

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

1. Product identifier
 - Trade name:
PATCHOULI DM HE
 - CAS Number:
8014-09-3
 - EC number:
939-227-3
 - Registration number
01-2119967775-18-xxxx
2. Relevant identified uses of the substance or mixture and uses advised against
 - Application of the substance / the preparation
Aromatic ingredient(s). Industrial use only.
 - Uses advised against
not applicable
3. Details of the supplier of the safety data sheet
 - Manufacturer/Supplier:
ROBERTET 37 avenue Sidi-Brahim
BP 52100 F-06131 GRASSE CEDEX
Tel: +33 (0)4 93 40 33 66 (during normal opening times 8h-18h)
Fax: +33 (0)4 93 70 68 09
legis@robertet.com
4. Emergency telephone number:
ORFILA (INRS): + 33 (0)1 45 42 59 59 Poison Control and Toxicovigilance Centers ANGERS: 02 41 48 21 21
BORDEAUX: 05 56 96 40 80 LILLE: 0800 59 59 59 LYON: 04 72 11 69 11 MARSEILLE: 04 91 75 25 25 NANCY: 03
83 22 50 50 PARIS: 01 40 05 48 48 STRASBOURG: 03 88 37 37 37, TOULOUSE: 05 61 77 74 47

SECTION 02: Hazards identification

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 Sens. 1B - H317 May cause an allergic skin reaction.



GHS09

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

- Additional information:
Full text of H statements: see section 16

2. Label elements
 - Labelling according to Regulation (EC) No 1272/2008

- Hazard pictograms



GHS08



GHS07



GHS09

- Signal word

(continued on page 2)

PRODUCT : PATCHOULI DM HE

(continued of page 1)

Danger

- Hazard statements

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves.

P331 Do NOT induce vomiting.

P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

3. Other hazards

• Results of PBT and vPvB assessment

*

- PBT:

*

None of the ingredients is listed.

*

- vPvB:

*

None of the ingredients is listed.

• Determination of endocrine-disrupting properties

None of the ingredients is listed.

SECTION 03: Composition/information on ingredients

• Chemical characterization

• CAS Number:

8014-09-3

• EINECS Number:

939-227-3

• Dangerous components:

CAS Number		%
5986-55-0	Patchouli alcohol EC number: 227-807-2 Aquatic Chronic 2 - H411	30,00- 40,00
3691-11-0	delta-Guaiene Asp. Tox. 1 - H304; Skin Irrit. 2 - H315, Eye Irrit. 2 - H319	20,00- 30,00
3691-12-1	alpha-Guaiene EC number: 641-402-1 Asp. Tox. 1 - H304; Skin Irrit. 2 - H315, Eye Irrit. 2 - H319	10,00- 20,00
87-44-5	beta-Caryophyllene EC number: 201-746-1 Asp. Tox. 1 - H304; Skin Sens. 1B - H317	1,00- 5,00
80-56-8	2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene EC number: 201-291-9 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 1 - H410 (M=1)	0,001- 0,10
127-91-3	6,6-Dimethyl-2-methylenebicyclo[3.1.1]heptane EC number: 204-872-5	0,001- 0,10

(continued on page 3)

PRODUCT : PATCHOULI DM HE

(continued of page 2)

Asp. Tox. 1 - H304; Flam. Liq. 3
 - H226; Skin Irrit. 2 - H315, Skin
 Sens. 1B - H317; Aquatic Acute 1 -
 H400 (M=1), Aquatic Chronic 1 - H410 (M=1)

SECTION 04: First aid measures

1. Description of first aid measures
 - General information:
Seek immediate medical advice.
 - After inhalation:
Supply fresh air; consult doctor in case of complaints.
 - After skin contact:
Immediately wash with water and soap and rinse thoroughly.
 - After eye contact:
Rinse opened eye for several minutes under running water.
 - After swallowing:
If symptoms persist consult doctor.
2. Most important symptoms and effects, both acute and delayed
No further relevant information available.
3. Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 05: Firefighting measures

1. Extinguishing media
 - Suitable extinguishing agents:
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
 - For safety reasons unsuitable extinguishing agents:
Non applicable
2. Special hazards arising from the substance or mixture
No further relevant information available.
3. Advice for firefighters
No specific advice

SECTION 06: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures
 - For non-emergency personnel
Wear protective equipment. Keep unprotected persons away.
 - For emergency responders
Wear protective equipment. Keep unprotected persons away.
2. Environmental precautions:
Do not allow to enter sewers/ surface or ground water.
3. Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
4. Reference to other sections
See Section 13 for disposal information.

