



# Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

## Citrus Sap

Version number: GHS 1.0

Date of compilation: 2019-12-08

### SECTION 1: Identification

#### 1.1 Product identifier

Trade name **Citrus Sap**  
Product number 06-22-1000

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Industrial use

#### 1.3 Details of the supplier of the safety data sheet

23 Pa'amei Aviv St P.O. 1074  
43905 Givat Hen  
Israel  
Telephone: +972 507305819  
e-mail: lior@eybna.com  
Website: <http://www.eybna.com/>

e-mail (competent person) lior@eybna.com (Lior Chatow)

#### 1.4 Emergency telephone number

+1 4158544820

### SECTION 2: Hazard(s) identification

#### 2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

| Section | Hazard class                      | Category | Hazard class and category | Hazard statement |
|---------|-----------------------------------|----------|---------------------------|------------------|
| A.10    | acute toxicity (oral)             | 4        | Acute Tox. 4              | H302             |
| A.2     | skin corrosion/irritation         | 2        | Skin Irrit. 2             | H315             |
| A.3     | serious eye damage/eye irritation | 2        | Eye Irrit. 2              | H319             |
| A.4S    | skin sensitization                | 1        | Skin Sens. 1              | H317             |
| A.10    | aspiration hazard                 | 1        | Asp. Tox. 1               | H304             |
| B.6     | flammable liquid                  | 3        | Flam. Liq. 3              | H226             |

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

#### 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS02, GHS07, GHS08





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### - Hazard statements

|      |   |
|------|---|
| H226 | Flammable liquid and vapor.                   |
| H302 | Harmful if swallowed.                         |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation.                       |
| H317 | May cause an allergic skin reaction.          |
| H319 | Causes serious eye irritation.                |

### - Precautionary statements

|                |  |
|----------------|--|
| P210           | Keep away from heat/sparks/open flames/hot surfaces. No smoking.   |
| P233           | Keep container tightly closed.   |
| P240           | Ground/bond container and receiving equipment.   |
| P241           | Use explosion-proof electrical/ventilating/lighting equipment.   |
| P242           | Use only non-sparking tools.   |
| P243           | Take precautionary measures against static discharge.  |
| P261           | Avoid breathing dust/fume/gas/mist/vapors/spray.   |
| P270           | Do not eat, drink or smoke when using this product.  |
| P272           | Contaminated work clothing must not be allowed out of the workplace.   |
| P280           | Wear protective gloves/eye protection/face protection.   |
| P301+P310      | If swallowed: Immediately call a poison center/doctor.   |
| P301+P312      | If swallowed: Call a poison center/doctor if you feel unwell.  |
| P302+P352      | If on skin: Wash with plenty of water.   |
| P303+P361+P353 | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.                              |
| P305+P351+P338 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P321           | Specific treatment (see on this label).  |
| P330           | Rinse mouth.   |
| P331           | Do NOT induce vomiting.  |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P362           | Take off contaminated clothing and wash it before reuse.   |
| P363           | Wash contaminated clothing before reuse.   |
| P370+P378      | In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.  |
| P403+P235      | Store in a well-ventilated place. Keep cool.   |
| P405           | Store locked up.   |
| P501           | Dispose of contents/container to industrial combustion plant.  |

### 2.3 Other hazards

Hazards not otherwise classified

Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



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### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

Description of the mixture

| Name of substance                | Wt%       | Classification acc. to GHS  |
|----------------------------------|-----------|---|
| Proprietary Sesquiterpene        | 25 - < 50 | Acute Tox. 4 / H302   |
| Proprietary Monoterpene          | 10 - < 25 | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Skin Sens. 1 / H317<br>Asp. Tox. 1 / H304<br>Flam. Liq. 3 / H226   |
| Proprietary Sesquiterpene        | 10 - < 25 | Acute Tox. 4 / H302   |
| Proprietary Monoterpene          | 5 - < 10  | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Asp. Tox. 1 / H304<br>Flam. Liq. 3 / H226  |
| Proprietary Monoterpenic Alcohol | 1 - < 5   | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Skin Sens. 1B / H317<br>STOT SE 3 / H335<br>Flam. Liq. 4 / H227  |
| Proprietary Monoterpene          | 1 - < 5   | Acute Tox. 4 / H302<br>Acute Tox. 4 / H312<br>Acute Tox. 4 / H332<br>Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Skin Sens. 1B / H317<br>STOT SE 3 / H335<br>Asp. Tox. 1 / H304<br>Flam. Liq. 3 / H226 |
| Proprietary Diterpenic Alcohol   | 1 - < 5   | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>STOT SE 3 / H335   |
| Proprietary Monoterpenic Alcohol | 1 - < 5   | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>STOT SE 3 / H335   |
| Proprietary Monoterpene          | 1 - < 5   | Acute Tox. 4 / H302<br>Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Skin Sens. 1 / H317<br>STOT SE 3 / H335<br>Asp. Tox. 1 / H304<br>Flam. Liq. 3 / H226  |
| Proprietary Monoterpenic Alcohol | 1 - < 5   | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>STOT SE 3 / H335   |
| Proprietary Monoterpenic Alcohol | 0 - < 1   | Acute Tox. 4 / H302<br>Skin Sens. 1 / H317<br>Flam. Sol. 1 / H228   |



