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Reviewed on: 19.12.2022
Printing date: 19.12.2022

SECTION 01: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name:
PALMAROSA CYMBOPOGON OIL
- Article number:
A0970
- CAS Number:
8014-19-5
- EC Number:
283-461-2
- No CAS EINECS:
84649-81-0
- Registration number
19552430-49-0008

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

Application of the substance / the preparation

Perfume ingredient

Only for industrial use

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

BIOLANDES, BP2 TEL: +33(0)5.58.51.00.00
2760 Route de Bélis email: fds@biolandes.com
40420 LE SEN
FRANCE

1.4 Emergency telephone number:

FR-ORFILA (INRS):+33(0)1 45 42 59 59

SECTION 02: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS05

Eye Dam. 1 - H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 - H315 Causes skin irritation.
Skin Sens. 1 - H317 May cause an allergic skin reaction.
Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms



GHS05 GHS07

- Signal word
Danger
- Hazard statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
EUH070 Toxic by eye contact.
- Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.

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P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P302+P352 IF ON SKIN: Wash with plenty of water.
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

2.3 Other hazards

- Results of PBT and vPvB assessment
 - PBT:
Not applicable.
 - vPvB:
Not applicable.
- Determination of endocrine-disrupting properties
Substance is not listed.

SECTION 03: Composition/information on ingredients

3.1 Substances

- | CAS No. | Description |
|-----------|--|
| 8014-19-5 | Cymbopogon martinii (Roxb.) Will. Watson var. motia (Syn Andropogon martini Roxb.) |
- Identification number(s)
 - EC number:
283-461-2

- Dangerous components:

CAS Number	Description	%
106-24-1	geraniol EC number: 203-377-1 ☠ Eye Dam. 1 - H318; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1 - H317	50,001-100
105-87-3	Geranyl acetate EC number: 203-341-5 ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Chronic 3 - H412	5,001-10,00
78-70-6	Linalool EC number: 201-134-4 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	1,001- 5,00
4602-84-0	Farnesol EC number: 225-004-1 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	1,001- 5,00
5392-40-5	Citral EC number: 226-394-6 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	1,001- 5,00
5989-27-5	d-limonene EC number: 227-813-5 ☠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317; ⚠ Aquatic Acute 1 - H400; Aquatic Chronic 3 - H412	0,01-0,100

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4.1 Description of first aid measures

- General information:
Seek immediate medical advice.
- After inhalation:
Supply fresh air and to be sure call for a doctor.
- After skin contact:
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
Seek immediate medical advice.
- Information for doctor:

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.**SECTION 05: Firefighting measures**

5.1 Extinguishing media

- Suitable extinguishing agents:
CO₂, sand, extinguishing powder. Do not use water.
Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents:
Water with full jet

5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

- Protective equipment:
Do not inhale explosion gases or combustion gases.
- Additional information
Cool endangered receptacles with water spray.

SECTION 06: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 07: Handling and storage

7.1 Precautions for safe handling

Keep receptacles tightly sealed.
 Keep away from heat and direct sunlight.
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
 Handle with care. Avoid jolting, friction and impact.

- **Information about fire - and explosion protection:**
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

- **Requirements to be met by storerooms and receptacles:**
 Store only in the original receptacle.
 Prevent any seepage into the ground.
 Use only receptacles specifically permitted for this substance/ product.
- **Information about storage in one common storage facility:**
 Not required.
- **Further information about storage conditions:**
 Keep container tightly sealed.
 Protect from heat and direct sunlight.
 Store receptacle in a well ventilated area.

7.3 Specific end use(s)

No further relevant information available.

SECTION 08: Exposure controls/personal protection

8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**
 Not required.
- **Additional information:**
 The lists valid during the making were used as basis.

8.2 Exposure controls

- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
 The usual precautionary measures are to be adhered to when handling chemicals.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Do not inhale dust / smoke / mist.
 Avoid contact with the skin.
 Avoid contact with the eyes.
- **Respiratory protection:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
 Protective gloves
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection**
 Safety glasses

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SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Fluid
Colour:	yellow
Odour:	floral
Odour threshold:	Not determined.
Melting point/freezing point:	-15,0 °C
Boiling point or initial boiling point and boiling range	229,0 °C
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	108,0 °C NFT 60-103 CC
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not determined.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density:	Not determined.
Relative density	0,8800 0,8950 D20/20
Vapour density	Not determined.
9.2 Other information	No further relevant information available.
Appearance:	
Form:	fluid
Important information on protection of health and environment, and on safety.	
Auto-ignition temperature:	Not determined.
Explosive properties:	Not determined.
Solvent content:	
Solids content:	0,00 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard classes	
Explosives	not applicable
Flammable gases	not applicable
Aerosols	not applicable
Oxidising gases	not applicable
Gases under pressure	not applicable
Flammable liquids	not applicable
Flammable solids	not applicable
Self-reactive substances and mixtures	not applicable
Pyrophoric liquids	not applicable
Pyrophoric solids	not applicable
Self-heating substances and mixtures	not applicable

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Substances and mixtures, which emit flammable gases in contact with water	not applicable
Oxidising liquids	not applicable
Oxidising solids	not applicable
Organic peroxides	not applicable
Corrosive to metals	not applicable
Desensitised explosives	not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous decomposition products:

Not determined.

SECTION 11: Toxicological information

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

- Acute toxicity

LD/LC50 values relevant for classification:

ISO LD/LC

8014-19-5 Cymbopogon martinii (Roxb.) Will. Watson var. motia (Syn Andropogon martini Roxb.)

