ORGANIC CITRONELLA JAVA OIL

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 10/21/2014 Revision date: 10/15/2019 Supersedes: 11/23/2015 Version: 1.2

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

1.1. Product identifier

Product form : Substance

Substance name : ORGANIC CITRONELLA JAVA OIL

EC-No. : 294-954-7

CAS-No. : 91771-61-8

Product code : CITHE02_BIO

Product group : Organic essential oil

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

1.2.1. Relevant identified uses

Main use category : Industrial use

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

EXAFLOR
5 rue des Pyrénées
P.O. Box CP 30561
94653 Rungis Cedex - France
T +33 (0)1 41 73 23 10 - F +33 (0)1 41 73 23 19
exaflor@orange.fr - www.exaflor.fr

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
	ORFILA (FRANCE)		+33 1 45 42 59 59	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS07 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : 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 (CLP) : P261 - Avoid breathing fume, gas, dust, vapours.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of with water & soap.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.
P321 - Specific treatment (see Read label before use. on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients
3.1. Substances
Name : ORGANIC CITRONELLA JAVA OIL
CAS-No. : 91771-61-8
EC-No. : 294-954-7

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CITRONELLAL	(CAS-No.) 106-23-0 (EC-No.) 203-376-6	25 - 45.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
GERANIOL	(CAS-No.) 106-24-1 (EC-No.) 203-377-1	10 - 25	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
CITRONELLOL	(CAS-No.) 106-22-9 (EC-No.) 203-375-0	8 - 17	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
GERANYL ACETATE	(CAS-No.) 105-87-3 (EC-No.) 203-341-5	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
D-LIMONENE	(CAS-No.) 5989-27-5 (EC-No.) 227-813-5 (EC Index-No.) 601-029-00-7	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
LINALOOL	(CAS-No.) 78-70-6 (EC-No.) 201-134-4	<= 2.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
CITRAL	(CAS-No.) 5392-40-5 (EC-No.) 226-394-6	<= 2	Skin Irrit. 2, H315 Skin Sens. 1, H317
FARNESOL	(CAS-No.) 4602-84-0 (EC-No.) 225-004-1	<= 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
EUGENOL	(CAS-No.) 97-53-0 (EC-No.) 202-589-1	<= 0.9	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of water/…. Wash contaminated clothing before reuse. If skin irritation occurs: Immediately call a POISON CENTER/doctor, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Read label before use. on this label). If skin irritation or rash occurs: Immediately call a POISON CENTER/doctor, Get immediate medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye damage.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing smokes, vapours.

Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Maximum storage period : 36 months Shelf life to guarantee the quality and properties of the product; After this period, it is recommended to control organoleptic and physicochemical properties before using the raw material.

Storage temperature : <= 18 (5 - 25) °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid mobile. Clear.
Colour	: light yellow. Yellow. light brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 70 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.876 - 0.895
Solubility	: Poorly soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Refractive index	: 1.46 - 1.475

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products
fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ORGANIC CITRONELLA JAVA OIL (91771-61-8)	
LD50 oral rat	7200 mg/kg
LD50 dermal rabbit	4700 mg/kg

CITRONELLAL (106-23-0)	
LD50 oral rat	2420 mg/kg
LD50 dermal rabbit	> 2500 mg/kg

GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

CITRONELLOL (106-22-9)	
LD50 oral rat	3450 mg/kg
LD50 dermal rabbit	2650 mg/kg

GERANYL ACETATE (105-87-3)	
LD50 oral rat	6330 mg/kg
, Dermal, Guinea pig	= 100 mg (24 Hours, May cause moderate irritation.)
Skin irritation, Dermal, rabbit	= 100 mg (24 Hours, Notes to physician : Risk of severe skin irritation)

D-LIMONENE (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg
LD50 oral	3120 mg/kg LD50 oral mouse
LD50 dermal rabbit	5610 mg/kg

FARNESOL (4602-84-0)	
LD50 oral rat	6000 mg/kg
LD50 oral	7400 mg/kg mouse
LD50 dermal rabbit	> 5000 mg/kg

EUGENOL (97-53-0)	
LD50 oral rat	1930 mg/kg
LC50 inhalation rat (ppm)	> 384 ppmv/4h

CITRAL (5392-40-5)	
LD50 oral rat	4960 mg/kg
LD50 oral	6000 mg/kg LD50 oral mouse
LD50 dermal rabbit	2550 mg/kg

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Not classified
Additional information : Based on available data, the classification criteria are not met

D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable

EUGENOL (97-53-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met
STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met
STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met
Aspiration hazard : Not classified
Additional information : Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

GERANIOL (106-24-1)	
LC50 fish 1	env. 22 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 Daphnia 1	10.8 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 other aquatic organisms 1	13.1 mg/l Desmodesmus subspicatus (green algae) -72h