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| Name of substance                | Wt%     | Classification acc. to GHS                                       |
|----------------------------------|---------|--|
| Proprietary Monoterpenic Alcohol | 0 – < 1 | Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317 |

For full text of abbreviations: see SECTION 16.

### SECTION 4: First-aid measures

#### 4.1 Description of first-aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)



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### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

### 6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.



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### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Managing of associated risks

##### - Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

##### - Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

##### - Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

##### - Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |                         |            |           |                          |            |                           |                 |                                |          |             |
|--|-------------------------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|-------------|
| Country  | Name of substance       | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [ppm] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source      |
| US   | Proprietary Monoterpene | TLV®       | 20        |                          |            |                           |                 |                                |          | ACGIH® 2019 |
| US   | Proprietary Monoterpene | TLV®       | 20        |                          |            |                           |                 |                                |          | ACGIH® 2019 |

#### Notation

Ceiling-C

STEL

TWA

ceiling value is a limit value above which exposure should not occur

short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours  
time-weighted average (unless otherwise specified)

| Relevant DNELs of components of the mixture |                        |                                    |                   |                            |
|---|------------------------|------------------------------------|-------------------|----------------------------|
| Endpoint                                    | Threshold level        | Protection goal, route of exposure | Used in           | Exposure time              |
| DNEL  | 66.7 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 9.5 mg/kg bw/day       | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 2.8 mg/m <sup>3</sup>  | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 16.5 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | acute - systemic effects   |



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| Relevant DNELs of components of the mixture |                         |                                    |                   |                            |
|---|-------------------------|------------------------------------|-------------------|----------------------------|
| Endpoint                                    | Threshold level         | Protection goal, route of exposure | Used in           | Exposure time              |
| DNEL  | 2.5 mg/kg bw/day        | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 5 mg/kg bw/day          | human, dermal                      | worker (industry) | acute - systemic effects   |
| DNEL  | 5.69 mg/m <sup>3</sup>  | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 0.8 mg/kg bw/day        | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 54 µg/cm <sup>2</sup>   | human, dermal                      | worker (industry) | chronic - local effects    |
| DNEL  | 8.8 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 5 mg/kg bw/day          | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 3.8 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 0.542 mg/kg bw/day      | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 9.03 mg/m <sup>3</sup>  | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 158 mg/kg bw/day        | human, dermal                      | worker (industry) | chronic - systemic effects |
| DNEL  | 17.63 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL  | 10 mg/kg bw/day         | human, dermal                      | worker (industry) | chronic - systemic effects |

| Relevant PNECs of components of the mixture |          |                 |                       |                              |                              |
|---|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Other names or synonyms                     | Endpoint | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Proprietary Monoterpene                     | PNEC     | 14 µg/l         | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 1.4 µg/l        | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 1.8 mg/l        | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 3.85 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.385 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.763 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.2 mg/l        | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.02 mg/l       | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 10 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |



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| Relevant PNECs of components of the mixture |          |                 |                       |                              |                              |
|---|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Other names or synonyms                     | Endpoint | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Proprietary Monoterpenic Alcohol            | PNEC     | 2.22 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.222 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.327 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 1.004 µg/l      | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.1 µg/l        | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 3.26 mg/l       | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.337 mg/kg     | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.034 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.067 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 55.7 µg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 55.7 µg/l       | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 10 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 18.6 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 18.6 mg/kg      | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Diterpenic Alcohol              | PNEC     | 6.55 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.606 µg/l      | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.061 µg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 0.2 mg/l        | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 157 µg/kg       | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpene                     | PNEC     | 15.7 µg/kg      | aquatic organisms     | marine sediment              | short-term (single instance) |





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| Relevant PNECs of components of the mixture |          |                 |                       |                              |                              |
|---|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Other names or synonyms                     | Endpoint | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Proprietary Monoterpene                     | PNEC     | 31.7 µg/kg      | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 68 µg/l         | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 6.8 µg/l        | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 2.6 mg/l        | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 1.85 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.185 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.329 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 1.71 µg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.171 µg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 1 mg/l          | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.139 mg/kg     | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.017 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Proprietary Monoterpenic Alcohol            | PNEC     | 0.013 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |

### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.