F

(continued on page 4)

PRODUCT : PATCHOULI DM HE

(continued of page 3)

SECTION 07: Handling and storage

1. Precautions for safe handling
 - Avoid contact with skin and eyes Wear appropriate protective equipments (gloves, glasses ...)
 - Information about fire - and explosion protection:
 - Keep ignition sources away - Do not smoke.
2. Conditions for safe storage, including any incompatibilities
 - Requirements to be met by storerooms and receptacles:
 - Avoid exposure to extreme temperatures. Avoid prolonged contact with certain plastic materials (PVC..)
 - Information about storage in one common storage facility:
 - Not required.
 - Further information about storage conditions:
 - None.
3. Specific end use(s)
 - No further relevant information available.

SECTION 08: Exposure controls/personal protection

1. Control parameters
 - Ingredients with limit values that require monitoring at the workplace:
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - DNELs

PATCHOULI DM HE

 - Dermal, DNELacut(W)loc: 48,85 mg/cm²
 - Inhalative, DNEL(W)sys: 11,48 mg/m³
 - Inhalative, NOAEC(W)sys: 861 mg/m³
 - Inhalative, DNEL(W)loc: 28,71 mg/m³
 - Inhalative, DNELacute(W)loc: 172,26 mg/m³
 - Dermal, DNEL(W)sys: 3,26 mg/kg bw/day
 - Dermal, NOAEL(W)sys: 977 mg/kg bw/day
 - Dermal, DNEL(W)loc: 8,14 mg/cm²
 - Inhalative, DNELacute(W)sys: 68,9 mg/m³
 - Inhalative, DNELacut(GP)sys: 16,99 mg/m³
 - Oral, DNELacut(GP)sys: 9,77 mg/kg bw/day
 - Inhalative, DNEL(GP)sys: 2,83 mg/m³
 - Inhalative, NOAEC(GP)sys: 424,78 mg/m³
 - Inhalative, DNEL(GP)loc: 7,08 mg/m³
 - Inhalative, DNELacute(GP)lo: 42,48 mg/m³
 - Dermal, DNEL(GP)sys: 1,63 mg/kg bw/day
 - Dermal, NOAEL(GP)sys: 977 mg/kg bw/day
 - Dermal, DNEL(GP)loc: 4,07 mg/cm²
 - Oral, DNEL(GP)sys: 1,63 mg/kg bw/day
 - Oral, NOAEL(GP)sys: 977 mg/kg bw/day
 - Ingredients with biological limit values:
 - No further relevant information available.
 - Additional information:

Patchouli Oil is a multi-constituent substance. It is not appropriate to determine PNEC for Patchouli oil (as a whole substance), hence the PNEC is calculated for each of the 3 key constituents that represent blocks of related constituents in Patchouli Oil (alpha-guaiene, alpha-bulnesene, patchouli alcohol). PNEC aqua (freshwater): 0,006 mg/L (alpha-bulnesene) 0,005 mg/L (alpha-guaiene) 0,001 mg/L (patchouli alcohol)
 PNEC aqua (marine water): 0,006 mg/L (alpha-bulnesene) 0,005 mg/L (alpha-guaiene) 0,0001 mg/L (patchouli alcohol)
 PNEC STP : 10 mg/L (alpha-bulnesene) 10 mg/L (alpha-guaiene) 10 mg/L (patchouli alcohol)
 PNEC sediment (freshwater): 4.6 mg/kg sediment dw (alpha-bulnesene) 4.14 mg/kg sediment dw (alpha-guaiene) 0.43 mg/kg sediment dw (patchouli alcohol)
 PNEC sediment (marine water): 4,6 mg/kg sediment dw (alpha-bulnesene) 4,14 mg/kg sediment dw (alpha-guaiene) 0.043 mg/kg sediment dw (patchouli alcohol)
 PNEC soil: 0,479 mg/kg soil dw (alpha-bulnesene) 0,868 mg/kg soil dw (alpha-guaiene) 0,085 mg/kg soil dw (patchouli alcohol)
 PNEC oral : 65,1 mg/kg food (alpha-bulnesene) 65,1 mg/kg food (alpha-guaiene) 18,5 mg/kg food (patchouli alcohol)
2. Exposure controls

