



Safety Data Sheet dated 12/6/2017, version 1

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

### 1.1. Product identifier

Identification of the substance:

Trade name: BLACK PEPPER ESSENTIAL OIL

Trade code: OL.ES.107

CAS number: 84929-41-9

EC number: 284-524-7

The transition time according to REACH Regulation, Article 23 is still not expired.

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

Recommended use:

Raw material for fragrances, cosmetics, food

Industrial uses

### 1.3. Details of the supplier of the safety data sheet

Company:

ESPERIS SPA

St. Ambrogio Binda 29

20143 MILANO (ITALY)

Tel. +39 02 89122219

Competent person responsible for the safety data sheet:

info@esperis.it

### 1.4. Emergency telephone number

Antipoison Center - Hospital Name 1 - City - Telephone nbr. (availability information)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture


EC regulation criteria 1272/2008 (CLP)


 Warning, Flam. Liq. 3, Flammable liquid and vapour.

 Warning, Skin Irrit. 2, Causes skin irritation.

 Warning, Eye Irrit. 2, Causes serious eye irritation.

 Warning, Skin Sens. 1, May cause an allergic skin reaction.

 Warning, Aquatic Acute 1, Very toxic to aquatic life.

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

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

## Safety Data Sheet

### BLACK PEPPER ESSENTIAL OIL

H226 Flammable liquid and vapour.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H317 May cause an allergic skin reaction.  
 H400 Very toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P370+P378 In case of fire: Use ... to extinguish.

**Special Provisions:**

None

**Contains**

(R)-P-MENTA-1,8-DIENE  
 DELTA TRE CARENE  
 BETA PINENE: May produce an allergic reaction.  
 ALPHA PINENE: May produce an allergic reaction.

**Special provisions according to Annex XVII of REACH and subsequent amendments:**

None

**2.3. Other hazards**

vPvB Substances: None - PBT Substances: None

**Other Hazards:**

No other hazards












### SECTION 3: Composition/information on ingredients













**3.1. Substances**

N.A.

**3.2. Mixtures**

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 20% - < 30%	BETA CARYOPHYLLENE	CAS: 87-44-5	 3.10/1 Asp. Tox. 1 H304
		EC: 201-746-1	 3.2/2 Skin Irrit. 2 H315
>= 20% - < 30%	DELTA TRE CARENE	CAS: 13466-78-9 EC: 236-719-3	 2.6/3 Flam. Liq. 3 H226
			 3.10/1 Asp. Tox. 1 H304
			 4.1/A1 Aquatic Acute 1 H400
			 4.1/C2 Aquatic Chronic 2 H411
			4.1/C3 Aquatic Chronic 3 H412
			 3.2/2 Skin Irrit. 2 H315
>= 20% - < 30%	(R)-p-MENTHA-1,8-DI ENE	Index number: 601-029-00-7 CAS: 5989-27-5 EC: 227-813-5 REACH No.: 01-21195292	 3.4.2/1 Skin Sens. 1 H317
			 2.6/3 Flam. Liq. 3 H226
			 3.10/1 Asp. Tox. 1 H304
			 3.2/2 Skin Irrit. 2 H315

		23-47-xxxx	 3.4.2/1 Skin Sens. 1 H317  4.1/A1 Aquatic Acute 1 H400  4.1/C1 Aquatic Chronic 1 H410
>= 7.5% - < 10%	BETA PINENE	CAS: 127-91-3 EC: 204-872-5	 2.6/3 Flam. Liq. 3 H226  4.1/C2 Aquatic Chronic 2 H411  3.10/1 Asp. Tox. 1 H304  3.2/2 Skin Irrit. 2 H315  3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
>= 5% - < 7.5%	ALPHA PINENE	CAS: 80-56-8 EC: 201-291-9	 2.6/3 Flam. Liq. 3 H226  3.10/1 Asp. Tox. 1 H304  3.2/2 Skin Irrit. 2 H315  3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

In case of fire: Use ... to extinguish.

Extinguishing media which must not be used for safety reasons:

## Safety Data Sheet

### BLACK PEPPER ESSENTIAL OIL

- None in particular.
- 5.2. Special hazards arising from the substance or mixture  
Do not inhale explosion and combustion gases.  
Burning produces heavy smoke.
- 5.3. Advice for firefighters  
Use suitable breathing apparatus .  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Move undamaged containers from immediate hazard area if it can be done safely.

