

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier  
 product trade name: Bergamot Essential Oil Italy - PA-100PC  
 REACH / CLP: all substances (ingredients) are preregistered / notified or registered.
- 1.2 Relevant identified uses of the mixture and uses advised against  
 relevant uses: odour agent / flavouring agent - ingredient for industrial manufacturing.  
 uses advised against: not for personal use in this form or concentration.

### 2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture  
**Reg. (EC) No 1272/2008:**

	Asp. Tox. 1	Aquatic Chronic 1	Skin Irrit. 2	Skin Sens. 1	Flam. Liq. 3
<b>CLP</b> hazard categories:	AH1	EHC1	SCI2	SS1	FL3
hazard statements:	H304	H410	H315	H317	H226
hazard pictograms:	GHS08	GHS09	GHS07		GHS02
<b>DSD</b> Dir. 1999/45/EC - 67/548/EEC:	harmful	dangerous for the environment	irritant	sensitizing	flammable
<b>DPD</b> risks phrases:	R65	R50/53	R38	R43	R10
symbols:	Xn	N		Xi	-

- 2.2 Label elements  
 hazard pictograms:



signal word: danger  
 hazard statements: H304, H410, H315, H317, H226  
 precautionary statement: P210, P241, P262, P273, P280, P301/310, P303/361/353, P331, P405, P501

- 2.2.1 Additional information  
 for full text of relevant R phrases, hazard statements and precautionary statements see section 16 (d).

- 2.3 Other hazards  
 with the presence of various furocoumarins the product may become phototoxic effects (skin).

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Mixture

origin & production process: obtained from Italian citrus essential oils & citrus by-products (mainly from *Citrus bergamia*, RISSO et POITEAU) & completed with natural identical substances.  
 chemical identification & grade: 45% Natural Complex Substance / 55% Natural Identical Substances  
 EU chemical name: for 45% Citrus, ext. / for 55% confidential ingredients  
 EC number: for 45% 304-454-3 / for 55% confidential ingredients  
 CAS number (EC inventory): for 45% 94266-47-4 / for 55% confidential ingredients

#### 3.1.1 Mixture: main hazardous constituents & DSD/CLP classification

common name	%	CAS	EINECS	DSD classification	CLP classification
limonene	35÷55	5989-27-5	227-813-5	Xn, N - R38,43,50/53,65,10	AH1, EHC1, FL3, SCI2, SS1
linalyl acetate	10÷20	115-95-7	204-116-4	N - R51/53	FL4, SCI3, EHA2
linalool	8÷18	78-70-6	201-134-4	Xi - R38	FL4, SCI2, ATO5, EHA3
β-pinene	4÷11	127-91-3	204-872-5	Xn, N - R10,43,50/53,65	AH1, EHC1, FL3, SCI3, SS1
Y-terpinene	2÷7	99-85-4	202-794-6	Xn - R10,65	AH1, FL3, SCI3, ATO5

#### 3.1.2 Additional information

for full text of relevant R phrases & hazard statements see section 16 (d & d-1).

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

inhalation: move to fresh air for at least 10 minutes, in case of complaints seek medical attention.  
contact with the skin: remove contaminated clothing and wash with water and soap the contaminated part - make sure you have eliminated the contamination - in case of complaints seek medical attention.  
contact with the eyes: abundant eye-wash for 15 minutes with pure water, make sure you have eliminated the contamination, in case of complaints seek medical attention.  
ingestion: ask **immediately** medical assistance - mouth washing with water and **do not provoke vomiting**.

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

symptoms: inhalation: can cause slight headache - contact: can cause bloodshot eyes - can cause slight skin rash.  
acute and delayed effects: no post-disorder effects are reported.

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

immediate medical assistance: see point 4.1.  
immediate/special treatment: see point 4.1.  
first aid specific means: eye wash fountain / safety shower should be available in the work area.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

suitable extinguishing media: SMALL FIRE: use CO<sub>2</sub>, foam, dry powder - LARGE FIRE: use water spray or fog - cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.  
unsuitable extinguishing media: pressurized water jet.

### 5.2 Special hazards arising from the mixture

vapours may form explosive mixture with air - in case of fire, the following can be released: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), smoke, soot.

### 5.3 Advice for firefighters

standard procedure for chemical fires - spray extinguishing media to base of flames - use adequate protections for respiratory apparatus, avoid vapour inhalation.

## 6. ACCIDENTAL RELEASE MEASURES

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

for non-emergency personnel: in an emergency (i.e. unintentional important release of the product in enclosed space) respiratory protection (Gas filter A, Colour code brown: consider the maximum duration for wear) must be worn. Use insulating device for respiratory protection with an independent air supply in circumstances which are unclear - use adequate protections solvent resistant: security shoes, bodysuit, gloves and protective goggles (see point 8).  
for emergency responders: as per non-emergency personnel.  
emergency procedures: remove any ignition source and ensure adequate ventilation in working areas following accidental releases.