Oral, LD50: 3600 mg/kg (rat) (standard acute method)
Dermal, LD50: >5000 mg/kg (Rabbit) (standard acute method)

105-87-3 Geranyl acetate
Oral, LD50: >4000 mg/kg (rat) (NTP 1987)

78-70-6 Linalool
Oral, LD50: 2790 mg/kg (rat)
Dermal, LD50: 5610 mg/kg (Rabbit)

4602-84-0 Farnesol
Oral, LD50: 20000 mg/kg (rat)
Dermal, LD50: 15000 mg/kg (rat)

5392-40-5 Citral
Oral, LD50: 4960 mg/kg (rat)

5989-27-5 (R)-p-mentha-1,8-diene
Oral, LD50: 4400 mg/kg (rat)

- Primary irritant effect:
 - Skin corrosion/irritation
Irritant to skin and mucous membranes.
Causes skin irritation.
 - Serious eye damage/irritation
Strong irritant with the danger of severe eye injury.
Causes serious eye damage.
- Respiratory or skin sensitisation
Sensitization possible through skin contact.
- Germ cell mutagenicity

105-87-3 Geranyl acetate
OECD 471 AMES: NEGATIVE (in vitro) (NTP 1987)

78-70-6 Linalool

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- OECD 471 AMES: NEGATIVE (in vitro) (Letizia and al., 2007)
- Carcinogenicity
- 105-87-3 Geranyl acetate**
Micronoyau: NEGATIVE (mouse) (in vivo, Shelby 1993)
- 78-70-6 Linalool**
Micronoyau: NEGATIVE (mouse) (in vivo, Letizia and al., 2007)
Micronoyau: NEGATIVE (in vitro) (DiSotto and al., 2011)
- Reproductive toxicity
Not determined.
- STOT-single exposure
Not determined.
- STOT-repeated exposure
Not determined.
- Aspiration hazard
Not determined.
- Subacute to chronic toxicity:
- 78-70-6 Linalool**
Oral, NOAEL: 200 mg/kg (rat) (maternal toxicity, Politano and al., 2008)
- 11.2 Information on other hazards
- Endocrine disrupting properties
Substance is not listed.

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:

8014-19-5 Cymbopogon martinii (Roxb.) Will. Watson var. motia (Syn Andropogon martini Roxb.)

CE50/48h: 10,8 mg/l (daphnia) (OECD 202)
ErC50(0-72h): 13,9 mg/l (algae) (OECD 201)

78-70-6 Linalool

LD50: 27,8 mg/l (fish) ((OECD 203) RIFM 1991)
ErC50(0-72h): 156,7 mg/l (algae)
ErC50(0-48h): 59 mg/l (daphnia) ((OECD 202)

5989-27-5 (R)-p-mentha-1,8-diene

LD50: 0,71 mg/l (fish) (OECD 203)

12.2 Persistence and degradability

No further relevant information available.

- Behaviour in environmental systems:
Not determined.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

- PBT:
Not applicable.
- vPvB:
Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.6 Other adverse effects

No further relevant information available.

- Ecotoxicological effects:
Not determined.
- Remark:
Harmful to fish
- Additional ecological information:
- General notes:
Harmful to aquatic organisms

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The material is harmful to the environment.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Recommendation
Must be specially treated adhering to official regulations.
- Uncleaned packaging:
- Recommendation:
Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR Void

IMDG Void

IATA Void

14.2 UN proper shipping name

ADR Void

IMDG Void

IATA Void

14.3 Transport hazard class(es)

ADR

Class Void

IMDG

Class Void

IATA

Class Void

14.4 Packing group

ADR Void

IMDG Void

IATA Void

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

- Transport/Additional information:
Not applicable.

SECTION 15: Regulatory information

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

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II
Substance is not listed.
- REGULATION (EU) 2019/1148
- Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
Substance is not listed.
- Annex II - REPORTABLE EXPLOSIVES PRECURSORS
Substance is not listed.
- Regulation (EC) No 273/2004 on drug precursors

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- Substance is not listed.
- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
Substance is not listed.
- National regulations:
- Waterhazard class:
Water hazard class 1 (Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information in this safety data sheet is based on the state of our knowledge at the date indicated. The information in this sheet must be regarded as a description of the safety requirements for the product, they are not to be considered a warranty or quality specification and have no contractual value on properties and application areas thereof. The information contained in this safety data sheet relate to the specific material designated and may not be valid with respect to the product associated with another product or process, unless it is specified in the text of this document.

The required information complies with EU regulations in force. It does not exempt the user from knowing and applying all the national regulations in force.

- Relevant 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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
- Training hints
Minimum training in occupational risk prevention is recommended for personnel who will handle this product, in the purpose of facilitating the understanding and interpretation of this form of safety data in the same way as the labeling of the product.
- Abbreviations and acronyms:
IFRA:International Fragrance Association IOFI:International Organization of the Flavor Industry IFRA:International Fragrance Association IOFI:International Organization of the Flavor Industry
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation DOT: US Department of Transportation
IATA: International Air Transport Association IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation ICAO: International Civil Aviation Organisation
GHS: Globally Harmonised System of Classification and Labelling of Chemicals GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society) CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative vPvB: very Persistent and very Bioaccumulative
CE50: effective concentration at 50% ErC50:concentration of test substance which results in a 50 percent reduction in either growth rate (ErC50)relative to the control within 72hrs exposure.
- Sources
IFRA/IOFI Labelling Manual,REACH registration dossier,supplier information

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