

**TERPENES D'ORANGE**Revision date: 22-12-2021  
Version: 3.2/CLP/ENPrint Date: 02-05-2024  
Page: 1 / 6**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING****1.1. Identification of the substance/mixture**

**Trade name:** TERPENES D'ORANGE  
**Substance name:** LIMONENE  
**CAS Number:** 5989-27-5  
**CE Number:** 227-813-5  
**REACH Registration number:** 01-2119529223-47

**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:** Prodasynt  
**Address:** 4 Av. Joseph Honoré Isnard  
06130 GRASSE – FRANCE  
**Telephone:** (00 33) 4 93 09 00 11  
**Fax:** (00 33) 4 22 13 07 38  
**E-mail:** info@prodasynt.com

**1.4. Emergency telephone number**

(00 33) 4 93 09 00 11 (8:30 - 17:30)  
National emergency information services:  
**FR:** (+33) 1 45 42 59 59 (24h/7)

**SECTION 2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

Flammable Liquids - Category 3 - H226  
Skin Irritant - Category 2 - H315  
Skin sensitizer - Category 1B - H317  
Aspiration hazard - Category 1 - H304  
Hazardous to the aquatic environment, short-term (acute) - Category 1 - H400  
Hazardous to the aquatic environment, long-term (chronic) - Category 3 - H412

**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.  
H410 – Very 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.

**Supplemental Hazard Information:**

Contains ALPHA-PINENE, LIMONENE, LINALOOL. May produce an allergic reaction.

**2.3. Other hazards**

Product not containing any component that meets the criteria for PBT or vPvB according to Regulation (EC) 1907/2006, Annex XIII.  
Product not containing any component identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

**PRODASYNTH SAS**

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Chemical name: LIMONENE  
CAS number: 5989-27-5  
EC number: 227-813-5

#### Hazardous constituents:

Chemical Name	% (w/w)	CAS No. EC No. Index No.	Classification according to Regulation 1272/2008	Specific Concentration Limit, M-factor, ATE, SVHC
LIMONENE	≥50	138-86-3 205-341-0 601-029-00-7(ATP 24)	Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412	
MYRCENE	≥1; <10	123-35-3 204-622-5	Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	
ALPHA-PINENE	≥1; <10	80-56-8 201-291-9	Flam. Liq. 3 - H226 Acute Tox. 4 (oral) - H302 Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	ATE (oral): 500 mg/kg
LINALOOL	≥0.1; <1	78-70-6 201-134-4	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317	ATE (oral): 2790 mg/kg

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

### 3.2. Mixtures

Not applicable.

## SECTION 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.  
Seek immediate medical advice.

Skin contact: Take off immediately all contaminated clothing.  
Thoroughly wash affected skin with soap and water.  
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.

## SECTION 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.

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**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.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate surrounding 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.

**SECTION 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.

**SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**8.1. Control parameters**

Components with occupational exposure limits:

Chemical Name	CAS No.	Norm.	8 hr.			15 min.		
			VLA-ED	ppm	mg/m <sup>3</sup>	VLA-EC	ppm	mg/m <sup>3</sup>
ALPHA-PINENE	80-56-8	ES (España)		20	113			

**8.2. Exposure controls**

Appropriate engineering 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.

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.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Physical state:	Liquid
Colour:	Conforms to standard
Odour:	Conforms to standard
Melting point/freezing point:	-97 APPROX.
Boiling point or initial boiling point and range (°C):	175 - 177 (1 atm)
Flammability:	Not determined
Lower and upper explosion limit:	Not determined
Flash point:	47 °C
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
pH:	Not determined
Kinematic viscosity:	Not determined
Solubility:	INSOLUBLE IN WATER/SOLUBLE IN ETHANOL
Partition coefficient n-octanol/water (log value):	Not determined
Vapour pressure:	Not determined
Density and/or relative density:	0,835—0,846 g/mL (20°C) / 0,835—0,846 (20°C)
Relative vapour density:	Not determined
Particle characteristics:	Not determined

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes:

No information available.

#### 9.2.2. Other safety characteristics:

No information available

## SECTION 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.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties:**

Product not containing any component identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

**11.2.2. Other information:**

No information available

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**Assessment:**

Very toxic to aquatic life with long lasting effects.

**Experimental/calculated data:**

No information available.

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Soil mobility**

No information available.

**12.5. Results of PBT and vPvB assessment**

Product not containing any component that meets the criteria for PBT or vPvB according to Regulation (EC) 1907/2006, Annex XIII.

**12.6. Endocrine disrupting properties**

Product not containing any component identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

**12.7. Other adverse effects**

See also sections 6, 7, 13 and 15

Do not allow to get into waste water or waterways.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Dispose of in accordance with national and local environmental regulations.

**SECTION 14: TRANSPORT INFORMATION**

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

**14.6 Special precautions for user**

None known

**14.7. Maritime transport in bulk according to IMO instruments**

No information available

**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

No information available

**15.2. Chemical safety assessment**

No information available

**SECTION 16: OTHER INFORMATION**

**Full text of the R-phrases, hazard statements and precautionary statements mentioned in section 3:**

H226 – Flammable liquid and vapour.

H302 – Harmful if swallowed.

H304 – May be fatal if swallowed and enters airways.

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H315 – Causes skin irritation.  
H317 – May cause an allergic skin reaction.  
H319 – Causes serious eye irritation.  
H400 – Very toxic 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.

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