

## SDS for Rosemary var. Verbenone

### Section 1: Product name and Identification

**1.1 Product Name** Rosemary Oil (chemotype Verbenone)

**Trade names and synonyms** Rosmarinus officinalis flower oil (Syn: Rosmarinus officinalis leaf oil)

**EC-No:** 283-291-9

**CAS-No EU:** 8000-25-7

**CAS-No US:** 84604-14-8

**FEMA-No:** 2992

**1.2 Relevant identified uses of the substances or mixture** Fragrant and/or flavour substance

**1.3 Biological definition:** The volatile oil obtained by steam distillation from the leaves & fresh flowering tops of the shrubby perennial *Rosmarinus officinalis* L. (Fam. Labiatae).

#### 1.4 Details of the supplier of the safety data sheet

Company Name: Ayanda African Oils (Pty) Ltd

Company Address: Windermere Farm, Emoyeni, 3800, South Africa

Date Issued: 20/09/2018

Emergency Telephone Number: +27 353407008, +27 84 4071570, +27 84 6228811

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## Section 2: Hazard Identification

### 2.1 Classification of the substance or mixture: Classification according to Regulation (EC) No 1272/2008

Hazard class and Hazard category	Hazard Statement	
Flam. Liq. 3 ( FL 3 )	Flammable liquid and vapour	H226
Acute Tox. 4 ( ATI 4 )	Harmful if inhaled.	H332
Asp. Tox. 1 ( AH 1 )	May be fatal if swallowed and enters airways.	H304
Skin Sens. 1 ( SS 1 )	May cause an allergic skin reaction.	H317
Eye Dam. 1 ( EDI 1 )	Causes serious eye damage.	H318
STOT SE 2 ( STO-SE 2 )	May cause damage to organs.	H371
Aquatic Acute 1, Aquatic Chronic 1 ( EH A1,C1 )	Very toxic to aquatic life with long lasting effects	H410

Classification procedure established according to the current IFRA\* / IOFI\* Labelling Manual and all ingredients classified according to

Regulation (EC) n° 1272/2008



## 2.2 Classification according to EU Directives (EC 1272/2008)

Xn: Harmful

FL: Flammable Liquid

N: Dangerous for the environment

R10	Flammable
R41	Risk of serious damage to eyes
R43	May cause sensitisation by skin contact
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R68/22	Harmful: possible risk of irreversible effects if swallowed

## 2.3 Label elements (EC 1272/2008):





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## HAZARD STATEMENT(S)

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H371 May cause damage to organs.

H410 Very toxic to aquatic life with long lasting effects

## 2.4 Signal word

Danger

## 2.5 Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P264 - Wash face, hands and any exposed skin thoroughly after handling

P273 - Avoid release to the environment

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

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P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor, physician.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor, physician.

P330 - Rinse mouth

P391 – Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

## 2.7 ADDITIONAL HAZARD INFORMATION(S)

Not regulated

## 2.8 Other hazards

CMR\* substances not requiring classification: Methyl eugenol (< 0,50%) (See also section 11.6)

Allergens (according to cosmetic Directive (2003/15/EC): D-Limonene (<= 5,00%), Geraniol (<= 4,00%), Linalool (1,00 to 3,00%)



### Section 3: Composition/Information on ingredients

**3.1 - Type of product: Matter:** NCS, Natural Complex Substance (100% pure and natural), Essential Oil.

Agro-alimentary Organic product certified by Kiwa BCS Oko Germany.

