

	<b>SISTEMA DE GESTÃO CITROFLAVOR</b>	<b>Code</b>	SD-0001
	<b>SAFETY DATA SHEET - SDS</b>	<b>Revision</b>	3 (11/02/2025)
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## 1 IDENTIFICATION

### 1.1 Product identification

Product's name : COLD PRESSED ORANGE OIL  
product code : CPOO

### 1.3 Recommended uses of the chemical and restrictions on use

Recommended uses : Natural, food-grade product, used as aroma, perfumes, fragrances, medicines and in the chemical industry.  
This product is not intended for direct sale to the consumer.

### 1.4 Company or supplier details

Company Name : Citroflavor Indústria e Comércio de Óleos Essenciais Ltda  
Address : Rua Taubaté, 2059 – Jardim Primavera – Catanduva, SP.  
CEP: 15.810-175  
Contact telephone : +55 17 35314242

### 1.5 Emergency telephone number

Telephone for emergencies : +55 17 35314242 | +55 17 997176807 – Márcio Almeida Junior

## 2 HAZARDS IDENTIFICATION

### GHS classification according to ABNT NBR 14725

H226 Flammable liquids : Category 3  
H304 Aspiration hazard : Category 1  
H315 Skin irritation : Category 2  
H317 Skin sensitisation. : Category 1  
H361 Reproductive toxicity : Category 2  
H400 Short term (acute) aquatic hazard : Category 1  
H411 Long term (chronic) aquatic hazard : Category 2

### GHS labeling elements according to ABNT NBR 14725

Risk pictograms :



**Warning word** : **Danger**

Hazard phrases :  
 H226 Flammable liquid and vapor.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritatio.  
 H317 May cause an allergic skin reaction.  
 H361 Suspected of damaging fertility or the fetus.  
 H400 Very toxic to aquatic life.

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Precautionary phrases	H411 Very toxic to aquatic life with long lasting effects.
	<p><b>Prevention:</b>            P210 Keep away from heat/sparks/open flames/hot surfaces. Do not smoke.            P273 Avoid release to the environment.            P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>: <b>Resposta de emergência:</b>            P301 + P310 IF SWALLOWED: Immediately contact a POISON CENTER/doctor.            P331 DOES NOT cause vomiting.            P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.            P391 Collect spilled material.</p>

## 2.1 Classification of the substance or mixture

The product has no other hazards.

## 3 COMPOSITION AND INFORMATION ABOUT INGREDIENTS

### 3.1 Substances

Chemical name	Nº CAS	Classification	Concentration (% w/w)
D-Limonene	5989-27-5	Flammable liquids, Category 3 Acute toxicity (Oral), Category 5 Skin irritation, Category 2 Skin sensitization., Subcategory 1B Aspiration hazard., Category 1 Dangerous to the aquatic environment – Acute, Category 1 Dangerous to the aquatic environment – Chronic, Category 3	>= 94 < 99
gamma-Terpinene	99-85-4	Flammable liquids, Category 3 Acute toxicity (Oral), Category 5 Reproductive toxicity, Category 2 Aspiration hazard., Category 1 Dangerous to the aquatic environment – Acute, Category 2 Dangerous to the aquatic environment – Chronic, Category 2	>= 0 < 1
Pin-2(3)-ene	80-56-8	Flammable liquids, Category 3 Acute toxicity (Oral), Category 4 Skin irritation, Category 2 Skin sensitization., Category 1 Aspiration hazard., Category 1 Dangerous to the aquatic environment – Acute, Category 1	>= 0 < 1

