

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

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

1.1 Product identifier

- Trade name:
VETIVER MD OIL
- Article number:
F3170
- CAS Number:
8016-96-4
- EC Number:
282-490-8
- No CAS EINECS:
84238-29-9
- Registration number
01-2120119716-55-0002

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



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



GHS07 GHS09

- Signal word

Warning

- Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

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.

(continued on page 2)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 1)

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
- * None of the ingredients is listed.

SECTION 03: Composition/information on ingredients

3.1 Substances

CAS No.	Description
8016-96-4	Chrysopogon zizanioides (L.) Roberty (Syn Vetiveria zizanioides (L.) Nash)

- Identification number(s)
- EC number:
282-490-8

• Dangerous components:

CAS Number		%
15764-04-2	alpha-Vetivone	5,001-10,00
	EC number: 239-855-1	
	⚠ Skin Sens. 1B - H317	
97-54-1	ISOEUGENOL	0,010-0,100
	EC number: 202-590-7	
	⚠ Acute Tox. 4 - H302, Acute Tox. 4 -	
	H312, Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	H319, Skin Sens. 1A - H317;	
	Skin Sens. 1A; H317: C >= 0,01 %	

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.
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.

EU

(continued on page 3)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 2)

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.

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.

EU

(continued on page 4)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 3)

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:
Use suitable respiratory protective device in case of insufficient ventilation.
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.
- 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
* • Body protection:
* Impervious protective clothing
* Boots

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Fluid
Colour:	yellow to green-yellow
Odour:	woody
Odour threshold:	Not determined.
Melting point/freezing point:	< -20,0 °C
Boiling point or initial boiling point and boiling range	276,0 °C
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	119,0 °C NFT 60-103 CC
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.

(continued on page 5)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 4)

Solubility	
water:	Not determined.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	at 20,00 °C 0,0152 mbar
Density and/or relative density	
Density:	Not determined.
Relative density	0,9800 -0,9980
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
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.

(continued on page 6)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 5)

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

8016-96-4 Chrysopogon zizanioides (L.) Roberty (Syn

Vetiveria zizanioides (L.) Nash)

Oral, LD50: >5000 mg/kg (rat) (OECD 401)

Dermal, LD50: >5000 mg/kg (Rabbit) (OECD 402)

*

97-54-1 ISOEUGENOL

Oral, LD50: 1560 mg/kg (rat)

- Primary irritant effect:
- Skin corrosion/irritation
Irritant to skin and mucous membranes.
Causes skin irritation.
- Serious eye damage/irritation
Irritating effect.
Causes serious eye irritation.
- Respiratory or skin sensitisation
Sensitization possible through skin contact.
- Germ cell mutagenicity

8016-96-4 Chrysopogon zizanioides (L.) Roberty (Syn

Vetiveria zizanioides (L.) Nash)

OECD 471 AMES: NEGATIVE (in vitro) (2010, REACH file)

- Carcinogenicity
Not determined.
- Reproductive toxicity
Not determined.
- STOT-single exposure
Not determined.
- STOT-repeated exposure
Not determined.
- Aspiration hazard
Not determined.
- Subacute to chronic toxicity:
Not determined.
- 11.2 Information on other hazards
- Endocrine disrupting properties

*

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:

8016-96-4 Chrysopogon zizanioides (L.) Roberty (Syn

Vetiveria zizanioides (L.) Nash)

CE50/48h: 0,95 mg/l (daphnia) (OECD 202, 2004)

ErC50(0-48h): 9,1 mg/l (algae) (2010, REACH file)

12.2 Persistence and degradability

8016-96-4 Chrysopogon zizanioides (L.) Roberty (Syn

Vetiveria zizanioides (L.) Nash)

OECD 301: 41,8 % (in vitro) (310 28 days, 2010)

Not easily biodegradable

- Behaviour in environmental systems:
Not determined.

12.3 Bioaccumulative potential

No further relevant information available.

(continued on page 7)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 6)

- 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

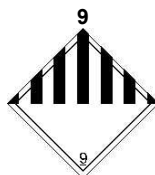
- 13.1 Waste treatment methods
- Recommendation
Must be specially treated adhering to official regulations.
 - Uncleaned packaging:
 - Recommendation:
Disposal must be made according to official regulations.

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.
(VETIVERIA ZIZANOIDES) |
| • IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(VETIVERIA ZIZANOIDES) |
| • IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(VETIVERIA ZIZANOIDES) |

14.3 Transport hazard class(es)

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



- | | |
|---------|--|
| • IMDG | |
| • Class | 9 Miscellaneous dangerous substances and articles. |

(continued on page 8)

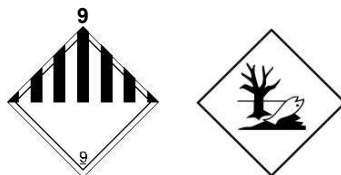
1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 7)

Label

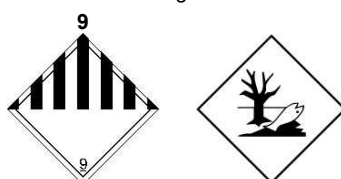


IATA

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:

ADR

Excepted quantities (EQ): E1

Limited quantities (LQ) 5L

Transport category 3

IMDG

Limited quantities (LQ) 5L

Excepted quantities (EQ) E1

UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (VETIVERIA ZIZANOIDES), 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
None of the ingredients is listed.
- * **REGULATION (EU) 2019/1148**
- * **Annex I - RESTRICTED EXPLOSIVES PRECURSORS** (Upper limit value for the purpose of licensing under Article 5(3))
None of the ingredients is listed.
- * **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.
- * **Regulation (EC) No 273/2004** on drug precursors
None of the ingredients is listed.
- * **Regulation (EC) No 111/2005** laying down rules for the monitoring of trade between the Community and third countries in drug precursors
None of the ingredients is listed.

(continued on page 9)

1563505

Reviewed on: 24.11.2023
Printing date: 30.11.2023

PRODUCT : VETIVER MD OIL

(continued of page 8)

- National regulations:
- * • Technical instructions (air):
- * • Class Share in %
- * I
- 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

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
- 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.
- * • Date of previous version:
* 20.12.2022
- * • Version number of previous version:
* 1.00
- Abbreviations and acronyms:
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)
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
DOT: US Department of Transportation
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
- Sources
IFRA/IOFI Labelling Manual, REACH registration dossier, supplier information
- * Data compared to the previous version altered.