

## Material Safety Data Sheet

### Organic Essential Oil of Neroli from Morocco

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#### 1/ Identification of the substance and the company

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##### 1.1 Identification of the substance

Trade name : Neroli  
Botanical name : *Citrus aurantium L. ssp. Amara var. pumilia*  
INCI name : CITRUS AURANTIUM AMARA FLOWER OIL  
Geographical origin : Morocco

N° CAS TSCA : 8016-38-4  
N° CAS EINECS : 72968-50-4  
N° EINECS : 277-143-2

N° FEMA : 2771  
N° FDA : 182.20  
N° CoE : 136n

##### 1.2 Use of the substance

Fragrance and flavour

##### 1.3 Identification of the company

Company name: IN-LUSTRYS  
Address : 294 Montée des Chênes - LaTuilière  
83136 NEOULES (France)  
Phone number : +33 (0)4 98 05 82 28  
Email : qualite@inlustrys.com

##### 1.4 Emergency telephone number

ORFILA Organism (poison control center): +33 (0)1 45 42 59 59  
Website : <http://www.centres-antipoison.net>

## 2.1 Classification of the substance

### Classification according to Regulation (EC) No 1272/2008

Hazard statements:

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  
H318: Causes serious eye damage  
H410: Very toxic to aquatic life with long lasting effects

### Classification according to 67/548/EEC and 1999/45/EC

N: Dangerous for the environment  
Xn: Harmful

Risk statements:

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.

Safety statements:

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.

## 2.2 Label elements

Signal word: Danger

Labelling:



GHS02: Flammable



GHS05: Corrosion



GHS07: Acute toxicity, irritation, dermal sensitizer, narcotic effects



GHS08: Health hazards



GHS09: Hazardous to aquatic environment

Hazard statements:

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  
H318: Causes serious eye damage  
H410: Very toxic to aquatic life with long lasting effects

Precautionary statements:

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking

P273: Avoid release to the environment

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

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P302+352: IF ON SKIN: Wash with soap and water

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P501: Dispose of contents/container to ...

**2.3 Other hazards**

CMR components:

none

Allergens:

linalool ( $\leq 45\%$ ), d-limonene ( $\leq 20\%$ ), geraniol ( $\leq 5\%$ ), farnesol ( $\leq 5\%$ ), citral: geraniol+neral ( $\leq 0.2\%$ ), citronellol ( $0.2\%$ )

3/ Composition / information on ingredients

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Hazardous components:

Constituent Name	Identification		Concentration %
	CAS #	EINECS #	
Alpha-Terpineol	98-55-5	202-680-6	$\leq 8\%$
Beta-Pinene	127-91-3	204-872-5	$\leq 20\%$
D-Limonene	5989-27-5	227-813-5	$\leq 20\%$
Farnesol	4602-84-0	225-004-1	$\leq 5\%$
Geraniol	106-24-1	203-377-1	$\leq 5\%$
Geranyl acetate	105-87-3	203-341-5	$\leq 5\%$
Linalool	78-70-6	201-134-4	$\leq 45\%$
Linalyl acetate	115-95-7	204-116-4	$\leq 15\%$
Myrcene	123-35-3	204-622-5	$\leq 4\%$
Nerol	106-25-2	203-378-7	$\leq 3\%$
Trans-Beta-Ocimene	13877-91-3	237-641-2	$\leq 15\%$
Trans-Nerolidol	7212-44-4	230-597-5	$\leq 10\%$

**Classification:**

Constituent name	Labelling	Hazard statements	Signal word	Risk statements
Alpha-Terpineol	GHS07	H227, H303, H315, H319, H401	Warning	Xi, R38
Beta-Pinene	GHS02, GHS07, GHS08, GHS09	H226, H304, H315, H317, H400, H410	Danger	Xn, N, R10, R43, R50/53, R65
D-Limonene	GHS02, GHS07, GHS08, GHS09	H226, H304, H315, H317, H400, H410	Danger	Xi, N, R10, R38, R43, R50/53
Farnesol	GHS07	H315, H317, H319	Warning	Xi, R36/38
Geraniol	GHS05, GHS07	H303, H315, H317, H318, H402	Danger	Xi, R38, R41, R43
Geranyl acetate	GHS07	H315, H317, H401, H402	Warning	N, R51/53
Linalool	GHS07	H227, H303, H315, H319, H402	Warning	Xi, R38
Linalyl acetate	GHS07	H227, H315, H319, H402	Warning	N, R51/53
Myrcene	GHS02, GHS07, GHS08	H226, H304, H315, H319	Danger	Xn, R52/53, R65
Nerol	GHS07	H303, H315, H317, H319, H402	Warning	Xi, R38
Trans-Beta-Ocimene	GHS02, GHS08	H226, H304, H316	Danger	Xn, R65
Trans-Nerolidol	GHS07, GHS09	H319, H400, H410	Warning	N, R50/53

