

1 SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Essential Lemon Oil**
Contains: Citral, d-limonen, beta-pinene, p-mentha-1,4-dien, pin-2(3)-ene
CAS Number: 8008-56-8
EC Number: 284-515-8
Index number: not applicable
Registration number: not applicable
Date of issue: 2020.11.23

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

Identified use: Component natural cleaning product.
Use advised against: Other than those mentioned above, consumption.

1.3 Details of the supplier of the safety data sheet

Distributor: Dragon Poland Spółka z ograniczoną odpowiedzialnością Sp. k.
ul. Rtm. W. Pileckiego 5, 32-050 Skawina,
tel.: +48 12 625 75 00; +48 12 623 80 80;
fax: +48 12 637 79 30
www.dragon.com.pl e-mail: info@dragon.com.pl

E-mail address of the person responsible for the safety data sheet: technologia2@dragon.com.pl

1.4 Emergency telephone number

- 112 (available 24 hours a day, 7 days a week),
- +48 12 625 75 00 (available from Monday to Friday, at 8 am - 4 pm)

2 SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazards deriving from physico-chemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3
H226 - Flammable liquid and vapour.

Health hazards:

Skin. Irrit. 2 – Skin Corrosion/Irritation, category 2
H315 – Causes skin irritation
Skin. Sens. 1 - Skin Sensitization, category 1
H317 - May cause an allergic skin reaction.
Asp. Tox. 1 – Aspiration Hazard, category 1
H304 - May be fatal if swallowed and enters airways.

Environmental hazards:

Acute Chronic 1, category 1
H410 - Very toxic to aquatic life with long lasting effects

2.2. Label elements



GHS pictogram:

GHS02

GHS07

GHS08

GHS09

Signal word:

DANGER

Hazard phrases:

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.

Safety phrases:

P102 - Keep out of reach of children.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P501 - Dispose of contents/container to companies with the necessary permission in accordance with national regulations.

2.3 Other hazards

None of the substances in the mixture satisfies the PBT or vPvB requirements according to the appendix XIII to regulation (WE) no. 1907/2006.

3 SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

Name: **Limonen**

Index number: -

CAS number: 5989-27-5

EC number: 227-813-5

Concentration: **66** [mass percentage]

Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3

H226 - Flammable liquid and vapour.

Hazards to human:

Skin. Irrit. 2 – Skin Corrosion/Irritation, category 2

H315 – Causes skin irritation

Skin. Sens. 1 – Skin Sensitization, category 1
H317 - May cause an allergic skin reaction.

Asp. Tox. 1 – Aspiration Hazard, category 1
H304 - May be fatal if swallowed and enters airways.

Environmental hazards:

Aquatic Acute 1 – Acute Hazard, category 1
H400 - Very toxic to aquatic life

Acute Chronic, category 1
H410 - Very toxic to aquatic life with long lasting effects

Name: B-PINENE

Index number: -
CAS number: 127-91-3
EC number: 204-872-5
Concentration: **13** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3
H226 - Flammable liquid and vapour.

Hazards to human:

Skin. Irrit. 2 – Skin Corrosion/Irritation, category 2
H315 – Causes skin irritation
Skin. Sens. 1 - Skin Sensitization, category 1
H317 - May cause an allergic skin reaction.

Asp. Tox. 1 – Aspiration Hazard, category 1
H304 - May be fatal if swallowed and enters airways.

Environmental hazards:

Not applicable

Name: γ-Terpinene

Index number: -
CAS number: 99-85-4
EC number: 202-794-6
Concentration: **9** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3
H226 - Flammable liquid and vapour.

Hazards to human:

Asp. Tox. 1 – Aspiration Hazard, category 1
H304 - May be fatal if swallowed and enters airways.

Environmental hazards:

Not applicable

Name: CITRAL
Index number: -
CAS number: 5392-40-5
EC number: 226-394-6
Concentration: **3** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Not applicable

Hazards to human:

Skin. Irrit. 2 – Skin Corrosion/Irritation, category 2

H315 – Causes skin irritation.

Skin. Sens. 1 - Skin Sensitization, category 1

H317 - May cause an allergic skin reaction.

Eye Irrit. 2 – Serious Eye Damage / Irritation, category 2

H319 - Causes serious eye irritation.

Environmental hazards:

Not applicable

Name: α -Pinene
Index number: -
CAS number: 80-56-8
EC number: 201-291-9
Concentration: **2,5** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. – Flammable Liquid, category 3

H226 - Flammable liquid and vapour.