### 3.2 - Dangerous ingredients

3.2.1 - Classification according to Regulation (EC) n° 1272/2008

Chemical name	EC-No	CAS-No	Weight percent	Classification (67/548/EEC)	GHS Classification (EC 1272/2008)
Alpha pinene	201-291-9	80-56-8	16%-24%	N, Xn, R43, R50/53, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Sens. 1, H317; Aquatic Acute 1, Aquatic  Chronic 1, H410
Camphor	200-945-0	76-22-2	13%-19%	Xn, R20, R68/22	Flam. Sol. 2, H228; Acute Tox. 4, H332; STOT SE 2, H371
Verbenone	201-292-4	80-57-9	8%-14%	None hazardous	None hazardous
Camphene	201-234-8	79-92-5	5%-10%	N, Xi, R36, R50/53	Flam. Sol. 2, H228; Eye Irrit. 2, H319; Aquatic Acute 1,





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					Aquatic Chronic 1, H410
Linalool	201-134-4	78-70-6	<= 3,00 %	Xi, R38	Skin Irrit. 2, H315
Cineol 1,8 (Eucalyptol)	207-431-5	470-82-6	<= 10,00 %	R10	Flam. Liq. 3, H226
Borneol	208-080-0	507-70-0	<= 4,00 %	F, R11	Flam. Sol. 2, H228
Beta pinene	204-872-5	127-91-3	<= 5,00 %	N, Xn, R43, R50/53, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Sens. 1, H317; Aquatic Acute 1, Aquatic Chronic 1, H410
D-Limonene	227-813-5	5989-27-5	3%-5%	N, Xi, R10, R38, R43, R50/53	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, Aquatic Chronic 1, H410
Alpha terpineol	202-680-6	98-55-5	<= 2,00 %	Xi, R38	Skin Irrit. 2, H315; Eye Irrit. 2, H319
Myrcene	204-622-5	123-35-3	<= 3,00 %	Xn, R52/53, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 3, H412
Para cymene	202-796-7	99-87-6	<= 2,00 %	N, Xn, R51/53, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411





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4-Terpinenol	209-235-5	562-74-3	<= 2,00 %	Xn, R22, R38	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319
Gamma terpinene	202-794-6	99-85-4	<= 3,00 %	Xn, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304
Terpinolene	209-578-0	586-62-9	<= 2,00 %	N, Xn, R51/53, R65	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411
Methyl eugenol	202-223-0	93-15-2	<=0,02	N, Xn, R22, R40, R51/53, R68	Acute Tox. 4, H302; Carc. 2, H351; Muta. 2, H341

For the full text of the Hazard Statements mentioned in this Section, See Section 16

### Section 4: First Aid measures

#### 4.1 Discription of First aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance

*Eye contact:* Wash eyes by normal first aid procedures for at least 15 minutes and consult a physician. If irritation persists or if skin lesions of any kind appear, consult an eye specialist, taking the product with you. If you wear contact lenses, rinse your eyes immediately. The lenses will probably fall out during rinsing. If not, remove them after rinsing. Do not put them back in. If you wear soft contact lenses, throw them away even if

new. Hard contact lenses may be used again after proper cleaning by an eyecare professional. In all cases, do not wear contact lenses after the accident without the advice of an eye specialist.







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*Skin contact:* Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If irritation persists or if skin lesions of any kind appear, seek medical advice.

*Ingestion:* Clean mouth with water, call a POISON CENTRE or physician. If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head low down to prevent aspiration into the lungs. If harmful effects persist or worsen, call a doctor. If patient is unconscious, place them in the lateral recovery position and call a doctor immediately. Make sure the area is well ventilated.

*Inhalation:* Inhalation may cause coughing, tightness of chest and irritation of the respiratory system. Remove person to ventilated area and follow normal first aid procedures. Perform artificial respiration if breathing has stopped

*Notes to physician:* Treat symptomatically

### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in labelling see section 2.2 and/or section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available Contact a poison specialist immediately if large quantities have been ingested or inhaled.



## **5. Fire-fighting measures**

### **5.1 Extinguishing media**

*Suitable extinguishing media:* Use alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a direct water jet.

### **5.2 Special hazards arising from the substances or mixtures**

Forms carbon monoxide and/or dioxide upon burning. Possible production of toxic fumes under fire.