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### Skin protection

#### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

#### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Color          |                |
| Odor           | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | 154.3 °C at 1,010 hPa                         |
| Flash point                             | 31 °C at 1 atm                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant, (fluid)                         |
| Explosive limits                        | not determined                                |
| Vapor pressure                          | 690 Pa at 20 °C                               |
| Density                                 | not determined                                |
| Vapor density                           | this information is not available             |
| Relative density                        | information on this property is not available |



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|                              |                                    |
|------------------------------|------------------------------------|
| Solubility(ies)              | not determined                     |
| Partition coefficient        |                                    |
| - n-octanol/water (log KOW)  | this information is not available  |
| Auto-ignition temperature    | 245 °C                             |
| Viscosity                    | not determined                     |
| Explosive properties         | none                               |
| Oxidizing properties         | none                               |
| <b>9.2 Other information</b> | there is no additional information |

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

#### 10.2 Chemical stability

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

#### 10.5 Incompatible materials

Oxidizers

#### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.



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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

##### Acute toxicity

Harmful if swallowed.

##### - Acute toxicity estimate (ATE)

Oral 909.1 mg/kg

| Acute toxicity estimate (ATE) of components of the mixture |                   |             |
|--|-------------------|-------------|
| Other names or synonyms                                    | Exposure route    | ATE         |
| Proprietary Sesquiterpene                                  | oral              | 500 mg/kg   |
| Proprietary Sesquiterpene                                  | oral              | 500 mg/kg   |
| Proprietary Monoterpene                                    | oral              | 500 mg/kg   |
| Proprietary Monoterpene                                    | dermal            | 1,100 mg/kg |
| Proprietary Monoterpene                                    | inhalation: vapor | 11 mg/l/4h  |
| Proprietary Monoterpene                                    | oral              | 500 mg/kg   |
| Proprietary Monoterpenic Alcohol                           | oral              | 1,310 mg/kg |

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitization

May cause an allergic skin reaction.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans |                |        |
|---|----------------|--------|
| Name of substance   | Classification | Number |
| Proprietary Monoterpene   | 3              |        |

##### Legend

3 Not classifiable as to carcinogenicity in humans



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### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

| Aquatic toxicity (acute) of components of the mixture |          |            |                       |               |
|---|----------|------------|-----------------------|---------------|
| Other names or synonyms                               | Endpoint | Value      | Species               | Exposure time |
| Proprietary Monoterpene                               | LC50     | 720 µg/l   | fish                  | 96 h          |
| Proprietary Monoterpene                               | EC50     | 688 µg/l   | fish                  | 96 h          |
| Proprietary Monoterpene                               | ErC50    | 0.32 mg/l  | algae                 | 72 h          |
| Proprietary Monoterpene                               | EC50     | 1.47 mg/l  | aquatic invertebrates | 48 h          |
| Proprietary Monoterpene                               | ErC50    | 0.342 mg/l | algae                 | 72 h          |
| Proprietary Monoterpenic Alcohol                      | LC50     | 27.8 mg/l  | fish                  | 96 h          |
| Proprietary Monoterpenic Alcohol                      | EC50     | 59 mg/l    | aquatic invertebrates | 48 h          |
| Proprietary Monoterpenic Alcohol                      | ErC50    | 156.7 mg/l | algae                 | 96 h          |
| Proprietary Diterpenic Alcohol                        | LC50     | >100 mg/l  | fish                  | 96 h          |
| Proprietary Diterpenic Alcohol                        | EC50     | >100 mg/l  | aquatic invertebrates | 48 h          |
| Proprietary Diterpenic Alcohol                        | ErC50    | >1.34 mg/l | algae                 | 72 h          |
| Proprietary Monoterpene                               | LC50     | 0.303 mg/l | fish                  | 96 h          |
| Proprietary Monoterpene                               | EC50     | 0.475 mg/l | aquatic invertebrates | 48 h          |



