

## SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

**Product:** Orange flower oil, bitter (Neroli and Neroli bigarade) FPD-2016A-LM8467

**Version:** 5

### Section 1. Identification of the substance or the mixture and of the supplier

#### 1.1 Product Identifier

**Product identifier:** Orange flower oil, bitter (Neroli and Neroli bigarade); CAS: 72968-50-4

**Other identifiers:** Citrus aurantium dulcis (Orange) flower oil

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

**Product uses:** Fragrances

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

**Company name:** Norfolk Essential Oils

**Company address:** Pates Farm  
Wisbech Road  
Tipsend  
Welney  
Wisbech  
PE14 9SQ

**Contact:** Regulatory Affairs

**E-Mail address:** info@ne oils.com

**Company phone:** 01354 638065

#### 1.4 Emergency telephone number

**Emergency phone:** 01354 638065

### Section 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### **Classification under Regulation (EC) No 1272/2008**

**Class and category of danger:** Skin Corrosion / Irritation Category 2  
Eye Damage / Irritation Category 2  
Sensitization - Skin Category 1  
Aspiration Hazard Category 1  
Hazardous to the Aquatic Environment - Acute Hazard Category 1  
Hazardous to the Aquatic Environment - Long-term Hazard Category 1  
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.  
H410, Very toxic to aquatic life with long lasting effects.

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### 2.2 Label elements

#### Classification under Regulation (EC) No 1272/2008

**Signal word:** Danger

**Hazard statements:** 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.  
H410, Very toxic to aquatic life with long lasting effects.

**M factor:** None

**Supplemental Information:** None

**Precautionary statements:** P261, Avoid breathing vapour or dust.  
P264, Wash hands and other contacted skin thoroughly after handling.  
P272, Contaminated work clothing should not be allowed out of the workplace.  
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.  
P302/352, IF ON SKIN: Wash with plenty of 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.  
P331, Do not induce vomiting.  
P333/313, If skin irritation or rash occurs: Get medical advice/attention.  
P337/313, If eye irritation persists: Get medical advice/attention.  
P362, Take off contaminated clothing and wash before reuse.  
P391, Collect spillage.  
P405, Store locked up.  
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

**Pictograms:**



### 2.3 Other hazards

**Other hazards:** Hydrocarbon Concentration %: 32.0000%

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### Section 3. Composition / information on ingredients

#### 3.1 Substances

**Product identifier:** Orange flower oil, bitter (Neroli and Neroli bigarade); CAS: 72968-50-4

**Contains:**

Name	CAS	EC	REACH Registration No.	%	Classification for (CLP) 1272/2008	Specific Conc. Limits, M-factors and ATEs
Linalool	78-70-6	201-134-4		20-<50%	Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1B;H315-H317-H319,-	oral: ATE = 2790 mg/kg bw
dl-Limonene (racemic)	138-86-3	205-341-0		10-<20%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,-	M = 1
beta-Pinene	127-91-3	204-872-5		5-<10%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,-	M = 1-M = 1
Linalyl acetate	115-95-7	204-116-4		5-<10%	Skin Irrit. 2-Eye Irrit. 2; H315-H319,-	
alpha-Terpineol	98-55-5	202-680-6		1-<5%	Skin Irrit. 2-Eye Irrit. 2; H315-H319,-	oral: ATE = 4300 mg/kg bw
Geraniol	106-24-1	203-377-1		1-<5%	Skin Irrit. 2-Eye Dam. 1-Skin Sens. 1;H315-H317-H318,-	oral: ATE = 3600 mg/kg bw
Geranyl acetate	105-87-3	203-341-5		1-<5%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Chronic 3; H315-H317-H412,-	
Nerolidol (isomer unspecified)	7212-44-4	230-597-5		1-<5%	Aquatic Acute 1-Aquatic Chronic 1; H410,-	M = 1-M = 1
trans-trans-Farnesol	106-28-5			1-<5%	Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1B;H315-H317-H319,-	
Neryl acetate	141-12-8	205-459-2		1-<5%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Chronic 3; H315-H317-H412,-	
Myrcene	123-35-3	204-622-5		1-<5%	Flam. Liq. 3-Skin Irrit. 2-Eye Irrit. 2-Asp. Tox 1;H226-H304-H315-H319,-	
alpha-Pinene	80-56-8	201-291-9		0.1-<1%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,-	M = 1-M = 1-oral: ATE = 3500 mg/kg bw
Terpinolene	586-62-9	209-578-0		0.1-<1%	Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H304-H317-H410,-	M = 1-oral: ATE = 3850 mg/kg bw
Benzyl nitrile	140-29-4	205-410-5		0.1-<1%	Acute Tox. 3-Acute Tox. 3-Acute Tox. 1; H301-H311-H330,-	inhalation: ATE = 0.2 mg/l (vapour)-dermal: ATE = 270 mg/kg bw-oral: ATE = 260 mg/kg bw

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Indole	120-72-9	204-420-7		0.1-<1%	Acute Tox. 4-Acute Tox. 3;H302-H311,-	dermal: ATE = 790 mg/kg bw-oral: ATE = 1000 mg/kg bw
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### Section 4. First-aid measures

#### 4.1 Description of first aid measures

**Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.  
**Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin exposure:** IF ON SKIN: Wash with plenty of soap and water.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.

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

None expected, see Section 4.1 for further information.