(continued on page 5)

PRODUCT : PATCHOULI DM HE

(continued of page 4)

- Appropriate engineering controls
No further data; see item 7.
- Individual protection measures, such as personal protective equipment
 - General protective and hygienic measures:
Avoid contact with the eyes and skin.
 - Eye/face protection
Safety glasses
 - Skin protection
 - Protection of hands:
Only use chemical-protective gloves with CE-labelling of category III.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - Material of gloves
 - 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.
 - Respiratory protection:
Use suitable respiratory protective device in case of insufficient ventilation.
 - Thermal hazards
No further relevant information available.
- Environmental exposure controls
No further relevant information available.

SECTION 09: Physical and chemical properties
Information on basic physical and chemical properties
General Information

Physical state	Fluid
Form:	Fluid
Odour:	Characteristic
Odour threshold:	Characteristic
Melting point/freezing point:	< -50 °C
Boiling point or initial boiling point and boiling range	> 320 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	>= 100 °C
Auto-ignition temperature:	240 °C EU Method A.15
Ignition temperature:	Undetermined.
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	at 20 °C 23 mm ² /s OECD 114
Dynamic:	Not determined.
Solubility	
water:	at 20 °C 0,01 g/l at 20 °C 0,02 g/l
Partition coefficient n-octanol/water (log value)	>3,2 OECD 117
Vapour pressure:	at 20 °C 0,0094 mbar
Density and/or relative density	
Density:	Not determined.
Relative density	0,9450 - 0,9650 (20°C)
Vapour density	Not determined.
Particle characteristics	Not determined.
Other information	No further relevant information available.

(continued on page 6)

PRODUCT : PATCHOULI DM HE

(continued of page 5)

Surface tension:	62,4 mN/m	OECD 115
Explosive properties:	Non explosive	
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	
Other safety characteristics	Not determined.	
Evaporation rate	Not determined.	

SECTION 10: Stability and reactivity

1. Reactivity
No further relevant information available.
2. Chemical stability
Good stability at conditions of use mentioned in point 7 and 10
3. Possibility of hazardous reactions
Reacts with strong oxidising agents.
4. Conditions to avoid
Avoid temperatures near the flash point (see Section 9). Avoid contact with oxidizing agents.
5. Incompatible materials:
No further relevant information available.
6. Hazardous decomposition products:
No dangerous decomposition products known.

SECTION 11: Toxicological information

1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
 - Acute toxicity
Acute oral toxicity: Not classified according to CLP LD50 > 5000 mg/kg bw (Rat)
Acute dermal toxicity: Not classified according to CLP LD50 > 2000 mg/kg bw (Rabbit)
 - Skin corrosion / irritation
Non irritant (Rabbit, equivalent to OECD 404)
 - Serious eye damage / irritation
Non irritant (Rabbit, OECD 405)
Non-Corrosive (OECD 437, GLP)

(continued on page 7)

PRODUCT : PATCHOULI DM HE
(continued of page 6)

- Respiratory / skin sensitization
Skin sensitizer - SS1B (Mouse,OECD 429,GLP)
May cause an allergic skin reaction.
 - Germ cell mutagenicity
Non Mutagenic (OECD 471,GLP)
Non Mutagenic (Mouse,OECD 476,GLP)
No chromosomal aberration (Chinese hamster Ovary,OECD 473,GLP)
 - Carcinogenicity
Based on available data, the classification criteria are not met.
 - Reproductive toxicity
No adverse effect observed (Rat,Reproduction/developmental toxicity screening test OECD 421,Oral dietary,GLP)
 - STOT single exposure
Based on available data, the classification criteria are not met.
 - STOT repeated exposure
Based on available data, the classification criteria are not met.
 - Aspiration hazard
May be fatal if swallowed and enters airways.
 - Repeated dose toxicity
NOAEL=977 mg/kg pc/jour,Etude de toxicité orale de 28 jours à doses répétées (Rat, OCDE 407 et UE B.7, Alimentation par voir orale, BPL)
2. Information on other hazards
- Endocrine disrupting properties
None of the ingredients is listed.
 - Other information
No further relevant information available.

