## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

### 1.1. Identification of the substance/mixture

**Trade name:** **ORANGE TERPENES**
**Substance name:** ORANGE TERPENES
**CAS Number:** 8028-48-6, 68647-72-3
**CE Number:** 232-433-8

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

Raw material for the manufacture of fragrances and/or flavourings.

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

**Company:** **Ernesto Ventós SA**
**Address:** Carretera Real, 120 B
08960 Sant Just Desvern – Barcelona – SPAIN
**Telephone:** (00 34) 934 706 210
**Fax:** (00 34) 934 733 010
**E-mail:** info@ventos.com

### 1.4. Emergency telephone number

NCEC (+44) 1865 407333 (24h)
NCEC (+34) 91 114 2520 (24h) (ES)
NCEC (+1) 202 464 2554 (24h) (USA, Canada)

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Flammable Liquids - Category 3 - H226
Skin Irritant - Category 2 - H315
Skin sensitizer - Category 1 - H317
Aspiration hazard - Category 1 - H304
Hazardous to the aquatic environment, long-term (chronic) - Category 2 - H411

### 2.2. Label Elements

**Hazard pictograms:**



**Signal Word:**
Danger

**Hazard statements:**
H226 – Flammable liquid and vapour.
H304 – May be fatal if swallowed and enters airways.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H411 – Toxic to aquatic life with long lasting effects.

**Precautionary statements:**
P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P331 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
P302+P352+P333+P313 – IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

### 2.3. Other hazards

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Chemical name: ORANGE TERPENES
CAS number: 8028-48-6, 68647-72-3
EC number: 232-433-8

**Hazardous constituents:**

| Chemical Name | % (w/w) | CAS No.<br>EC No. | Classification according to GHS |
|---|---|---|---|
| LIMONENE | ≥50 | 138-86-3<br>205-341-0 | Flammable Liquids - Category 3 - H226<br>Skin Irritant - Category 2 - H315<br>Skin sensitizer - Category 1B - H317<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 1 - H400<br>Hazardous to the aquatic environment, long-term (chronic) - Category 3 - H412 |
| MYRCENE | ≥1; <10 | 123-35-3<br>204-622-5 | Flammable Liquids - Category 3 - H226<br>Skin Irritant - Category 2 - H315<br>Eye Irritant - Category 2A - H319<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 1 - H400<br>Hazardous to the aquatic environment, long-term (chronic) - Category 2 - H411 |
| ALPHA-PINENE | ≥1; <10 | 80-56-8<br>201-291-9 | Flammable Liquids - Category 3 - H226<br>Acute Toxicity - Category 4 (oral) - H302<br>Skin Irritant - Category 2 - H315<br>Skin sensitizer - Category 1B - H317<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 1 - H400<br>Hazardous to the aquatic environment, long-term (chronic) - Category 1 - H410 |
| TERPINOLENE | ≥0.1; <1 | 586-62-9<br>209-578-0 | Flammable Liquids - Category 4 - H227<br>Acute Toxicity - Category 5 (oral) - H303<br>Skin Irritant - Category 3 - H316<br>Skin sensitizer - Category 1B - H317<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 1 - H400<br>Hazardous to the aquatic environment, long-term (chronic) - Category 1 - H410 |
| LINALOOL | ≥0.1; <1 | 78-70-6<br>201-134-4 | Flammable Liquids - Category 4 - H227<br>Acute Toxicity - Category 5 (oral) - H303<br>Skin Irritant - Category 2 - H315<br>Eye Irritant - Category 2A - H319<br>Skin sensitizer - Category 1B - H317<br>Hazardous to the aquatic environment, short-term (acute) - Category 3 - H402 |
| GAMMA-TERPINENE | ≥0.1; <1 | 99-85-4<br>202-794-6 | Flammable Liquids - Category 3 - H226<br>Acute Toxicity - Category 5 (oral) - H303<br>Toxic to reproduction - Category 2 - H361<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 2 - H401<br>Hazardous to the aquatic environment, long-term (chronic) - Category 2 - H411 |
| DELTA-3-CARENE | ≥0.1; <1 | 13466-78-9<br>236-719-3 | Flammable Liquids - Category 3 - H226<br>Acute Toxicity - Category 4 (inhalation) - H332<br>Acute Toxicity - Category 5 (oral) - H303<br>Skin Irritant - Category 2 - H315<br>Skin sensitizer - Category 1 - H317<br>Aspiration hazard - Category 1 - H304<br>Hazardous to the aquatic environment, short-term (acute) - Category 2 - H401<br>Hazardous to the aquatic environment, long-term (chronic) - Category 2 - H411 |
| CARVONE | ≥0.1; <1 | 99-49-0<br>202-759-5 | Flammable Liquids - Category 4 - H227<br>Acute Toxicity - Category 5 (oral) - H303<br>Acute Toxicity - Category 5 (dermal) - H313<br>Skin sensitizer - Category 1B - H317<br>Hazardous to the aquatic environment, short-term (acute) - Category 2 - H401 |

See the full text of the hazard statements in section 16.