### Section 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

#### 5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

#### 5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

### Section 6. Accidental release measures

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

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

#### 6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

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

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

### 6.4 Reference to other sections:

Also refer to sections 8 and 13.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

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

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

### 7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

Workplace exposure limits: Not Applicable

### 8.2 Exposure Controls

#### Eye / Skin Protection

Wear protective gloves/eye protection/face protection

#### Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Physical State/Colour:** Not determined

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**Odour:** Not determined

**Odour threshold:** Not determined

**Melting point / freezing point:** Not determined

**Boiling point or initial boiling point and boiling range:** Not determined

**Flammability:** Not determined

**Lower and upper explosion limit:** Not determined

**Flash point:** 61 °C

**Auto-ignition temperature:** Not determined

**Decomposition temperature:** Not relevant

**pH:** Not determined

**Kinematic viscosity:** Not determined

**Solubility:** Not determined

**Partition coefficient: n-octanol/water (log value):** Not determined

**Vapour pressure:** Not determined

**Density and/or relative density:** Not determined

**Relative vapour density:** Not determined

**Particle characteristics:** Not determined

**9.2 Other information:** None available

### Section 10. Stability and reactivity

#### **10.1 Reactivity:**

Presents no significant reactivity hazard, by itself or in contact with water.

#### **10.2 Chemical stability:**

Good stability under normal storage conditions.

#### **10.3 Possibility of hazardous reactions:**

Not expected under normal conditions of use.

#### **10.4 Conditions to avoid:**

Avoid extreme heat.

#### **10.5 Incompatible materials:**

Avoid contact with strong acids, alkalis or oxidising agents.

#### **10.6 Hazardous decomposition products:**

Not expected.

### Section 11. Toxicological information

#### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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**Acute Toxicity:** Based on available data the classification criteria are not met.  
 Acute Toxicity Oral 4550 mg/kg  
 Acute Toxicity Dermal >5000  
 Acute Toxicity Inhalation Not Available  
**Skin corrosion/irritation:** Skin Corrosion / Irritation Category 2  
**Serious eye damage/irritation:** Eye Damage / Irritation Category 2  
**Respiratory or skin sensitisation:** Sensitization - Skin Category 1  
**Germ cell mutagenicity:** Based on available data the classification criteria are not met.  
**Carcinogenicity:** Based on available data the classification criteria are not met.  
**Reproductive toxicity:** Based on available data the classification criteria are not met.  
**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:** Aspiration Hazard Category 1

### Information about hazardous ingredients in the mixture

Ingredient	CAS	EC	LD50/ATE Oral (mg/kg)	LD50/ATE Dermal (mg/kg)	LC50/ATE Inhalation	LC50 Route
Benzyl nitrile	140-29-4	205-410-5	260	270	0.2	Vapour
Indole	120-72-9	204-420-7	1000	790	Not available	Not available

Refer to Sections 2 and 3 for additional information.

### 11.2 Information on other hazards

Not Applicable

### Section 12. Ecological information

#### 12.1 Toxicity:

Very toxic to aquatic life with long lasting effects.

**12.2 Persistence and degradability:** Not available

**12.3 Bioaccumulative potential:** Not available

**12.4 Mobility in soil:** Not available

#### 12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6 Endocrine disrupting properties:** Not Applicable

**12.7 Other adverse effects:** Not available

### Section 13. Disposal considerations

#### 13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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### Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
<b>UN Model Regulations</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene (racemic), beta-Pinene)	9	-	III
<b>IMDG</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene (racemic), beta-Pinene) MARINE POLLUTANT	9	-	III
<b>ADR,RID,ADN</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene (racemic), beta-Pinene)	9	-	III
<b>ICAO TI</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene (racemic), beta-Pinene)	9	-	III

**14.5 Environmental hazards:** This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

**14.6 Special precautions for user:** None additional

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**

Not applicable

### Section 15. Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Water Hazard Class (WGK): 3

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out for this product.

### Section 16. Other information

**Concentration % Limits:** SCI 2=11.36% EDI 2=11.70% SS 1=2.35% AH 1=31.25% EH A1=92.25%  
EH C1=92.25% EH C2=9.23% EH C3=0.92111566% EH C4=80.13%

**Total Fractional Values:** SCI 2=8.81 EDI 2=8.55 SS 1=42.60 AH 1=3.20 EH A1=1.08 EH C1=1.08  
EH C2=10.84 EH C3=108.56 EH C4=1.25

**Key to revisions:**

Concentration % Limits

SECTION 3: Composition/information on ingredients

Total Fractional Values



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**Key to abbreviations:**

Abbreviation	Meaning
Acute Tox. 1	Acute Toxicity - Inhalation Category 1
Acute Tox. 3	Acute Toxicity - Oral Category 3
Acute Tox. 3	Acute Toxicity - Dermal Category 3
Acute Tox. 4	Acute Toxicity - Oral Category 4
Aquatic Acute 1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the Aquatic Environment - Long-term Hazard Category 1
Aquatic Chronic 3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
Asp. Tox 1	Aspiration Hazard Category 1
Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2	Eye Damage / Irritation Category 2
Flam. Liq. 3	Flammable Liquid, Hazard Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapour or dust.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P284	Wear respiratory protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

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P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P330	Rinse mouth.
P331	Do not induce vomiting.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/233	Store in a well-ventilated place. Keep container tightly closed.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1	Sensitization - Skin Category 1
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

Norfolk  
Essential Oils