SECTION 12: Ecological information

1. Toxicity
Alpha-guaiene and Alpha-bulnesene, were found to have LC50 of 766mg/kg and 420mg/kg respectively following 14 -day exposure to earthworms. (EU Method C.8,GLP).
Terrestrial arthropod toxicity testing is not considered to be necessary as Patchouli, ext. is readily biodegradable and is not directly applied to soil. In addition, the chemical safety assessment demonstrates safe use of Patchouli, ext.
Terrestrial plant toxicity testing is not considered to be necessary as Patchouli, ext. is readily biodegradable and is not directly applied to soil. In addition, the chemical safety assessment demonstrates safe use of Patchouli, ext.
Soil microorganism toxicity testing is not considered to be necessary as Patchouli, ext. is readily biodegradable and is not directly applied to soil. In addition, the chemical safety assessment demonstrates safe use of Patchouli, ext.
- Aquatic toxicity:
PATCHOULI DM HE
LC50-96h (static): 5,7 mg/l (Fish) (OECD Guideline 203 (loading rate WAF)
EC50-48h (static): 11 mg/l (Daphnia) (OECD Guideline 202 (loading rate WAF)
EC50-72h (static): 73 mg/l (Alga) (OECD Guideline 201 (loading rate WAF)
2. Persistence and degradability
Readily biodegradable (OECD 301 F,Sludge,Water,GLP)
Toxic to aquatic life with long lasting effects.
3. Bioaccumulative potential
Bioaccumulation tests are waived based on the fact that the available information is deemed sufficient for classification purposes, the PBT assessment and the chemical safety assessment. Since a significant fraction of Patchouli ext. has partition coefficients greater than 5.7, the substance is considered to be potentially bioaccumulative for classification and PBT assessment purposes. Predicted worst-case BCF

(continued on page 8)

PRODUCT : PATCHOULI DM HE

(continued of page 7)

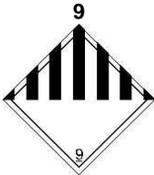
4. Mobility in soil
Adsorption coefficient Log Koc = 3.63 - 4.63 (OECD 121, GLP)
5. Results of PBT and vPvB assessment
 - PBT:
Not applicable.
 - vPvB:
Not applicable.
6. Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
7. Other adverse effects
No further relevant information available.

SECTION 13: Disposal considerations

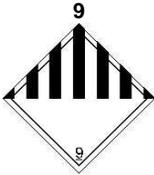
1. Waste treatment methods
 - Recommendation
Must be specially treated adhering to official regulations.
- Uncleaned packaging:
 - Recommendation:
Disposal must be made according to official regulations.

SECTION 14: Transport information

1. UN number or ID number
 - .ADR UN3082
 - .IMDG UN3082
 - .IATA UN3082
2. UN proper shipping name
 - .ADR 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EXTRACTS, LIQUID)
 - .IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EXTRACTS, LIQUID)
 - .IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EXTRACTS, LIQUID)
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.

(continued on page 9)

SAFETY DATA SHEET

According to 1907/2006/EC, Article 31, Latest Amendment

Version number: 7.0 (replaces version: 6.0)

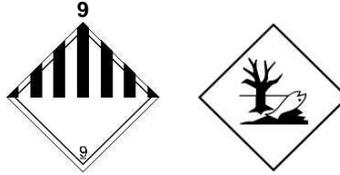
Revision: 10.07.2024

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PRODUCT : PATCHOULI DM HE

(continued of page 8)

. Label



4. Packing group

. ADR III

. IMDG III

. IATA III

5. Environmental hazards:

. Marine pollutant: Yes

. Danger code (Kemler): 90

. EMS Number: F-A,S-F

6. Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

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. (EXTRACTS, LIQUID), 9, III

SECTION 15: Regulatory information

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

• REGULATION (EC) No 1907/2006 ANNEX XVII

Conditions of restriction: 3

• 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.

• National regulations:

• Waterhazard class:

Water hazard class 2 (Self-assessment): hazardous for water.

2. Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

F

(continued on page 10)

PRODUCT : PATCHOULI DM HE
(continued of page 9)
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

1. Relevant phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
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.

2. Department issuing MSDS:

Legislation / Regulatory Affair Department

3. Abbreviations and acronyms:

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

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

4. Sources

RIFM Database

Suppliers Information

REACH registration dossier

IFRA/IOFI Labelling Manual

• Date of previous version:

* 09.01.2024

• Version number of previous version:

* 6.0

* Data compared to the previous version altered.