

1465602

Reviewed on: 20.12.2022
Printing date: 20.12.2022

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

1.1 Product identifier

- * Trade name:
Verbena absolute
- * Article number:
F3145
- * CAS Number:
8024-12-2
- * EC Number:
285-515-0
- * No CAS EINECS:
85116-63-8

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

- * Flavouring agent
- * 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



GHS08

Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 - H315 Causes skin irritation.
Eye Irrit. 2 - H319 Causes serious eye irritation.
Skin Sens. 1 - H317 May cause an allergic skin reaction.



GHS09

Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

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



GHS08



GHS07



GHS09

- Signal word
Danger

- Hazard statements

H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.

- * H317 May cause an allergic skin reaction.
- * H319 Causes serious eye irritation.

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- H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 - P264 Wash thoroughly after handling.
 - P272 Contaminated work clothing should not be allowed out of the workplace.
 - P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 - P405 Store locked up.
 - 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 |
|-------------|----------------------------|
| * 8024-12-2 | Verbena absolute |
| | • Identification number(s) |
| | • EC number:
285-515-0 |

- Dangerous components:

CAS Number		%
* 5392-40-5	Citral	20,001-50,00
	EC number: 226-394-6	
	⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	H319, Skin Sens. 1B - H317	
* 5989-27-5	d-limonene	10,001-20,00
	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	
* 470-82-6	Eucalyptol	5,001-10,00
	EC number: 207-431-5	
	⚠ Flam. Liq. 3 - H226; ⚠ Skin Sens.	
	1B - H317	
* 106-24-1	geraniol	1,001- 5,00
	EC number: 203-377-1	
	⚠ Eye Dam. 1 - H318; ⚠ Skin Irrit. 2	
	- H315, Skin Sens. 1 - H317	
* 78-70-6	Linalool	0,101-1,00
	EC number: 201-134-4	
	⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	H319, Skin Sens. 1B - H317	
* 106-22-9	dl-Citronellol	0,101-1,00
	EC number: 203-375-0	
	⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	H319, Skin Sens. 1B - H317	

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SECTION 04: First aid measures

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.
- **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 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:	light yellow to orange-yellow
*	Odour:	fruit-like
	Odour threshold:	Not determined.
	Boiling point or initial boiling point and boiling range	Not determined.
	Flammability	Not determined.
	Lower and upper explosion limit	
*	Lower:	Not determined.
*	Upper:	Not determined.
*	Flash point:	66,0 °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	0,8850 0,9050 (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
*	Substances and mixtures, which emit flammable gases in contact with water	not applicable

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*	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

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)

* **470-82-6**

Eucalyptol

Oral, LD50: 3849 mg/kg (mouse) (Jiao Xu, 2014)

* **78-70-6**

Linalool

Oral, LD50: 2790 mg/kg (rat)

* **106-22-9**

dl-Citronellol

Oral, LD50: 3450 mg/kg (rat)

* **106-22-9**

dl-Citronellol

Dermal, LD50: 2650 mg/kg (Rabbit)

- Primary irritant effect:

- Skin corrosion/irritation

Irritant to skin and mucous membranes.

Causes skin irritation.

* **78-70-6**

Linalool

- Serious eye damage/irritation

Irritating effect.

Causes serious eye irritation.

* **470-82-6**

Eucalyptol

- Respiratory or skin sensitisation

- Sensitization possible through skin contact.

- Germ cell mutagenicity

* **470-82-6**

Eucalyptol

OECD 471 AMES: NEGATIVE (in vitro) (Haworth, 1983)

* **78-70-6**

Linalool

OECD 471 AMES: NEGATIVE (in vitro) (Letizia and al., 2007)

- Carcinogenicity

* **78-70-6**

Linalool

Micronoyau: NEGATIVE (mouse) (in vivo, Letizia and al., 2007)

* **78-70-6**

Linalool

Micronoyau: NEGATIVE (in vitro) (DiSotto and al., 2011)

- Reproductive toxicity

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- * Not determined.
- * • STOT-single exposure
 Not determined.
- * • STOT-repeated exposure
 Not determined.
- * • Aspiration hazard
- * May be fatal if swallowed and enters airways.
- * May be fatal if swallowed and enters airways.
- * • Subacute to chronic toxicity:
 Not determined.
- 11.2 Information on other hazards
- * • Endocrine disrupting properties
 Substance is not listed.

SECTION 12: Ecological information

- 12.1 Toxicity
 - Aquatic toxicity:
- * **5989-27-5 (R)-p-mentha-1,8-diene**
 LD50: 0,71 mg/l (fish) (OECD 203)
- * **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)
- * 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:
 Toxic for fish
- * • Additional ecological information:
- * • General notes:
 Toxic for aquatic organisms
 The material is harmful to the environment.

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.

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SECTION 14: Transport information

14.1 UN number or ID number

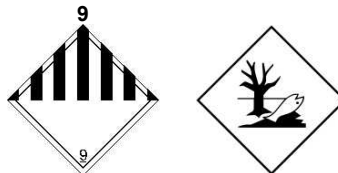
ADR UN3082
IMDG UN3082
IATA UN3082

14.2 UN proper shipping name

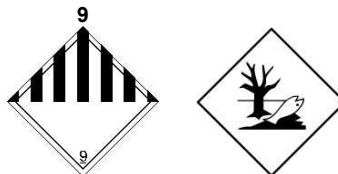
ADR 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIPPIA CITRIODORA EXTR.)
IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIPPIA CITRIODORA EXTR.)
IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIPPIA CITRIODORA EXTR.)

14.3 Transport hazard class(es)

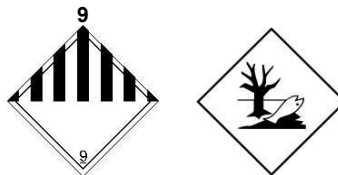
ADR
Class 9 (M6) Miscellaneous dangerous substances and articles.
Label



IMDG
Class 9 Miscellaneous dangerous substances and articles.
Label



IATA
Class 9 Miscellaneous dangerous substances and articles.
Label



14.4 Packing group

ADR III
IMDG III
IATA III

14.5 Environmental hazards:

Marine pollutant: Yes

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.
Danger code (Kemler): 90
EMS Number: F-A,S-F

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

- Transport/Additional information:
Not applicable.

ADR
Excepted quantities (EQ): E1

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Limited quantities (LQ) 5L

Transport category 3

Tunnel restriction code E

IMDG

Limited quantities (LQ) 5L

Excepted quantities (EQ) E1

- UN "Model Regulation":
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIPPIA CITRIODORA EXTR.), 9, III

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
 - * 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 2 (Self-assessment): 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

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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
- * Data compared to the previous version altered.