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Myrcene	123-35-3	Dangerous to the aquatic environment – Chronic, Category 1	
		Flammable liquids, Category 3	
		Skin irritation, Category 2	Eye irritation, Category 2A
		Skin sensitization., Category 1	
		Aspiration hazard., Category 1	>= 1 -< 2.5
Pin-2(10)-ene	127-91-3	Dangerous to the aquatic environment – Acute, Category 1	
		Dangerous to the aquatic environment – Chronic, Category 2	
		Flammable liquids, Category 3	Acute toxicity (Oral),
		Skin irritation, Category 2	Category 5 Skin sensitization., Category 1
		Aspiration hazard., Category 1	>= 0 -< 1
Linalool	78-70-6	Dangerous to the aquatic environment – Acute, Category 1	
		Dangerous to the aquatic environment – Chronic, Category 1	
		Flammable liquids, Category 4	Acute toxicity (Oral),
		Category 5 Skin irritation, Category 2	Eye irritation, Category 2A
		Skin sensitization., Subcategory 1B	>= 0 -< 1

#### 4 FIRST AID ACTIONS

General recommendation	<ul style="list-style-type: none"> <li>Leave the dangerous area.</li> <li>Show this SDS to the doctor on duty.</li> <li>Symptoms of poisoning may appear several hours later.</li> <li>Do not leave the victim unattended.</li> </ul>
<b>4.1 Description of possible first aid measures</b>	
If inhaled	<ul style="list-style-type: none"> <li>If the victim is unconscious, place him in the resting position and seek medical attention.</li> <li>If symptoms persist, consult a doctor. Take this SDS.</li> </ul>
In case of skin contact	<ul style="list-style-type: none"> <li>If skin discomfort persists, call your doctor. If contact is on the skin, wash well with water.</li> <li>See the contact on the clothes, remove them.</li> </ul>
In case of contact with the eye	<ul style="list-style-type: none"> <li>Flush eyes with water as a precaution. Remove contact lenses.</li> <li>Protects the unaffected eye.</li> <li>Keep your eyes wide open while rinsing.</li> <li>If eye safety continues, consult a specialist. Take this SDS</li> </ul>
If ingested	<ul style="list-style-type: none"> <li>Does not induce vomiting. Rinse the victim's mouth with plenty of water. Never give anything orally to an unconscious person.</li> <li>Immediately contact a POISON CENTER or doctor. Take this SDS</li> </ul>
Most important symptoms and effects, acute and late	<ul style="list-style-type: none"> <li>Causes moderate aging of the skin with moisture and dryness. It can be fatal if aspirated if it enters the airways.</li> </ul>

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Notes to doctor	Avoid contact with the product when helping the victim. If necessary, symptomatic treatment should include, above all, supportive measures such as correction of water-electrolyte and metabolic disorders, in addition to respiratory assistance. In case of contact with the skin, do not rub or hit the area. Read this SDS.
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## 5. FIRE FIGHTING MEASURES

<b>5.1 Extinguishing media</b>	Alcohol resistant foam : Carbon dioxide (CO2) Dry chemical substance
<b>5.2 Specific hazards when fighting fires</b>	Do not use water to fight the fire and do not allow it to run into drainage or water courses. Collect contaminated fire-fighting water separately. It must not be sent to drainage pipes. : Fire waste and contaminated firefighting water must be disposed of in accordance with current local regulations. For safety reasons, in case of fire, drums must be stored separately in closed compartments. Use a water spray to cool completely closed containers
<b>5.3 Special protective measures for firefighting personnel</b>	Personal respiratory protection equipment (SCBA) with positive pressure and complete protection.

## 6. CONTROL MEASURES FOR SPILLS OR LEAKS

<b>6.1.1 For non-emergency services personnel</b>	Prevent sparks or flames. Do not smoke. Do not touch damaged containers or any spilled material without wearing appropriate clothing. Avoid exposure to the product. Stay away from low areas, with the wind at your back. Use personal protective equipment as described in section 8.
<b>6.1.2 For personal emergency service</b>	Use full PPE with safety glasses or face shield, butyl rubber, neoprene or PVC safety gloves, appropriate clothing (long pants and cloth shirt) and indoor shoes. In the event of a leak, where exposure is high, it is recommended to use a respiratory protection mask with a filter against organic vapors. Isolation of leakage from ignition sources. Evacuate an area within a radius of at least 50 meters. Keep unauthorized people away from the area. Stop the leak if it can be done without risk.
<b>6.2 Environmental precautions</b>	Prevent the product from being spilled into waterways and sewage systems.
<b>6.3 Methods and materials for containment and cleaning</b>	If safe to do so, avoid further dispersion or spillage.