Hazards to human:

Asp. Tox. 1 – Aspiration Hazard, category 1

H304 - May be fatal if swallowed and enters airways

Skin. Sens. 1 - Skin Sensitization, category 1

H317 - May cause an allergic skin reaction.

Eye Irrit. 2 – Serious Eye Damage / Irritation, category 2

H319 - Causes serious eye irritation.

Environmental hazards:

Aquatic Acute 1 – Acute Hazard, category 1

H400 - Very toxic to aquatic life

Acute Chronic 1, category 1

H410 - Very toxic to aquatic life with long lasting effects

Name: Sabinene
Index number: -
CAS number: 3387-41-5
EC number: 222-212-4
Concentration: **1,5** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3
H226 - Flammable liquid and vapour.

Hazards to human:

Not applicable.

Environmental hazards:

Not applicable.

Name: **Myrcene**
Index number: -
CAS number: 123-35-3
EC number: 204-622-5
Concentration: **1,5** [mass percentage]
Registration number: -

Hazards resulting from physicochemical properties:

Flam. Liq. 3 – Flammable Liquid, category 3
H226 - Flammable liquid and vapour.

Hazards to human:

Asp. Tox. 1 – Aspiration Hazard, category 1
H304 - May be fatal if swallowed and enters airways

Environmental hazards:

Acute Chronic 3, category 3
H412 - Harmful to aquatic life with long lasting effects

4 SECTION 4: First aid measures

4.1. Description of first aid measures

Respiratory: In case of discomfort move the victim from the area of exposure. Keep at rest. If symptoms persist or discomfort occurs, get medical attention.

Skin contact: Remove contaminated clothing. Wash contaminated skin thoroughly with water and soap. If symptoms persist, consult a physician. Wash contaminated clothing before reuse.

Eye contact: Immediately flush eyes with plenty of water. Remove contact lenses (if any) and continue to rinse for up to 15 minutes, keeping the eyelids wide open and moving the eye backwards and forwards. Consult a physician if irritation occurs and persists. NOTE: Avoid strong water jet as it may damage the corneal.

Ingestion: Get medical attention immediately. Rinse mouth with water.

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

Contact with eye: may cause irritation

Inhalation: May cause coughing and difficulties in breathing

Ingestion: Irritating to the respiratory tract and may cause damage to the central nervous system.

Skin contact: Toxic in contact with skin.

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

Show the safety data sheet, label or container to the medical personnel providing aid.

5. SECTION 5: Firefighting measures

5.1 Extinguishing media

Appropriate firefighting measures: carbon dioxide, dry chemicals, alcohol-resistant foams, spray water jets.

Inappropriate firefighting measures: water jets.

5.2 Special hazards arising from the substance or mixture

Avoid inhalation of combustion products, they can create health hazards.

5.3 Advice for firefighters

Do not allow extinguish water to enter the sewage system and ground water. Follow the standard procedures for extinguishing chemical fires. People involved in fire fighting should be trained, equipped with protective clothing and breathing apparatus with an independent air supply.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Inform the neighbourhood about the emergency. Keep all persons not involved in the emergency action away from the hazardous area. If necessary, order the evacuation. Call Fire Service, rescue crews and State Police. The rescue operation may be held only by trained, equipped teams with proper clothing and protective equipment. Avoid contact with eyes, skin and clothing.

6.2. Environmental precautions

Prevent entry into drains, waters or soil. In case of release of large quantities of the product, inform appropriate OSH, rescue and environmental protection crews and administrative bodies.

6.3. Methods and material for containment and cleaning up

If possible and safe, reduce or stop the leak (by sealing a damaged container, closing liquid flow, placing in an emergency container). Contain the spread of liquid by embanking the spill area; pump out large quantities of collected liquid. Cover small spills with non-combustible absorbent material (e.g., earth, sand, vermiculite) and remove into closed waste containers. If necessary, enlist the help of companies authorised to transport and dispose of waste.

6.4. Reference to other sections

Appropriate conduct with waste product – see section 13.

Personal protective equipment – see section 8.

7. SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes; avoid breathing vapours; prevent the formation of harmful vapour concentrations in the air; work in well-ventilated areas. Follow basic hygiene rules: do not eat, drink, smoke in the workplace, always wash hands with soap and water after finishing work, prevent clothing from contamination. Prevent the body (large body surfaces, in particular) from being contaminated with the product. Take off contaminated and soaked clothes and remove them to a safe place. Wash them before re-use. Use personal

protective equipment as described in Section 8 of this safety data sheet. Provide easy access to emergency equipment (in the event of fire, release, etc.).

