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Safety Data Sheet
Organic Lime Essential Oil
(Citrus aurantifolia)

In accordance with REACH Regulation EC No.1907/2006

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

1.1 Product Identifier

Product identifier: Organic Lime Oil; CAS: 90063-52-8; REACH REG: EU - 01-2120138646-51-****

Other identifiers: Citrus Aurantifolia Peel Oil Expressed

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

Product uses: Flavours,Fragrances,Cosmetics,Professional applications.

1.3 Details of the supplier of the safety data sheet

Company name: NHR Organic Oils Ltd.

Company address: 24 Chatham Place Brighton BN1 3TN UK

Contact: Technical Dept

E-Mail address: info@nhrorganicoils.com

Company phone: 01273 746505

1.4 Emergency telephone number

Emergency phone: 01273 746505

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger:

Flammable Liquid, Hazard Category 3
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
Sensitization - Skin Category 1
Toxic to Reproduction Category 2
Aspiration Hazard Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 1
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.
H319, Causes serious eye irritation.
H361, Suspected of damaging fertility or the unborn child (exposure route).

H410, Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Danger

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.
H319, Causes serious eye irritation.
H361, Suspected of damaging fertility or the unborn child (exposure route).
H410, Very toxic to aquatic life with long lasting effects.

M factor: None

Supplemental Information: None

Precautionary statements:
P202, Do not handle until all safety precautions have been read and understood.
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.
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.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313, IF exposed or concerned: Get medical advice/attention.
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.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391, Collect spillage.
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.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Organic Lime Oil; CAS: 90063-52-8; REACH REG: EU - 01-2120138646-51-****

Contains:

Name	CAS	EC	REACH Registration No.	%	Classification for (CLP) 1272/2008	Specific Conc. Limits, M-factors and ATEs
Limonene	5989-27-5	227-813-5		50-100%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 3; H226-H304-H315-H317-H400-H412,-	M = 1
p-Mentha-1,4-diene	99-85-4	202-794-6		10-<20%	Flam. Liq. 3-Repr. 2-Asp. Tox 1-Aquatic Chronic 2;H226-H304-H361-H411,-	oral: ATE = 3650 mg/kg bw
beta-Pinene	127-91-3	204-872-5		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-M = 1
Citral	5392-40-5	226-394-6		1-<5%	Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1;H315-H317-H319,-	
alpha-Pinene	80-56-8	201-291-9		1-<5%	Flam. Liq. 3-Acute Tox. 4-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H302-H304-H315-H317-H410,-	M = 1-M = 1-oral: ATE = 500 mg/kg bw
Myrcene	123-35-3	204-622-5		1-<5%	Flam. Liq. 3-Skin Irrit. 2-Eye Irrit. 2-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 2; H226-H304-H315-H319-H400-H411,-	M = 1

Linalool	78-70-6	201-134-4		0.1-<1%	Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1B;H315-H317-H319,-	oral: ATE = 2790 mg/kg bw
Geraniol	106-24-1	203-377-1		0.1-<1%	Skin Irrit. 2-Eye Dam. 1-Skin Sens. 1;H315-H317-H318,-	oral: ATE = 3600 mg/kg bw
beta-Caryophyllene	87-44-5	201-746-1		0.1-<1%	Skin Sens. 1B-Asp. Tox 1;H304-H317,-	
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-M = 1-oral: ATE = 3775 mg/kg bw
Geranyl acetate	105-87-3	203-341-5		0.1-<1%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Chronic 3;H315-H317-H412,-	
p-Mentha-1,3-diene	99-86-5	202-795-1		0.1-<1%	Flam. Liq. 3-Acute Tox. 4-Skin Sens. 1-Asp. Tox 1-Aquatic Chronic 2;H226-H302-H304-H317-H411,-	oral: ATE = 1680 mg/kg bw
Citronellal	106-23-0	203-376-6		0.1-<1%	Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1B;H315-H317-H319-H313,-	dermal: ATE = 2500 mg/kg bw-oral: ATE = 2500 mg/kg bw

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 (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

Suspected of damaging fertility or the unborn child (exposure route).

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,Do NOT use water.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: this product can generate oxides of carbon and other toxic gases.

5.3 Advice for fire fighters:

Wear self-contained breathing apparatus. Wear full, appropriate protective clothing.

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.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources.
Provide adequate ventilation.
Contain spillage imediately by use of sand or inert powder.

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.
Do not eat, drink or smoke whilst handling this product.
Do not breathe vapours, spray or mist.
Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities:

Maintain limited contact with oxygen.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Use explosion-proof electrical/ventilating/lighting equipment.
Protect from freezing, heat and light including sunlight.
Protect from all potential sources of ignition.
Ground/bond container and receiving equipment.

7.3 Specific end use(s):

Flavours,Fragrances,Cosmetics,Professional applications.: 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:	Liquid Pale - Green
Odour:	Characteristic
Odour threshold:	Not determined
Melting Point/Freezing Point:	Not determined
Boiling point or initial boiling point and boiling range:	130.00 °C
Flammability:	Not determined
Lower and upper explosion limit:	Not determined
Flash point:	53.00 °C
Auto-ignition temperature:	240 °C
Decomposition temperature:	Not relevant
pH:	Not determined
Kinematic viscosity:	Not determined
Solubility:	Insoluble in water.
Partition coefficient: n-octanol/water (log value):	Not determined
Vapour pressure:	170.900000
Density and/or relative density:	0.845 - 0.855

Relative vapour density:	Not determined
Particle characteristics:	Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Expected to remain stable under recommended storage conditions.

10.2 Chemical stability:

Expected to remain stable under recommended storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Extremes of temperature.

Freezing

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

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	>5000
Acute Toxicity Dermal	Not Applicable
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:	Toxic to Reproduction Category 2
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

Not Applicable

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.

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:
UN Model Regulations	UN1197	EXTRACTS, LIQUID	3	-	III
IMDG	UN1197	EXTRACTS, LIQUID (beta-Pinene) MARINE POLLUTANT	3	-	III
ADR,RID,ADN	UN1197	EXTRACTS, LIQUID	3	-	III
ICAO TI	UN1197	EXTRACTS, LIQUID	3	-	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

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Section 15. Regulatory information

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

None additional

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=11.00% EDI 2=75.19% SS 1=1.59% REP 2=15.79% AH 1=9.51% EH A1=28.87% EH C2=10.75% EH C3=1.05% EH C4=23.67%

Total Fractional Values: SCI 2=9.09 EDI 2=1.33 SS 1=63.00 REP 2=6.33 AH 1=10.51 EH A1=3.46 EH C2=9.30 EH C3=95.52 EH C4=4.22

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
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 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
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.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H313	May be harmful 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.
H361	Suspected of damaging fertility or the unborn child (exposure route).
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

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In accordance with REACH Regulation EC No.1907/2006

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.

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.
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.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
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.
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.
P403/235	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.
Repr. 2	Toxic to Reproduction Category 2
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1	Sensitization - Skin Category 1
Skin Sens. 1B	Sensitization - Skin Category 1B