### 3.2. Mixtures
Not applicable.

## 4. FIRST-AID MEASURES

### 4.1. Description of necessary first aid measures
Ingestion: Rinse mouth with water.
Obtain medical advice.
Keep at rest. Do not induce vomiting.
Eye contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical advice.

| | |
|---|---|
| Inhalation: | Remove person to fresh air and keep at rest.<br>Seek immediate medical advice. |
| Skin contact: | Take off immediately all contaminated clothing.<br>Thoroughly wash affected skin with soap and water.<br>Seek medical attention if symptoms persist. |

### 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
No information available.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media
Water spray, carbon dioxide, dry chemical powder or appropriate foam.
For safety reasons do not use full water jet.

### 5.2. Special hazards arising from the substance or mixture
Known or Anticipated Hazardous Products of Combustion: Emits toxic fumes under fire conditions.

### 5.3. Advice for firefighters
High temperatures can lead to high pressures inside closed containers.
Avoid inhalation of vapors that are created. Use appropriate respiratory protection.
Do not allow spillage of fire to be poured into drains or watercourses.
Wear self-contained breathing apparatus and protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures
Evacuate surronding areas. Ensure adequate ventilation. Keep unnecessary and unprotected personnel from entering.
Do not breathe vapor/spray. Avoid contact with skin and eyes. Information regarding personal protective measures: see section 8.

### 6.2. Environmental precautions
To avoid possible contamination of the environment, do not discharge into any drains, surface waters or groundwaters.

### 6.3. Methods and materials for containment and cleaning up
Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash).
Place in covered containers using non-sparking tools and transport outdoors.
Avoid open flames or sources of ignition (e.g. pilot lights on gas hot water heater).
Ventilate area and wash spill site after material pickup is complete.

### 6.4. Reference to other sections
Information regarding exposure controls, personal protection and disposal considerations can be found in sections 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling
Do not store or handle this material near food or drinking water. Do not smoke.
Avoid contact with the eyes, skin and clothing. Wear protective clothing and use glasses.
Observe the rules of safety and hygiene at work.
Keep in the original container or an alternative made from a compatible material.

### 7.2. Conditions for safe storage, including any incompatibilities
Store in tightly closed and preferably full containers in a cool, dry and ventilated area, protected from light.
Keep away from sources of ignition (e.g. hot surfaces, sparks, flame and static discharges).
Keep away from incompatible materials (see section 10).

### 7.3. Specific end use(s)
No information available.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### 8.1. Control parameters

Components with occupational exposure limits:

| Chemical Name | CAS No. | Norm. | 8 hr. | | | 15 min. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | ppm | mg/m³ | | ppm | mg/m³ |
| ALPHA-PINENE | 80-56-8 | ES (España) | VLA-ED | 20 | 113 | VLA-EC | | |
| DELTA-3-CARENE | 13466-78-9 | ES (España) | VLA-ED | 20 | 113 | VLA-EC | | |

### 8.2. Exposure controls
Measures should be taken to prevent materials from being splashed into the body.
Provide adequate ventilation, according to the conditions of use. Use a mechanical exhaust if required.