**4/ First-aid measures****In the event of skin contact**

Take off contaminated clothing.  
Wash immediately with soap and plenty of water.  
If irritation, get medical advice.

**In the event of eye contact**

Flush immediately with plenty of flowing water for at least 10 minutes, holding eyelids apart.  
Consult an ophthalmologist.

**In the event of ingestion**

If swallowed, rinse mouth with water.  
DO NOT induce vomiting.  
Get medical advice, showing label information .

**In the event of excessive inhalation**

Move the victim to fresh air.  
Get medical advise immediately.

## 5/ Fire-fighting measures

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### 5.1 Extinguishing media

Recommended : foam, dry powder, carbon dioxide (CO<sub>2</sub>)  
Inadvisable : avoid full water jet

### 5.2 Special hazards

In case of fire, toxic fumes like carbon monoxide and carbon dioxide may be liberated.  
Burning produces heavy smoke, do not inhale fumes.

### 5.3 Particular protective measures

Particular protective measures when fire-fighting:  
The pressure in the closed containers may increase with high temperature.  
Cool the endangered drums by water spraying or by an appropriate produce if water is not authorized.

### 5.4 Advice for firefighters

Move undamaged containers from immediate hazard area if it can be done safely.  
Use suitable breathing apparatus.  
Regard to self protection.

## 6/ Accidental release measures

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### 6.1 Individual precautions

Remove all sources of ignition (Avoid all flammable sources. Do not smoke.)  
Provide adequate ventilation.  
Give a warning to people in the hazardous area.  
Wear personal protection equipment.  
Avoid contact with skin, eyes, and clothing.

### 6.2 Precautions for environmental conservation

Stop the substance to enter into drains and groundwater.  
Prevent spreading over a wide area.

### 6.3 Cleaning methods

Limit the dispersion of the product.  
Absorb the liquid with an inert absorbent, such as oil or sand.  
Wash with a grease extractor.  
Get rid of the duster and sponges used, according to local regulations.

## 7/ Handling and storage

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### 7.1 Handling

Handle with care.  
Keep the product away from heat and light.  
Remove all sources of ignition.  
Do not eat, drink, or smoke when handling the product.  
Do not ingest the product.  
Wear personal protective clothing.  
Use only in well-ventilated areas.

## 7.2 Storage

Fit quantities according to container volume, avoid too important empty spaces.

It is recommended to stock the product in its original packaging, tightly closed, sheltered from heat sources, air and light.

Avoid important temperature variation. Keep in temperate and well-ventilated area.

Do not re-use empty used containers.

Respect the usual hygiene rules.

Packaging materials to be avoid: iron containers

## 7.3 Specific end use(s)

No data available (confer to above recommendations)

## 8/ Exposure controls / Personal protection

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### 8.1 Control parameters

No data available.

### 8.2 Exposure controls

Use in well ventilated areas.

Follow usual hygiene rules. Wash hands after handling the product.

Keep away from food and beverages.

Provide accessible fire-extinguisher.

### Personal protection equipment

#### ◆ Respiratory protection

Generally unnecessary in a well-ventillated area.

If ventilation is insufficient, respiratory protection must be worn.

For pulverulent products, the wearing of a mask is recommended.

#### ◆ Hand protection

The wearing of chemical solvent and acid resistant gloves is necessary. (according to EN374 regulation)

#### ◆ Eye protection

The wearing of adequate safety glasses is advised.

Prescription glasses do not qualify as safety glasses.

Contact lenses users should wear prescription and safety glasses while using the product.

#### ◆ Skin protection

Wear personal safety equipment.

Handle the product with care, avoiding skin contact.