### 6.2 Environmental precautions

keep away from drains - keep away from surface and ground water.

### 6.3 Methods and material for containment and cleaning up

keep away from heat and use non-combustible absorbing sawdust (sand, specific binder). Refer to point 13 for the appropriate methods of waste treatment.

### 6.4 Reference to other sections

see point 4, 8 & 13

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

safe handling: during handling keep original container closed - avoid contact with skin and eyes - wear adequate protective gloves and eye/face protection - avoid any sources of ignition - avoid exposing to high temperature during processing - maintain adequate local and general ventilation where product is handled.  
hygiene at work: do not ingest or apply to the skin as such - no smoking - remove contaminated clothing - good personal washing routines should be followed - if at risk of contamination, foods, beverages and other articles of consumption must not be stored or consumed at the work areas.

### 7.2 Conditions for safe handling, including any incompatibilities

container: to be stored in stainless steel drums, preferably under inert atmosphere (nitrogen) with minimum head space, protected from day-light. • **take note**: the container used during transportation must be considered only as a temporary container and it must not be considered in any case adequate for medium or long term warehousing.  
conditions: stored in a dry, aerated place, away from any heat source and ignition source.  
temperature: from 5 °C and 20 °C.

### 7.3 Specific end uses

use as odour agent / flavouring agent - the information of this section are not related to the use of the product in combination with any other material or any other process altering its characteristics.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Control parameters

occupational exposure limit: N/D

### 8.2 Exposure control

a good basic standard of occupational hygiene is to be implemented (see also section 7).

#### 8.2.1 Appropriate engineering controls

where appropriate, use closed system to transfer and process this material - if appropriate, isolate mixing rooms and other areas where this material is used or openly handled.

#### 8.2.2 Individual protection measures, such as personal protective equipment



eye/face protection: protective goggles with built-in-frame tested to EN166 (should be checked regularly).



skin protection - hand: suitable gloves tested to EN374 (should be checked regularly) - always use with clean, dry hands.

skin protection - other: protective work clothing solvent resistant (should be checked regularly).

respiratory protection: not necessary in adequate local with general ventilation - avoid breathing vapors.

thermal hazards: none

#### 8.2.3 Environmental exposure controls

the usual precautions in handling chemicals have to be observed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

appearance:	liquid - yellow / greenish
odour:	citrus - bergamot
odour threshold:	N/D
pH:	N/D
initial boiling point (& range):	N/D
melting point/freezing point:	N/D
flash point:	~57 °C (136 °F)
evaporation rate:	N/D
upper/lower explosive limits:	N/D
vapour pressure:	N/D
vapour density:	N/D
relative density $d_{4}^{20}$ :	0.864÷0.884
solubility:	in alcohol & other oils / negligible in H <sub>2</sub> O
partition coefficient n-octanol/H <sub>2</sub> O:	N/D
auto-ignition temperature:	N/D
decomposition temperature:	N/D
viscosity:	N/D
explosive properties:	none
oxidizing properties:	none

### 9.2 Other information

see specifications for other physical and/or chemical data.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

product not reactive with water - product not reactive if used according to storage & handling conditions & identified uses (see subsection 1.2).

### 10.2 Chemical stability

product stable if used according to storage & handling conditions & identified uses (see subsection 1.2). • **shelf life:** 365 days, as per recommended storage & handling conditions (see point 7).

### 10.3 Possibility of hazardous reactions

none if used according to storage & handling conditions & identified uses (see subsection 1.2).

### 10.4 Conditions to avoid

avoid exposure to heat.

### 10.5 Incompatible materials

highly oxidizing agents.

### 10.6 Hazardous decomposition products

no known hazardous decomposition products under recommended storage & handling conditions - in case of combustion: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

this preparation has not been subjected to toxicological testing as an entity but has been blended from materials with known toxicological data and hazard classification (RIFM). In view of the difficulty of using current standard toxicological evaluation techniques to predict potential hazards arising from unforeseeable potentiation, this preparation should be considered and handled as if it displayed health hazards and treated in consequence with all possible precaution.

skin corrosion/irritation:	hazard statement: H315 causes skin irritation.
skin sensitisation:	hazard statement: H317 may cause an allergic skin reaction.
aspiration hazard:	hazard statement: H304 may be fatal if swallowed and enters airways.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

this preparation has not been subjected to ecotoxicological testing as an entity but has been blended from materials with known ecotoxicological data and hazard classification (RIFM). In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact on vulnerable parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards and treated in consequence with all possible precaution.

aquatic life:	hazard statement: H410 very toxic to aquatic life with long lasting effects.
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### 12.2 Persistence and degradability

N/D

### 12.3 Bioaccumulative potential

hazard statement: H410 very toxic to aquatic life with long lasting effects.

### 12.4 Mobility in soil

N/D

### 12.5 Results of PBT and vPvB assessment

this product (or all its ingredients) not classified as PBT or vPvB / CMR.