7.2. Conditions for safe storage, including any incompatibilities

Store in original, tightly closed and adequately labelled containers or tanks intended for the product in a warehouse adapted to contain caustic liquids. Containers with the product should be protected against sunlight. Ensure proper ventilation.

7.3. Specific end use(s)

See section 1.2.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NDS/NDSch – not determined

- Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (EC 2000, No. 39, as amended).

DN(M)EL and PNEC values – not determined

Information on procedures to monitor airborne concentrations of hazardous ingredients:

- *PN-ISO 4225:1999 Air quality. General aspects. Vocabulary;*
- *PN-EN 689+AC:2019-06 Exposure at work stations - Measurements of inhalation exposure to chemical agents - Strategy for testing compliance with limit values.*

If the concentrations of individual substances in the workplace are established and known, the selection of personal protective equipment should be made taking into account their concentration, exposure time and activities performed by the employee. In an emergency situation, when concentrations of substances in the workplace are not known, personal protection equipment with the highest recommended protection class should be used.

The employer is obliged to ensure that the personal protective equipment used as well as clothing and protective clothing have protective and functional properties and ensure their proper washing, maintenance, repair and disinfection.

8.2. Exposure controls

The personal protective equipment should meet the requirements of:

- *Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC*

Proper control measures:

It is recommended that general ventilation and /or local exhaust be used to keep harmful agent concentrations below applicable maximum exposure limits. Local exhaust ventilation systems are the preferred method because they allow for controlling emissions at source and preventing contaminants from spreading throughout the work area.

Individual protection measures:

Eyes or face protection:

Tightly fitting safety goggles.

Skin protection:

Wear protective gloves made of natural rubber or polyvinyl chloride. It is recommended to change gloves regularly and replace them immediately if there are any signs of their wear, damage (tearing, puncture) or changes in their appearance (colour, elasticity, shape).

- EN ISO 374-1:2017 Protective gloves against dangerous chemicals and micro-organisms – Part 1: Terminology and performance requirements;
- EN 16523-1+A1:2018-11 Determination of material resistance to permeation by chemicals – Part 1: Permeation of potentially hazardous liquid chemical substances under continuous contact conditions.

Respiratory protection:

Under normal conditions, with sufficient ventilation, they are not required; when exposed to concentrations of vapors exceeding the permissible values, use an approved respirator with filter.

- *PN-EN 14387+A1:2010 Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking.*

Environmental exposure controls:

Prevent the substance from entering soil, sewerage systems and water courses.

9. SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

A) Appearance	yellow – light green liquid
B) Odour	characteristic – fresh, lemony, sweet, fruity
C) Odour threshold	not determined
D) pH	not determined
E) Melting point/freezing point	not applicable
F) Initial boiling point and boiling range	not determined
G) Flash point	49°C
H) Evaporation rate	not determined
I) Flammability (solid, gas)	not applicable
J) Upper/lower flammability or explosive limits	not determined
K) Vapour pressure	not determined
L) Vapour density	not determined
M) Relative density	0,846-0,856 g/cm ³ in 20°C
N) Solubility(ies)	in alcohol, insoluble in water
O) Partition coefficient: n-octanol/water	not determined
P) Auto-ignition temperature	not determined
Q) Decomposition temperature	not determined
R) Viscosity	not determined
S) Explosive properties	not determined

T) Oxidizing properties not determined

9.2. Other information

No data available.

10. SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is stable under normal conditions of use and storage.

10.2. Chemical stability

No hazardous reactions will occur if the product is stored and used as prescribed.

10.3. Possibility of hazardous reactions

There are no hazardous reactions when stored and used as instructed.

10.4. Conditions to avoid

Protect from frost and excessive heat, do not store above 15°C

10.5. Incompatible materials

PVC

10.6. Hazardous decomposition products

Depending on the conditions of decomposition, carbon monoxide may be released.

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

Relevant hazard classes for which information is provided include:

- A) acute toxicity;
LD50 (oral, rat) 5000 mg/kg
LD50 (dermal, rabbit) 10000 mg/kg
- B) skin corrosion/irritation;
Considered a skin irritant (route: DRM). There may be irritation and redness at site of contact.
- C) serious eye damage/irritation;
Based on available data, the classification criteria are not met.
- D) respiratory or skin sensitisation;
May cause an allergic skin reaction.
- E) germ cell mutagenicity;
Based on available data, the classification criteria are not met.
- F) carcinogenicity;
Based on available data, the classification criteria are not met.
- G) reproductive toxicity;
Based on available data, the classification criteria are not met.
- H) STOT – single exposure;
Based on available data, the classification criteria are not met.