## 9/ Physical and chemical properties

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### 9.1 General information

Quality:	Organic Essential Oil, 100% pure and natural
Appearance:	liquid
Colour:	pale to amber yellow
Odour:	flowery, fresh, characteristic

### 9.2 Health, security and environmental information

Flash point:	+50°C to +59°C
Specific gravity at 20°C:	0.860 to 0.885
Solubility in water:	Insoluble
Solubility in ethanol:	Soluble

### 9.3 Others

Refractive index at 20°C:	1.460 to 1.480
Optical rotation at 20°C:	0° to +20°
Conservation:	Keep in tightly closed container in a cool and dry place, protected from light. Stable at usual storage and use conditions.
Lifetime:	When stored for more than 24 months, quality should be checked before use.
Main constituents:	linalool (25 to 45%), d-limonene (5 to 20%), β-pinene (5 to 20%), linalyl acetate (≤ 15%), trans-β-ocimene (5 to 15%), trans-nerolidol (≤ 10%)

## 10/ Stability and reactivity

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### 10.1 Condition to avoid

Excessive heat, open flames or other sources of ignition.  
This product is stable at room temperature.  
Temperatures above room temperature will allow the transfer from liquid to vapour phase and the formation of explosive atmosphere.  
Storing the product in open containers will benefit the formation of peroxides and derogate the quality.

### 10.2 Material to avoid or incompatible

No data available.

### 10.3 Dangerous decomposition products

No dangerous decomposition product known, if used according to specifications.

## 11/ Toxicological information

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### For dermal and eye absorption:

Causes skin irritation and severe eye damage

### For dermal and breathing sensitization:

May cause a skin allergy

### About mutagenicity:

Not identified as mutagen

### About carcinogenicity:

Not identified as carcinogen

### Toxic effects on the reproductive system:

None

### Inhalation hazards:

May be deadly in case of ingestion and penetration of respiratory tract

**Ill effect by absorption:** LD oral 50 5000 mg/kg

**Ill effect by dermal contact:** LD dermal 50 5000 mg/kg

## 12/ Ecological information

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Avoid any pollution of soil, ground and surface waters.

### 12.1 Toxicity



Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 12.2 Mobility

No data available.

### 12.3 Persistence et degradability

No data available.

### 12.4 Bio-accumulative potential

No data available.

### 12.5 PBT evaluation results

No data available.

### 12.6 Other adverse effects

No data available.

## 13/ Disposal consideration

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Dispose of or recycle waste material in accordance with local and EC environmental regulations.

<b>Air emission :</b>	avoid
<b>Wastewater disposal :</b>	avoid
<b>Release into natural environment:</b>	avoid
<b>Waste destruction:</b>	Appropriate inceneration station

Do not use the empty containers  
Get rid of the duster and sponges used by incineration.

## 14/ Transport information

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**14.1 UN number** 1169

### 14.2 Class

ADR (road) / RID (rail):	Class 3 (Flammable liquids)
IMDG (sea):	Class 3 (Flammable liquids)
IATA (air):	Class 3 (Flammable liquids)



### 14.3 Label

Extracts, aromatic, liquid

**14.4 Packaging group** III

**14.5 Aquatic toxicity** yes





## 14.6 Other information

Custom rate code: 33.01.29.41.00

## 15/ Regulatory information

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### Classification according to 67/548/EEC and 1999/45/EC

N: Dangerous for the environment

Xn: Harmful

#### Risk statements:

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.

#### Safety statements:

S24: Avoid contact with skin.

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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.

## 16/ Other information

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The information and recommendation contained in the data sheet are, to the best of IN-LUSTRYS's knowledge and belief, an accurate and reliable representation as to this material's known data. It's the user's responsibility to evaluate this information in a prudent manner and to use it consistently.

#### Used acronyms:

<b>INCI</b>	International Nomenclature of Cosmetic Ingredients
<b>CAS</b>	Chemical Abstract Service
<b>TSCA</b>	Toxic Substances Control Act
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>FEMA</b>	Federal Emergency Management Agency
<b>FDA</b>	Food and Drug Administration
<b>CoE</b>	Council of Europe
<b>GHS</b>	Global Harmonized System
<b>CLP</b>	Classification and Labelling and Packaging of substances and mixtures
<b>ADR</b>	Agreement Dangerous goods by Road
<b>RID</b>	Regulations concerning the International Transport of Dangerous Goods by Rail
<b>IMDG</b>	International Maritime Dangerous Goods
<b>IATA</b>	International Air Transport Association
<b>PBT</b>	Persistent Bioaccumulating Toxicants
<b>LD</b>	Lethal dose