### **5.3 Unusual fire and Explosion Hazards**

None, material is not pyrophoric, does not react with water, not an oxygen donor, material is shock stable

### **5.4 Advice for fire-fighters**

Cool container exposed to the flame with water fog. Fire fighters should wear positive pressure self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Do not attempt to fight the fire with water, which tends to feed rather than smother the flames. Essential oils have the ability to float on water and this causes the fire to propagate more quickly. To put out an essential oil-based fire in its early stages, use a specific ABC dry powder fire extinguisher (or equivalent). Small fires can be smothered by covering with earth, sand or a blanket.

## **6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.



## **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains, water courses or onto the ground.

See Section 12 for additional Ecological Information

## **6.3 Methods and materials for containment and cleaning up**

Small spills can be wiped up with paper rags (placed in closed metal waste container). Large spill: contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Large spills can also be collected with non combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and placed in metal container for disposal according to local/National regulations (see section 13).

## **7. Handling and Storage**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Ensure adequate ventilation. If the ventilation system is inadequate, wear an appropriate respiratory protection device. Handle in accordance with good industrial hygiene and safety practise.

For precautions see section 2.5



### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place, keep container tightly closed in a dry and well-ventilated place. Store away from direct sunlight.

Store in stainless steel container, opaque glass container or Fluorinated HDPE container.

Stabilizers : Store under a nitrogen blanket if possible.

Air and light sensitive.

Storage class (TRGS 510): Combustible liquids

### **7.3 Environment**

Avoid discharge into the environment. Work in containment area. Use an appropriate container to avoid

contaminating the surrounding environment.

### **7.4 Specific end use(s)**

Apart from the mentioned in section 1.2 no other specific uses are stipulated

## **Section 8. Exposure controls/ Personal protection**

### **8.1 Control parameters**

#### **8.1.1 - Occupational exposure limits (INRS\*, ND2098, Directive 91/322/EC and 2000/39/EC)**

Not regulated. No specific exposure limits for this product.

#### **8.1.2 - Biological limit values (database of chemicals GESTIS: [www.dguv.de](http://www.dguv.de))**

Not regulated. No biological limit values established for this product.



## 8.2 Exposure control

Engineering measures: Ensure adequate ventilation, especially in confined areas

*Eye protection:* Tightly fitting safety goggles

*Hand protection:* Protective gloves

*Skin and body protection:* Wear suitable protective clothing

*Respiratory protection:* In cases of insufficient ventilation wear suitable respiratory equipment, otherwise none under normal use conditions

*Hygiene measures:* Handle in accordance with good industrial hygiene and safety practise

**Environmental exposure controls** The product should not be allowed to enter drains, water courses or the soil

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: Colourless to very pale yellow
b) Odour	Characteristic, fresh, camphorated
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	+43 °C (closed cup)
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available





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k) Vapour pressure	
l) Vapour density	Greater than air
m) Water solubility	insoluble
n) Partition coefficient: noctanol/water	No data available
o) Auto-ignition temperature	No data available
p) Decomposition temperature	No data available
q) Viscosity	No data available
r) Explosive properties	No data available
s) Oxidizing properties	No data available
t) Specific gravity (@ 20°C)	0,895 to 0,925
u) Refractive Index (@ 20°C)	1.450 TO 1.474
v) Optical rotation (@ 20°C)	+25 TO +40

#### Main ingredients

Alpha pinene (16,00 to 24,00%)

Camphor (13,00 to 19,00%)

Bornyl acetate (8,00 to 15,00%)

Camphene (5,00 to 10,00%)

Verbenone (8,00 to 14,00%)

1,8 Cineole (5,00 to 10,00%)



## Section 10: Stability and reactivity:

<b>10.1 Reactivity</b>	Material does not react with water
<b>10.2 Chemical stability</b>	Stable under normal circumstances
<b>10.3 Possibility of hazardous reactions:</b>	No data available
<b>10.4 Conditions to avoid</b>	Heat, flames and sparks.  Exposure to air or moisture over prolonged periods
<b>10.5 Incompatible materials</b>	Strong oxidising agents and PVC
<b>10.6 Hazardous decomposition products</b>	May produce toxic gases (hydrocarbons, carbon oxide) upon burning