---

#### SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures  
Wear personal protection equipment.  
Remove all sources of ignition.  
Remove persons to safety.  
See protective measures under point 7 and 8.
- 6.2. Environmental precautions  
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Retain contaminated washing water and dispose it.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.  
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

---

#### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
  
Keep the product in dry and cool place  
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.  
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Cool and adequately ventilated.
- 7.3. Specific end use(s)  
None in particular

---

#### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
DELTA TRE CARENE - CAS: 13466-78-9

ACGIH - TWA(8h): 20 ppm - Notes: DSEN, A4 - Lung irr  
BETA PINENE - CAS: 127-91-3  
ACGIH - TWA(8h): 20 ppm - Notes: DSEN, A4 - Lung irr  
ALPHA PINENE - CAS: 80-56-8  
ACGIH - TWA(8h): 20 ppm - Notes: DSEN, A4 - Lung irr  
DNEL Exposure Limit Values  
N.A.  
PNEC Exposure Limit Values  
N.A.  
8.2. Exposure controls  
Eye protection:  
Eye glasses with side protection.  
Protection for skin:  
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.  
Protection for hands:  
Butyl caoutchouc (butyl rubber).  
Respiratory protection:  
Not needed for normal use.  
Thermal Hazards:  
None  
Environmental exposure controls:  
None  
Appropriate engineering controls:  
None

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	liquid clear verde light	--	--
Odour:	N.A.	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	50 ° C	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	0.865 - 0.904	--	--
Solubility in water:	insoluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition	N.A.	--	--

temperature:			
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

## 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

**SECTION 10: Stability and reactivity**

## 10.1. Reactivity

Stable under normal conditions

## 10.2. Chemical stability

Stable under normal conditions

## 10.3. Possibility of hazardous reactions

None

## 10.4. Conditions to avoid

Stable under normal conditions.

## 10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

## 10.6. Hazardous decomposition products

None.

**SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Toxicological information of the product:

BLACK PEPPER ESSENTIAL OIL - CAS: 84929-41-9

## a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat &gt; 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit &gt; 5000 mg/kg

Toxicological information of the main substances found in the product:

(R)-p-MENTHA-1,8-DIENE - CAS: 5989-27-5

## a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat &gt; 2000 mg/kg

ALPHA PINENE - CAS: 80-56-8

## a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 3700 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit &gt; 5000 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;

- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

---

**SECTION 12: Ecological information**

- 12.1. Toxicity
  - Adopt good working practices, so that the product is not released into the environment.
  - (R)-p-MENTHA-1,8-DIENE - CAS: 5989-27-5
  - a) Aquatic acute toxicity:
    - Endpoint: EC50 = 0.36 mg/l - Duration h: 48 - Notes: Daphnia magna
  - ALPHA PINENE - CAS: 80-56-8
  - a) Aquatic acute toxicity:
    - Endpoint: LC50 = 0.28 mg/l - Duration h: 96
- 12.2. Persistence and degradability
  - N.A.
- 12.3. Bioaccumulative potential
  - N.A.
- 12.4. Mobility in soil
  - N.A.
- 12.5. Results of PBT and vPvB assessment
  - vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
  - None

---

**SECTION 13: Disposal considerations**

- 13.1. Waste treatment methods
  - Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

---

**SECTION 14: Transport information**

- 14.1. UN number
  - ADR-UN number: 1169
  - IATA-Un number: 1169
  - IMDG-Un number: 1169
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
  - ADR-Class: 3
  - IATA-Class: 3
  - IMDG-Class: 3
- 14.4. Packing group
  - ADR-Packing Group: III
  - IATA-Packing group: III
  - IMDG-Packing group: III
- 14.5. Environmental hazards
- 14.6. Special precautions for user
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
  - N.A.

---

**SECTION 15: Regulatory information**

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Dir. 98/24/EC (Risks related to chemical agents at work)
  - Dir. 2000/39/EC (Occupational exposure limit values)
  - Regulation (EC) n. 1907/2006 (REACH)



Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)  
Regulation (EC) nr 648/2004 (detergents).  
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1  
Product belongs to category: P5c, E1, E2

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

### SECTION 16: Other information

Full text of phrases referred to in Section 3:

H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H226 Flammable liquid and vapour.  
H400 Very toxic to aquatic life.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.  
H317 May cause an allergic skin reaction.  
H410 Very toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
---	--------------------------



Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.