## 7 HANDLING AND STORAGE

<b>7.1 Safety precautions</b>	Handle in a ventilated area or with a general local ventilation/exhaust system. Avoid formation of vapors or mists. Avoid exposure to the
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	<p>product. Avoid contact with incompatible materials. Use personal protective equipment as described in section 8.</p>
Hygiene measures:	<p>: Wash your hands and face thoroughly after eating, drinking, smoking, or going to the bathroom. Contaminated clothing must be changed and washed before reuse. Remove contaminated clothing and protective equipment before entering eating areas.</p>
<b>7.2 Safe storage conditions, including any incompatibilities</b>	
Fire and explosion prevention:	<p>: Keep away from heat, sparks, open flames and hot surfaces. Do not smoke. Keep the container tightly closed. Ground the vessel contents and product receiver during transfers. Only use non-sparking tools. Avoid the accumulation of electrostatic charges. Use explosion-proof electrical, ventilation and lighting equipment.</p>
Safety recommendations	<p>: Avoid aerosol formation. Do not breathe vapors/dust. Avoid exposure and obtain specific instructions before use. Avoid contact with skin and eyes. For personal protection, see section 8. Smoking, eating and drinking must be prohibited in the application area. Adopt precautionary measures to avoid electrostatic discharges. Provide sufficient air exchange and/or exhaust system in work rooms. Open the container carefully as the contents may be under pressure. Dispose of washing water in accordance with local and national regulations. People susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory diseases should not work in processes using this preparation.</p>
Hygiene measures	<p>: Do not eat or drink during use. Do not smoke during this. Wash your hands before breaks and at the end of the work day.</p>
Conditions for safe storage	<p>: Store the container tightly closed in a dry, well-ventilated place. Open containers must be carefully resealed and kept upright to prevent leaks. Electrical installations and work material must comply with technological safety standards.</p>

## 8 EXPOSURE CONTROL AND PERSONAL PROTECTION

<b>8.1 Control parameters</b>	: There is no information.
<b>8.2 Engineering control measures</b>	: Provide mechanical ventilation and a direct exhaust system to the outside environment. These measures help reduce exposure to the product. And other measures as per Item 13 of this SDS.
<b>8.3 Personal protection measures</b>	
Eye/face protection:	: Safety glasses or face shield.

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Skin and body protection:	: Butyl rubber, neoprene or PVC safety gloves, suitable protective clothing (long pants and cloth shirts) and closed shoes.
Breath protection:	: In the event of a leak, where exposure is high, it is recommended to use a respiratory protection mask with a filter against organic vapors.
Thermal hazards:	: Does not present thermal hazards.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Basic physical and chemical properties

Appearance (physical state, shape and color):	: clear liquid; Yellow to light brown;
Odor	: Pleasant typically citrus odor.
pH:	: Not applicable
Melting point/freezing point:	: -74°C to -96.9°C
Initial boiling point and boiling temperature range:	: 175.5°C to 178°C
Flash point:	: 45°C to 49°C (closed vessel)
Evaporation rate:	: Not available.
Flammability	: Not applicable.
Lower/upper limit of flammability or explosiveness:	: Upper: 6.1% at 262°C Lower: 0.7% at 150°C
Steam pressure:	: 1.4 mmHg at 20°C
Vapor density:	: 0.012 g/L at 20°C (air = 1)
Relative density:	: 0.846 to 0.856 from 20°C to 25°C
Solubility(ies):	: Water: 13.8 mg/L at 25°C
Partition coefficient – n-octanol/water:	: Log kow: 2.78 - 4.88
Auto-ignition temperature:	: 237°C
Decomposition temperature:	: Not available.
Viscosity:	: Dynamics: 0.99 mPa.s at 20°C Kinematics: 1.17 mm²/s at 20°C
<b>9.2 Relevant data regarding physical danger classes (supplementary)</b>	: Not available.
<b>9.3 Other (complementary) security features</b>	: Not applicable.