## Section 11: Toxicological information

### Potential health effects

<i>Inhalation</i>	None known
<i>Eye contact</i>	No significant effects or critical hazards.
<i>Skin contact</i>	No significant effects or critical hazards. May cause an allergic skin reaction
<i>Ingestion</i>	
<i>Germ cell mutagenicity</i>	No significant effects or critical hazards.
<i>Aspiration hazard</i>	May be fatal if swallowed and enters airways.



## **Information on toxicological effects**

Acute toxicity:

LD50 Oral – Rat –  $\geq 5\,000$  mg/kg

LD50 Dermal – Rabbit – 5000 mg/kg

## **Carcinogenicity**

Contains Methyl Eugenol less than 0,02%

## **Reproductive toxicity**

No significant effects or critical hazards.

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available





## Section 12: Ecological information

### Toxicity

Danger to the aquatic environment according to Regulation (EC) n° 1272/2008



Very toxic to aquatic life with long lasting effects.

### Aquatic toxicity

Aquatic toxicity	Effect dose	Exposure time	Results	Methods
Acute fish toxicity	LC50	96h	N.A.	/
Acute daphnia toxicity	EC50	48h	25,20 mg/l/48h	Acute immobilisation test
Acute algae toxicity	IC50	72h	N.A.	/

### Persistence and degradability

No data available



**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

To our knowledge, no such assessment has been carried out on this product to date.

**Other adverse effects**

Water hazardous class (WGK\*) according to Annex 2 of the German directive Hazardous Materials (No. carac.: 814; 17.05.1999 organics materials): 2

**Section 13 Disposal considerations**

**Product**

Small spills can be wiped up with paper rags (placed in closed metal waste container). Large spill: contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Large spills can also be collected with non combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and placed in metal container for disposal according to local/National regulations. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solution to a licensed disposal company.



## Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal

## Section 14 Transport information

### Sea (IMDG)

Proper shipping name	Extract, aromatic, Liquid
IMDG Class	3
UN/ID No	1169
Packing group	III
Marine pollutant	Yes

### Land (ADR)

Proper shipping name	Extract, aromatic, Liquid
ADR/RID Class	3
UN/ID No	1169
Packing group	III

### Air (IATA)

ICAO/IATA Class	1169
Proper shipping name	Extract, aromatic, Liquid
ICAO/IATA Class	3
UN/ID No	1169
Packing group	III





### **Additional information**

Customs rate code : 3301 29 41 00

### **Section 15 Regulatory information**

#### **EU DIRECTIVES**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive

1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

#### **STATUTORY INSTRUMENTS**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

#### **APPROVED CODE OF PRACTICE**

Classification and Labelling of Substances and Preparations Dangerous for Supply.

#### **GUIDANCE NOTES**

Workplace Exposure Limits EH40.

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## Legend

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ADR/RID:** Agreement on Dangerous Goods by Road / Regulations concerning the Intl Transport of Dangerous Goods by Rail

**ATEX:** European explosive atmospheres directive

**CMR:** Carcinogenic, Mutagenic, Reprotoxic

**DNEL:** Derived No Effect Level

**IATA-DGR:** International Air Transport Association - Dangerous Goods Regulations

**IFRA:** International Fragrance Association

**IMDG:** International Maritime Dangerous Goods

**GC:** Gas Chromatography

**PBT:** Persistent Bioaccumulating Toxicants

**PNEC:** Predicted No Effect Concentration

**STOT:** Specific Target Organ Toxicity

**vPvB:** Very Persistent and Very Bioaccumulative substance

**WGK:** Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)



## Section 16

Shelf life: 48 months when stored within advised conditions

**Issuing date: 20/09/2018**

**Revision Date:**

**Revision Note: not applicable**

### Disclaimer

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