- I) STOT– repeated exposure;
Based on available data, the classification criteria are not met.
- J) aspiration hazard;
May be fatal if swallowed and enters airways (H304).

12. SECTION 12: Ecological information

12.1. Toxicity

LD50 (toxicity, freshwater alge)	0,523 mg/l
LC50 (toxicity, fish)	0,341 mg/l
LC50 (toxicity, freshwater aquatic invertebrates)	0,313 mg/l
PNECs fresh water	5,4 µg/l
PNECs marine water	0,54 µg/l
PNECs intermittent release	577 µg/l
PNECs freshwater sediment	1,3 mg/kg
PNECs marine water sediment	0,13 mg/kg
PNECs sewage treatment plant	2,1 mg/kg
PNECs soil	0,261 mg/kg
PNECs oral	13,3 mg/kg

12.2. Persistence and degradability

Easily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation potential

12.4. Mobility in soil

Easy biodegradable

12.5. Results of PBT and vPvB assessment

None of the substances of the mixture meets the criteria for PBT or vPvB according to Annex XIII

12.6. Other adverse effects

Do not allow product to entry streams, sewers or other waterways.

13. SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recycling or neutralizing waste product should be carried out in accordance with applicable regulations. Disposal of packaging waste should be carried out in professionally authorized incinerators or waste treatment / disposal facilities.

- *Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)*
- *COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.*

14. SECTION 14: Transport information

The mixture is subject to the regulations on the carriage of dangerous goods contained in ADR (road transport), RID (rail transport), IMDG (maritime transport), ICAO/IATA (air transport).

14.1. UN number

UN 1169

14.2. UN proper shipping name

Extracts, aromatic, liquid.

14.3. Transport hazard class(es)

classification code: F1

hazard digital information: No. 33

warning sticker (s): No. 3

14.4. Packing group

III

14.5. Environmental hazards

Marine pollutant: Da

Symbol (fish and tree)

Marcarea speciale (ADR):

Symbol (fish and tree)

Marcarea speciale (IATA):

Symbol (fish and tree)

14.6. Special precautions for users

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

15. SECTION 15: Regulatory information

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

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (corrigendum OJ L 133 of 29 May 2007, as amended).
- Commission Regulation (EU) No. 2015/830 of 28 May 2015, amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 132 of 29 May 2015).
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353 of 31 December 2008, as amended).
- Regulations Concerning the International Transport of Dangerous Goods by Rail (RID) (Journal of Laws of 2009, No. 167, Item. 1318, as amended).

- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (Appendix to the Journal of Laws of 2009, No. 27, Item. 162).

15.2. Chemical safety assessment

The manufacturer has not carried out a chemical safety assessment for the mixture.

16 SECTION 16: Other information

This safety data sheet was prepared on the basis of information contained in safety data sheets provided by the manufacturers of substances and the currently applicable regulations.

The classification of the mixture has been made on the basis of calculations.

Other data sources:

IUCLID Data Bank (European Commission – European Chemicals Bureau).

ESIS – European Chemical Substances Information System (European Chemicals Bureau).

Revision date	Revision scope	Version
2020.11.23	Date of issue.	1.0 (SDS/NNOENO10CY/EN/2020.11.23)

The information contained in the safety data sheet is intended to describe the product only in terms of safety requirements. The user is liable for providing conditions for safe use of the product and takes responsibility for the consequences resulting from improper use of the product.

The information contained in this safety data sheet applies only to the title product and may not be valid or sufficient for the product used in combination with other materials or different applications.

The user of the product is obliged to observe all applicable standards and regulations, as well as take responsibility arising from the misuse of the information contained in the safety data sheet or improper application of the product..

Explanation of abbreviations and acronyms used in the safety data sheet:

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday

vPvB – Very persistent and very bioaccumulative (substance)

PBT – Persistent, bioaccumulative and toxic (substance)

PNEC – Predictable No-Effect Concentration

DNEL – Derived No-Effect Level

BCF – Bioconcentration factor

LD50 – Lethal dosage at which the death of 50% of the tested animals is observed

LC50 – Lethal concentration at which the death of 50% of the tested animals is observed

EC_x – Concentration associated with X% growth rate response

IC50 – Inhibitory concentration at which 50% inhibition of the tested parameter is observed

RID – Regulation concerning international carriage of dangerous goods by rail

ADR – European agreement concerning the international carriage of dangerous goods by road

IMDG – International Maritime Dangerous Goods Code

IATA – International Air Transport Association

OECD - Organisation for Economic Cooperation and Development

Trainings:

Concerning handling, health and safety at work with hazardous substances and mixtures.

--- The end of the safety data sheet. ---