## 10 STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	: Does not decompose if stored and used as directed.
<b>10.2 Chemical stability</b>	: Does not decompose if stored and used as directed.
<b>10.3 Possibility of dangerous reactions</b>	: Does not decompose if stored and used as directed.
<b>10.4 Conditions to avoid</b>	: The vapors of the substance can form an explosive mixture in contact with air.
<b>10.5 Incompatible materials</b>	: High temperatures. Ignition sources and contact with incompatible materials.

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**10.6 Dangerous products of uncertainty** : Strong oxidizing agents and mineral acids.

## 11 TOXICOLOGICAL INFORMATION

a) acute toxicity;	: Product not classified as acutely toxic orally or dermally. The product is not expected to present acute toxicity through inhalation.
b) skin corrosion/irritation;	: LD50 (oral): > 5000 mg/kg
c) serious eye damage/eye irritation;	: LD50 (dermal): > 5000 mg/kg
d) respiratory or skin sensitization;	: It causes aging of the skin with dryness and aging.
e) mutagenicity in germ cells;	: The product is not expected to cause eye improvement.
f) carcinogenicity;	: The product is not expected to cause eye improvement.
g) toxicity to reproduction;	: The product is not expected to present mutagenicity in germ cells.
h) toxicity to specific target organs – single exposure;	: The product is not expected to be carcinogenic.
i) toxicity to specific target organs – repeated exposure; and	: The product is not expected to present reproductive toxicity.
j) aspiration hazard.	: The product is not expected to present specific target organ toxicity from a single exposure.

## 12 ECOLOGICAL INFORMATION

<b>12.1 Ecotoxicity</b>	: Toxic for aquariums, with long-lasting effects.
<b>12.2 Persistence and degradability</b>	: EC50 (Daphnia magna, 48h): 1.1 mg/L
<b>12.3 Bioaccumulative potential</b>	: LC50 (Danio rerio, 96 h): 5.65 mg/L
<b>12.4 Mobility on the ground</b>	: The product is expected to present quick handling and low persistence.
<b>12.5 Other adverse effects</b>	: Manipulation rate: 83.4% in 28 days.

## 13 CONSIDERATIONS ABOUT FINAL DESTINATION

### 13.1 Recommended methods for final destination

Product:	: It must be disposed of as hazardous disposal in accordance with local legislation. Treatment and disposal must be evaluated specifically for each product. Federal, state and municipal legislation must be consulted.
Product remains:	: Keep product residues in their original packaging and properly closed. Disposal must be carried out as intended for the product.
Packaging used:	: Do not reuse empty packaging. These contain residues of the product and must be kept closed and sent for appropriate disposal as provided for the product.

## 14 TRANSPORTATION INFORMATION

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International regulations
IATA Dangerous Goods Regulation (DGR)
UN/ID No. : UN 2319
Protected name for boarding (D-Limonene) : TERPENIC HYDROCARBONS, N.O.S
Risk class : 3
Packing group : III
Labels : Flammable Liquid
Boarding Instruction (Cargo Aircraft) : 366
Boarding Instruction (Passenger Aircraft) : 355
IMDR-Code
ONU number : UN2319
Proper shipping name : TERPENIC HYDROCARBONS, N.O.S (D-Limonene)
Risk class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : Yes
Comments : Fish + tree tag
Bulk transport in accordance with Annex II of Marpol 73/78 and the IBC Code
Not applicable to the product as supplied
ANTT National Regulation
ONU number : UN2319
Protected name for boarding (D-Limonene) : TERPENIC HYDROCARBONS, N.E.
Risk class : 3
Packing group : III
Labels : 3
Risk number : 30
<b>Special precautions for users</b>
The transport classifications provided here are for informational purposes only, and are based exclusively on the properties of the unpacked material, as described in this SDS - Safety Data Sheet. Transportation classifications may vary depending on mode of transportation, package size, and variations in regional or national regulations.