### 8.3. Individual protection measures, such as personal protective equipment
Eye/Face protection: Chemical safety goggles are recommended. Wash contaminated goggles before reuse.
Hand Protection: Chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
Respiratory Protection: In case of insufficient ventilation, use suitable respiratory equipment.
Environmental exposure controls: Emissions from ventilation or process equipment should be checked to ensure they comply with environmental protection legislation.
In some cases, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance: | Liquid |
| Colour: | Conforms to standard |
| Odour: | Conforms to standard |
| Odour theshold: | Not determined |
| pH: | Not determined |
| Melting point/freezing point: | -97 APPROX. |
| Boling point/boiling range (°C): | 175 - 177 (1 atm) |
| Flash point: | 47 °C |
| Evaporation rate: | Not determined |
| Flammability: | Not determined |
| Lower flammability/Explosive limit: | Not determined |
| Upper flammability/Explosive limit: | Not determined |
| Vapour pressure: | Not determined |
| Vapour Density: | Not determined |
| Density: | 0,835—0,846 g/mL (20°C) |
| Relative density: | 0,835—0,846 (20°C) |
| Water solubility: | INSOLUBLE IN WATER |
| Solubility in other solvents: | SOLUBLE IN ETHANOL |
| Partition coefficient n-octanol/water: | Not determined |
| Auto-ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Viscosity, dynamic: | Not determined |
| Viscosity, kinematic: | Not determined |
| Explosive properties: | Not determined |
| Oxidising properties: | NONE EXPECTED |

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

### 10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

### 10.3. Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

### 10.4. Conditions to Avoid
Conditions to Avoid: Excessive heat, flame or other ignition sources.

### 10.5. Incompatible materials
Avoid contact with strong acids and bases and oxidizing agents.

### 10.6. Hazardous decomposition products
During combustion may form carbon monoxide and unidentified organic compounds.

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Acute toxicity** | Based on the data available, the criteria for classification are not met. |
| **Skin corrosion/irritation** | Causes skin irritation. |
| **Serious eye damage/irritation** | Based on the data available, the criteria for classification are not met. |
| **Respiratory or skin sensitisation** | May cause an allergic skin reaction. |
| **Germ cell mutagenicity** | Based on the data available, the criteria for classification are not met. |
| **Carcinogenicity** | Based on the data available, the criteria for classification are not met. |
| **Reproductive toxicity** | Based on the data available, the criteria for classification are not met. |
| **STOT-single exposure** | Based on the data available, the criteria for classification are not met. |
| **STOT-repeated exposure** | Based on the data available, the criteria for classification are not met. |
| **Aspiration hazard** | May be fatal if swallowed and enters airways. |

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity
**Assessment:**
Toxic to aquatic life with long lasting effects.
**Experimental/calculated data:**
No information available.

### 12.2. Persistence and degradability
The product is readily biodegradable

### 12.3. Bioaccumulative potential
No information available.

### 12.4. Soil mobility
No information available.

### 12.5. Other adverse effects
See also sections 6, 7, 13 and 15
Do not allow to get into waste water or waterways.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods
Dispose of in accordance with national and local environmental regulations.

## 14. TRANSPORT INFORMATION

| | ADR/RID/ADN | IMDG | IATA-ICAO |
|---|---|---|---|
| **14.1. UN Number** | UN2319 | UN2319 | UN2319 |
| **14.2. UN Proper Shipping Name** | TERPENE HYDROCARBONS, N.O.S. | TERPENE HYDROCARBONS, N.O.S. (LIMONENE) | TERPENE HYDROCARBONS, N.O.S. |
| **14.3. Transport Hazard Class(es)** | 3 | 3 | 3 |
| **14.4. Packing Group** | III | III | III |
| **14.5. Environmental hazards** | Yes | Yes | Yes |
| **Additional information** | | | |

### 14.6 Special precautions for user
None known

### 14.7. Maritime transport in bulk according to IMO instruments
No information available

## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No information available

## 16. OTHER INFORMATION

**Full text of the R-phrases, hazard statements and precautionary statements mentioned in section 3:**
H226 – Flammable liquid and vapour.
H227 – Combustible liquid.
H302 – Harmful if swallowed.
H303 – May be harmful if swallowed.
H304 – May be fatal if swallowed and enters airways.
H313 – May ne harmful in contact with skin.
H315 – Causes skin irritation.
H316 – Causes mild skin irritation.
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation.
H332 – Harmful if inhaled.
H361 – Suspected of damaging fertility or the unborn child.
H400 – Very toxic to aquatic life.
H401 – Toxic to aquatic life.
H402 – Harmful to aquatic life.
H410 – Very toxic to aquatic life with long lasting effects.
H411 – Toxic to aquatic life with long lasting effects.
H412 – Harmful to aquatic life with long lasting effects.

The information included in this safety data sheet is based on the available data at the moment this document is issued. It is meant to be a description of safety requirements for our product and does not stand for a guarantee of its properties. The user is responsible for taking all necessary steps leading to compliance with local rules and legislation.