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

1.1. Identification of the substance/mixture

Trade name: **HE CITRONNELLE**
Substance name: CITRONELLA OIL
CAS Number: 91771-61-8
CE Number: 294-954-7
REACH Registration number: 01-2120741487-48

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: **Prodasynth**
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@prodasynth.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

Acute Toxicity - Category 4 (oral) - H302
Skin Irritant - Category 2 - H315
Serious eye damage - Category 1 - H318
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:
H302 – Harmful if swallowed.
H304 – May be fatal if swallowed and enters airways.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H318 – Causes serious eye damage.
H411 – Toxic to aquatic life with long lasting effects.

Precautionary statements:
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P330+P331 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. 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.
P305+P351+P338+P310 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Suplemental Hazard Information:
Contains CITRONELLAL, GERANIOL, CITRONELLOL, GERANYL ACETATE, LIMONENE, EUGENOL, LINALOOL, CITRAL. 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 for the environment according to Regulation (EU) 2017/2100 or

Regulation (EU) 2018/605.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical name: CITRONELLA OIL
CAS number: 91771-61-8
EC number: 294-954-7

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
CITRONELLAL	≥25; <50	106-23-0 203-376-6	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317	ATE (oral): 2500 mg/kg, ATE (dermal): 2500 mg/kg
GERANIOL	≥10; <25	106-24-1 203-377-1 603-241-00-5	Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317	ATE (oral): 3600 mg/kg
CITRONELLOL	≥10; <25	106-22-9 203-375-0	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317	ATE (oral): 3450 mg/kg, ATE (dermal): 2650 mg/kg
GERANYL ACETATE	≥1; <10	105-87-3 203-341-5	Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Aquatic Chronic 3 - H412	
LIMONENE	≥1; <10	138-86-3 205-341-0 601-029-00-7	Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412	
CITRONELLYL ACETATE	≥1; <10	150-84-5 205-775-0	Skin Irrit. 2 - H315 Aquatic Chronic 2 - H411	
ISOPULEGOL	≥1; <10	89-79-2 201-940-6	Acute Tox. 4 (oral) - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	ATE (oral): 940 mg/kg
EUGENOL	≥1; <10	97-53-0 202-589-1	Eye Irrit. 2 - H319 Skin Sens. 1B - H317	ATE (oral): 2500 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
CITRAL	≥0.1; <1	5392-40-5 226-394-6 605-019-00-3	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	
MYRCENE	≥0.1; <1	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	

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.

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 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.

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.		
				ppm	mg/m³		ppm	mg/m³
CITRAL	5392-40-5	ES (España) [1]	VLA-ED	5		VLA-EC		
...	...	...	...	...	...	...	...	

...	...	...	...	...	...	...	...	
		PL (Polska)	NDS		27	NDSCh		54

[1] Possibility of significant uptake though the skin.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical sate:	Liquid
Colour:	Conforms to standard
Odour:	Conforms to standard
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and range (°C):	Not determined
Flammability:	Not determined
Lower and upper explosion limit:	Not determined
Flash point:	94 °C
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
pH:	Not determined
Kinematic viscosity:	Not determined
Solubility:	1:2 IN ETHANOL 80°/SOLUBLE IN ETHANOL
Partition coefficient n-octanol/water (log value):	Not determined
Vapour pressure:	Not determined
Density and/or relative density:	0,87−0,89 g/mL (20°C) / 0,87−0,89 (20°C)
Relative vapour density:	Not determined
Particle characteristics:	Not determined

9.2. Other information

9.2.1. Information with regard to phyical hazard classes:
No information avaliable.
9.2.2. Other safety characteristics:
No information avaliable

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

Acute toxicity	Harmful if swallowed. Experimental/calculated data: · LD50(acute/oral) : 300-2000 mg/kg. (Rat). (OECD 420 [2015]). · LD50 (acute/dermal) : >2000 mg/kg. (Rat). (OECD 402 [2015]).
Skin corrosion/irritation	Causes skin irritation. Experimental/calculated data: · Skin irritation : Non-irritant. The product has not been tested. The indication has been derived from the properties of its individual components.
Serious eye damage/irritation	Causes serious eye damage. Experimental/calculated data: · Eye irritation : Irritant. The product has not been tested. The indication has been derived from the properties of its individual components.
Respiratory or skin sensitisation	May cause an allergic skin reaction. Experimental/calculated data: · Skin sensitization : Sensitizing. The product has not been tested. The indication has been derived from the properties of its individual components.
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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties:
Product not containing any component identified as having endocrine disrupting properties for the environment according to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

11.2.2. Other information:
No information available

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Assessment:
Toxic to aquatic life with long lasting effects.

Experimental/calculated data:
· Toxicity for fish: LC50 (96h) : 7.5 mg/L. (Oncorhynchus mykiss).
· Toxicity for aquatic invertebrates: EC50 (48h) : 6 mg/L. (Daphnia magna).
· Toxicity for algae: ErC50 (48h) : 34 mg/L. (Pseudokirchneriella subcapitata).

12.2. Persistence and degradability

The product is readily biodegradable
The product has not been tested. The indication has been derived from the properties of its individual components.
Biodegradation : 50% (delta-cadinene). (OECD TG 301F).

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 for the environment according to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

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
14.1. UN Number	UN3082	UN3082	UN3082
14.2. UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE)
14.3. Transport Hazard Class(es)	9	9	9
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

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
A chemical safety assessment has been carried out for the substance or mixture by the supplier

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.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H318 – Causes serious eye damage.
H319 – Causes serious eye irritation.
H400 – Very toxic to aquatic life.
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.