## 15 REGULATORY INFORMATION

Specific regulations for the chemical:

Federal Decree No. 2,657, of July 3, 1998;  
ABNT-NBR 14725:2023 standard;  
Ordinance No. 229, of May 24, 2011 – Amends Regulatory Standard No. 26.

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## 16 OTHER INFORMATION

### Important information, but not specifically described in the previous sections.

This SDS was prepared based on current knowledge on the appropriate handling of the product and under normal conditions of use, in accordance with the application specified on the packaging. Any other form of use of the product that involves its combination with other materials, in addition to forms of use other than those indicated, is the responsibility of the user. Please note that handling any chemical substance requires prior knowledge of its dangers by the user. In the workplace, it is up to the company using the product to train its employees regarding possible risks arising from exposure to the chemical product.

### Subtitles and abbreviations:

**CAS – Chemical Abstracts Service**

**EC50 – Effective Concentration 50%**

**LC50 – Lethal Concentration 50%**

**LD50 – Lethal Dose 50%**

**NA – Not applicable**

**PVC - Polyvinyl Chloride**

**SCBA - Self-Contained Breathing Apparatus**

### Bibliographic references:

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2015.

ECB – EUROPEAN CHEMICALS BUREAU. Diretiva 67/548/EEC (substâncias); Diretiva 1999/45/EC (preparações). Available at: <<http://ecb.jrc.it/>>. Access in: December, 2015.

EPA USA. 2011. EPI Suite™ for Microsoft® Windows, v 4.10. United States: Environmental Protection Agency, Washington. 2011. Available at: <<http://www.epa.gov/oppt/exposure/pubs/episuite.htm>>. Access in: December, 2015.

HSDB – HAZARDOUS SUBSTANCES DATA BANK. Available at: <<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>>. Access in: December, 2015.

IARC – INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Available at: <<http://monographs.iarc.fr/ENG/Classification/index.php>>. Access in: December, 2015.

IPCS – INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY – INCHEM. Available at: <<http://www.inchem.org/>>. Access in: December, 2015.

IUCLID – INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE. [S.I.]: European chemical Bureau. Available at: <<http://ecb.jrc.ec.europa.eu>>. Access in: December, 2015.

NIOSH – NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. Available at: <<http://www.cdc.gov/niosh/>>. Access in: December, 2015.

NITE-GHS JAPAN – NATIONAL INSTITUTE OF TECHNOLOGY AND EVALUATION. Available at: <[http://www.safe.nite.go.jp/english/ghs\\_index.html](http://www.safe.nite.go.jp/english/ghs_index.html)>. Access in: December, 2015.

REACH – REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS. Amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals Available at: <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:164:0007:0031:EN:PDF>>. Access in: December, 2015.

SIRETOX/INTERTOX – SISTEMA DE INFORMAÇÕES SOBRE RISCOS DE EXPOSIÇÃO QUÍMICA. Available at: <<http://www.intertox.com.br>>. Access in: December, 2015.

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TOXNET – TOXICOLOGY DATA NETWORKING. ChemIDplus Lite. Available at: <<http://chem.sis.nlm.nih.gov/>>. Access in: December, 2015.

U.S. ENVIRONMENTAL PROTECTION AGENCY. ECOSAR – Ecological Structure-Activity Relationships. Version 1.11. Available at: <<http://www.epa.gov/oppt/newchems/tools/21ecosar.htm>>. Access in: December, 2015.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2015.