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| Aquatic toxicity (acute) of components of the mixture |          |            |                       |               |
|---|----------|------------|-----------------------|---------------|
| Other names or synonyms                               | Endpoint | Value      | Species               | Exposure time |
| Proprietary Monoterpenic Alcohol                      | LC50     | >82 mg/l   | fish                  | 96 h          |
| Proprietary Monoterpenic Alcohol                      | EC50     | 10 mg/l    | aquatic invertebrates | 48 h          |
| Proprietary Monoterpenic Alcohol                      | ErC50    | >11 µg/l   | algae                 | 72 h          |
| Proprietary Monoterpenic Alcohol                      | LC50     | 33.25 mg/l | fish                  | 96 h          |
| Proprietary Monoterpenic Alcohol                      | EC50     | 4.23 mg/l  | aquatic invertebrates | 48 h          |
| Proprietary Monoterpenic Alcohol                      | ErC50    | 1.71 mg/l  | algae                 | 72 h          |

| Aquatic toxicity (chronic) of components of the mixture |          |             |                |               |
|---|----------|-------------|----------------|---------------|
| Other names or synonyms                                 | Endpoint | Value       | Species        | Exposure time |
| Proprietary Monoterpene                                 | EC50     | <0.67 mg/l  | fish           | 8 d           |
| Proprietary Monoterpene                                 | LC50     | 0.41 mg/l   | fish           | 8 d           |
| Proprietary Monoterpenic Alcohol                        | EC50     | >100 mg/l   | microorganisms | 30 min        |
| Proprietary Monoterpene                                 | EC50     | 326 mg/l    | microorganisms | 3 h           |
| Proprietary Diterpenic Alcohol                          | EC50     | >1,000 mg/l | microorganisms | 180 min       |
| Proprietary Monoterpenic Alcohol                        | EC50     | >100 mg/l   | microorganisms | 3 h           |

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.



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### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

|  |                                       |
|--|---------------------------------------|
| <b>14.1 UN number</b>  | 1993                                  |
| <b>14.2 UN proper shipping name</b>  | Flammable liquid, n.o.s.              |
| Technical name (hazardous ingredients)   | (R)-p-mentha-1,8-diene, Beta-Myrcene  |
| <b>14.3 Transport hazard class(es)</b>   |                                       |
| Class  | 3 (flammable liquids)                 |
| <b>14.4 Packing group</b>  | III (substance presenting low danger) |
| <b>14.5 Environmental hazards</b>  | hazardous to the aquatic environment  |
| Environmentally hazardous substance (aquatic environment)                      | (R)-p-mentha-1,8-diene                |
| <b>14.6 Special precautions for user</b>                                       |                                       |
| There is no additional information.  |                                       |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> |                                       |
| The cargo is not intended to be carried in bulk.                               |                                       |

### Information for each of the UN Model Regulations



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### Transport of dangerous goods by road or rail (49 CFR US DOT)

|   |   |
|---|---|
| Index number  | 1993  |
| Proper shipping name  | Flammable liquid, n.o.s.  |
| - Particulars in the shipper's declaration  | UN1993, Flammable liquid, n.o.s., (contains: (R)-p-mentha-1,8-diene, Beta-Myrcene), 3, III, environmentally hazardous |
| Class   | 3   |
| Packing group   | III   |
| Danger label(s)   | 3, fish and tree  |
|   |   |
| Environmental hazards   | YES (hazardous to the aquatic environment)  |
| Special provisions (SP)   | B1, B52, IB3, T4, TP1, TP29   |
| ERG No  | 128   |

### International Maritime Dangerous Goods Code (IMDG)

|   |  |
|---|--|
| UN number   | 1993                                       |
| Proper shipping name  | FLAMMABLE LIQUID, N.O.S.                   |
| Class   | 3  |
| Marine pollutant  | YES (hazardous to the aquatic environment) |
| Packing group   | III  |
| Danger label(s)   | 3, fish and tree                           |
|   |  |
| Special provisions (SP)   | 223, 274, 955                              |
| Excepted quantities (EQ)  | E1   |
| Limited quantities (LQ)   | 5 L  |
| EmS   | F-E, <u>S-E</u>                            |
| Stowage category  | A  |

### International Civil Aviation Organization (ICAO-IATA/DGR)

|                       |  |
|-----------------------|--|
| UN number             | 1993                                       |
| Proper shipping name  | Flammable liquid, n.o.s.                   |
| Class                 | 3  |
| Environmental hazards | YES (hazardous to the aquatic environment) |
| Packing group         | III  |
| Danger label(s)       | 3  |







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|                          |      |
|--------------------------|------|
| Special provisions (SP)  | A3   |
| Excepted quantities (EQ) | E1   |
| Limited quantities (LQ)  | 10 L |

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### National regulations (United States)