### 12.6 Other adverse effects

N/D

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

the containers used for this product must completely empty before disposal. Dispose product and/or contaminated packaging in accordance with federal, state and local environmental control regulations - disposal through the waste water is illegal.

## 14. TRANSPORT INFORMATION

### 14.1 IMDG - ICAO/IATA - ADR/RID



hazard symbols:	for IMDG-ADR/RID: fish and tree - flame
	for ICAO/IATA: flame



UN number:	1169
UN proper shipping name:	Extracts, aromatic, liquid
transport hazard class:	Class 3
packing group:	III
environmental hazards:	marine pollutant
harmonized number:	3302909000 (EU TARIC)

special precautions for user:	this product contains constituents flammables & dangerous for the environment - in case of pouring out, make sure to label new package accordingly, reproducing original label with relevant symbols.
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## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the mixture

this product (or all its ingredients) is in according to applicable relevant EU Community provisions; for other locations verify if may be in use other regional or national regulations for the same.

#### 15.1.1 Dir. 67/548/EEC - Dir 1999/45/EC: classification & labeling



hazard symbols:	Xn, N
R phrases:	R10, R38, R43, R50/53, R65
S phrases:	S24, S37, S61, S62



#### 15.1.2 Additional information

for full text of relevant R & S phrases see section 16 (d).

#### 15.2 Chemical Safety Assessment

N/D

## 16. OTHER INFORMATION

### a Revision

BM01 - April 2011 - no changes up to print date.

### b Legend

**CLP:** Regulation (EC) No 1272/2008 - **DSD:** Dangerous Substances Directive (67/548/EEC) - **DPD:** Dangerous Preparations Directive (1999/45/CE) - **Xi:** irritant - **Xn:** harmful - **N:** dangerous

### c Literature references and source of data

RIFM - FEMA database

### d List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements (section 2)

**R10** flammable  
**R38** irritating to skin  
**R43** may cause sensitization 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  
**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  
**H410** very toxic to aquatic life with long lasting effects  
**S24** avoid contact with skin  
**S37** wear suitable gloves  
**S61** avoid release to the environment. refer to special instructions / safety data sheets  
**S62** if swallowed, do not induce vomiting: seek medical advice immediately and show this container or label  
**P210** keep away from heat/sparks/open flames/hot surfaces – no smoking  
**P241** use explosion-proof electrical/ventilating/lighting/equipment  
**P262** do not get in eyes, on skin or on clothing  
**P273** avoid release to the environment  
**P280** wear protective gloves/eye protection/face protection  
**P301/310** if swallowed: immediately call a poison center or doctor/physician  
**P303/361/353** if on skin (or hair): remove/take off immediately all contaminated clothing. rinse skin with water/shower  
**P331** do not induce vomiting  
**P405** store locked up  
**P501** dispose product/container in accordance with applicable regulations

### d-1 List of relevant R phrases & hazard statements (section 3)

**R52/53** harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
**H227** combustible liquid  
**H303** may be harmful if swallowed  
**H316** causes mild skin irritation  
**H401** toxic to aquatic life  
**H402** harmful to aquatic life

### e Inventories & other

	<b>CAS</b>	<b>ID</b>	
<b>EINECS</b>	various	various	
<b>TSCA</b>	various	-	
<b>IECSC</b>	various		
<b>KECI</b>	various	various	
<b>DSL</b>	various	-	
<b>AICS</b>	various	-	
<b>ENCS - ISHL</b>	various	-	
<b>NZIOC</b>	various	-	
<b>PICCS</b>	various	-	
<b>FDA</b>	-	various	
<b>CE</b>	-	various	
<b>FEMA</b>	various	various	
<b>RIFM</b>	various	various	
<b>IFRA (classification)</b>	-	-	according to "Labeling Manual 2010 Attachment V"
<b>IFRA (standards)</b>	-	-	in conformity up to 47 <sup>th</sup> Amendment
<b>WGK</b>	various	various	Class 2 ("read across" with Bergamot, ext.)
<b>REG. (EC) 1907/2006</b>	various	-	preregistered or registered substances
<b>REG. (EC) 1223/2009</b>	-	-	in conformity up to 658/2013/EU Amendment
<b>REG. (EC) 1334/2008</b>	-	-	in conformity

### f Further information

the information on this SDS is correct to the best of our knowledge, covering the involved product at the date of its publication. They apply to the product as such as per the described specifications. The information are not related to the use of the product in combination with any other material or any other process altering its characteristics. The end user should apply to the existing normative and laws covering the use of the product, the hygiene and security at work. The container used during transportation must be considered only as a temporary container and it must not be considered in any case adequate for medium or long term warehousing. Upon receipt, our product must be stored as soon as possible in compliance with point 7.2 of this SDS. The information given in this SDS is in accordance with the Reg. (EU) No 453/2010 Annex I, Reg. (EC) No 1907/2006 and Reg. (EC) No 1272/2008.