CITRONELLOL (106-22-9)	
LC50 fish 1	10 - 22 mg/l Leuciscus idus (Ide; golden orfe) - 96h
EC50 Daphnia 1	17 mg/l daphnia - 48h
EC50 other aquatic organisms 1	2.4 mg/l algae - 72h

D-LIMONENE (5989-27-5)	
LC50 fish 1	0.702 mg/l Pimephales promela (fathead minnow) -96h
EC50 Daphnia 1	69.6 daphnia - 48h

LINALOOL (78-70-6)	
LC50 fish 1	27.8 mg/l EC 50 (fish : rainbow trout) : - 96h
LC50 other aquatic organisms 1	88.3 mg/l Desmodesmus subspicatus (green algae) - 96h

EC50 Daphnia 1	59 mg/l EC50 48h - Daphnia magna [mg/l]
NOEC chronic fish	3.5 mg/l Oncorhynchus mykiss (Rainbow trout)- 96h
NOEC chronic crustacea	25 mg/l daphnia - 48h

FARNESOL (4602-84-0)	
LC50 fish 1	1.8 mg/l Oncorhynchus mykiss (Rainbow trout) -96h
EC50 Daphnia 1	2.2 mg/l EC50 48h - Daphnia magna [mg/l]

EUGENOL (97-53-0)	
LC50 fish 1	13 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 Daphnia 1	1.13 mg/l EC50 48h - Daphnia magna [mg/l]

12.2. Persistence and degradability

ORGANIC CITRONELLA JAVA OIL (91771-61-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.

CITRONELLAL (106-23-0)	
Persistence and degradability	May cause long-term adverse effects in the environment.

GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	80 - 100 % aérobic, Exposure duration 3 days

CITRONELLOL (106-22-9)	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
Chemical oxygen demand (COD)	2.05 g O_2/g substance

GERANYL ACETATE (105-87-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.

D-LIMONENE (5989-27-5)	
Persistence and degradability	May cause long-term adverse effects in the environment.

LINALOOL (78-70-6)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	100 % 13 DAYS- ZAHN-WELLENS TEST OECD N° 302 B

EUGENOL (97-53-0)	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.

CITRAL (5392-40-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

ORGANIC CITRONELLA JAVA OIL (91771-61-8)	
Bioaccumulative potential	Not established.

CITRONELLAL (106-23-0)	
Bioaccumulative potential	Not established.

GERANIOL (106-24-1)	
Log Pow	2.5 at 25 °C
Bioaccumulative potential	Not established.

CITRONELLOL (106-22-9)	
Log Pow	3.41
Bioaccumulative potential	Not established.

GERANYL ACETATE (105-87-3)	
Log Kow	4.04
Bioaccumulative potential	Not established.

D-LIMONENE (5989-27-5)	
Bioaccumulative potential	Not established.

LINALOOL (78-70-6)	
Log Pow	2.97
Bioaccumulative potential	Not established.

EUGENOL (97-53-0)	
Log Pow	2.7
Log Kow	2.27
Bioaccumulative potential	Not established.

CITRAL (5392-40-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to contents/container to agreemented companies according to national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information
In accordance with ADR

14.1. UN number
UN-No. (ADR) : UN 3082

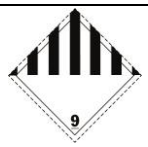
14.2. UN proper shipping name
Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

14.3. Transport hazard class(es)
ADR

Transport hazard class(es) (ADR) : 9

Danger labels (ADR) : 9

: 

14.4. Packing group

Packing group (ADR) : III

14.5. Environmental hazards

Dangerous for the environment : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 601

Limited quantities (ADR) : 5l

Excepted quantities (ADR) : E1

Vehicle for tank carriage : AT

Transport category (ADR) : 3

Hazard identification number (Kemler No.) : 90

Orange plates : 

Tunnel restriction code (ADR) : E

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(a)	D-LIMONENE	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	ORGANIC CITRONELLA JAVA OIL ; GERANYL ACETATE ; EUGENOL ; LINALOOL ; FARNESOL ; D-LIMONENE ; GERANIOL ; CITRAL ; CITRONELLAL ; CITRONELLOL	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	ORGANIC CITRONELLA JAVA OIL ; GERANYL ACETATE ; EUGENOL ; D-LIMONENE ; CITRONELLAL ; CITRONELLOL	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	D-LIMONENE	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

ORGANIC CITRONELLA JAVA OIL is not on the REACH Candidate List

ORGANIC CITRONELLA JAVA OIL is not on the REACH Annex XIV List

ORGANIC CITRONELLA JAVA OIL is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

ORGANIC CITRONELLA JAVA OIL is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Reference to AwSV	: Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 2891)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources	: 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.
Other information	: None.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
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.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.