##### Superfund Amendment and Reauthorization Act (SARA TITLE III )

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

##### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

##### Clean Air Act

none of the ingredients are listed

##### Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

| Name of substance | CAS No   | Remarks | Classifications |
|-------------------|----------|---------|-----------------|
| Alpha-Pinene      | 80-56-8  |         | F3              |
| L-borneol         | 507-70-0 |         | F2              |

##### Legend

F2 Flammable - Second Degree  
F3 Flammable - Third Degree

##### California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

| Proposition 65 List of chemicals |          |         |                      |
|----------------------------------|----------|---------|----------------------|
| Name acc. to inventory           | CAS No   | Remarks | Type of the toxicity |
| beta-Myrcene                     | 123-35-3 |         | cancer               |

##### VOC content

Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):

##### Industry or sector specific available guidance(s)

##### NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.



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| Category            | Rating | Description  |
|---------------------|--------|--|
| Chronic             | /      | none   |
| Health              | 2      | temporary or minor injury may occur  |
| Flammability        | 3      | material that can be ignited under almost all ambient temperature conditions   |
| Physical hazard     | 0      | material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive |
| Personal protection | -      |  |

### NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

| Category       | Degree of hazard | Description  |
|----------------|------------------|--|
| Flammability   | 3                | material that can be ignited under almost all ambient temperature conditions                     |
| Health         | 2                | material that, under emergency conditions, can cause temporary incapacitation or residual injury |
| Instability    | 0                | material that is normally stable, even under fire conditions                                     |
| Special hazard |                  |  |

### National inventories

| Country | Inventory | Status                         |
|---------|-----------|--------------------------------|
| US      | TSCA      | not all ingredients are listed |

#### Legend

TSCA Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information, including date of preparation or last revision

### Abbreviations and acronyms

| Abbr.         | Descriptions of used abbreviations   |
|---------------|--|
| 49 CFR US DOT | 49 CFR U.S. Department of Transportation   |
| ACGIH® 2019   | From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: <a href="http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement">http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement</a> |
| Acute Tox.    | Acute toxicity   |
| Asp. Tox.     | Aspiration hazard  |
| ATE           | Acute Toxicity Estimate  |
| Cal ARB       | California Air Resources Board   |
| CAS           | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)   |



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| Abbr.          | Descriptions of used abbreviations   |
|----------------|--|
| Ceiling-C      | Ceiling value  |
| DGR            | Dangerous Goods Regulations (see IATA/DGR)   |
| DNEL           | Derived No-Effect Level  |
| DOT            | Department of Transportation (USA)   |
| EC50           | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| EmS            | Emergency Schedule   |
| EPA            | Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment                               |
| ErC50          | ≙ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control           |
| ERG No         | Emergency Response Guidebook - Number  |
| Eye Dam.       | Seriously damaging to the eye  |
| Eye Irrit.     | Irritant to the eye  |
| Flam. Liq.     | Flammable liquid   |
| Flam. Sol.     | Flammable solid  |
| GHS            | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations  |
| IATA           | International Air Transport Association  |
| IATA/DGR       | Dangerous Goods Regulations (DGR) for the air transport (IATA)   |
| ICAO           | International Civil Aviation Organization  |
| IMDG           | International Maritime Dangerous Goods Code  |
| LC50           | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                                |
| MARPOL         | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")  |
| NPCA-HMIS® III | National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition  |
| OSHA           | Occupational Safety and Health Administration (United States)  |
| PBT            | Persistent, Bioaccumulative and Toxic  |
| PNEC           | Predicted No-Effect Concentration  |
| ppm            | Parts per million  |
| Skin Corr.     | Corrosive to skin  |
| Skin Irrit.    | Irritant to skin   |
| Skin Sens.     | Skin sensitization   |
| STEL           | Short-term exposure limit  |
| STOT SE        | Specific target organ toxicity - single exposure   |
| TLV®           | Threshold Limit Values   |



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| Abbr. | Descriptions of used abbreviations       |
|-------|--|
| TWA   | Time-weighted average                    |
| VOC   | Volatile Organic Compounds               |
| vPvB  | Very Persistent and very Bioaccumulative |

### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text  |
|------|---|
| H226 | Flammable liquid and vapor.                   |
| H227 | Combustible liquid.                           |
| H228 | Flammable solid.                              |
| H302 | Harmful if swallowed.                         |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin.                 |
| H315 | Causes skin irritation.                       |
| H317 | May cause an allergic skin reaction.          |
| H318 | Causes serious eye damage.                    |
| H319 | Causes serious eye irritation.                |
| H332 | Harmful if inhaled.                           |
| H335 | May cause respiratory irritation.             |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.