrit. 2; H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1; H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H335</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H336</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

- H225: Highly flammable liquid and vapour.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H335: May cause respiratory 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.)