

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: LEMON ZEST 381539

Version: 1

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

1.1 Product Identifier

Product identifier: LEMON ZEST 381539(Contains:GERANIOL, HEXYL CINNAMAL, LIMONENE, NEROL)

Other identifiers: None

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

Product uses:

1.3 Details of the supplier of the safety data sheet

Company name: Gracefruit Limited

Company address: 146 Glasgow Road
Longcroft
Stirlingshire
FK4 1QL

Contact: Regulatory Affairs

E-Mail address: gracefruit@gracefruit.com

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 1

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 2

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.

H400, Very toxic to aquatic life.

H411, Toxic to aquatic life with long lasting effects.

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Classification under Directive 1999/45/EC

Hazard symbols: Xn, Harmful.
N, Dangerous for the environment.

Risk phrases: R43, May cause sensitisation by skin contact.
R65, Harmful: May cause lung damage if swallowed
R36/38, Irritating to eyes and skin.
R50/53, Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

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.
H318, Causes serious eye damage.
H400, Very toxic to aquatic life.
H411, Toxic to aquatic life with long lasting effects.

Supplemental Information: EUH208, Contains CITRAL, CITRONELLOL, PINENES. May produce an allergic reaction.

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.
P310, Immediately call a POISON CENTER or doctor/physician.
P331, Do not induce vomiting.
P333/313, If skin irritation or rash occurs: 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.

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Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients**3.2 Mixtures**

Contains:

Name	CAS	EC	REACH Registration No.	%	Classification for (DSD) 67/548/EEC	Classification for (CLP) 1272/2008
LIMONENE	5989-27-5	227-813-5		20-<25%	Xn-N ; R10-R38-R43-R65-R50/53	FL 3-SCI 2-SS 1B-AH 1-EH A1-EH C1;H226-H304-H315-H317-H410,-
HEXYL CINNAMAL	101-86-0	202-983-3		10-<15%	Xi-N ; R38-R43-R50/53	SS 1B-EH A1-EH C2;H317-H400-H411,-
NEROL	106-25-2	203-378-7		5-<10%	Xi ; R43-R36/38	SCI 2-EDI 2-SS 1B;H315-H317-H319,-
GERANIOL	106-24-1	203-377-1		5-<10%	Xi ; R38-R41-R43	SCI 2-EDI 1-SS 1;H315-H317-H318,-
CITRAL	5392-40-5	226-394-6	01-2119462829-23	3-<5%	Xi ; R38-R43	SCI 2-EDI 2-SS 1B;H315-H317-H319,-
CITRONELLOL	106-22-9	203-375-0	01-2119453995-23	1-<3%	Xi-N ; R38-R43-R51/53	SS 1B-EH A1-EH C2;H315-H317-H319,-
PINENES				1-<3%	Xn ; R38-R43-R65	SCI 2-SS 1B-AH 1;H304-H315-H317,-
BENZYL BENZOATE	120-51-4	204-402-9		1-<3%	Xn-N ; R22-R51/53	ATO 4-EH A1-EH C2; H302-H400-H411,-
LINALYL ACETATE	115-95-7	204-116-4	01-2119454789-19	1-<3%	Xi ; R38	SCI 2-EDI 2;H315-H319,-
LINALOOL	78-70-6	201-134-4	01-2119474016-42	1-<3%	Xi ; R38	SCI 2-EDI 2;H315-H319,-
GAMMA-TERPINENE	99-85-4	202-794-6		1-<3%	Xn ; R10-R65	FL 3-AH 1;H226-H304,-
HOMOGERANYL NITRILE	61792-11-8	263-214-5	01-2119967769-11	0.1-<1%	N ; R51/53	EH C2;H411,-
DECANAL	112-31-2	203-957-4		0.1-<1%	N ; R51/53	EDI 2-EH C3;H319-H412,-
MYRCENE	123-35-3	204-622-5		0.1-<1%	Xn ; R10-R38-R65	FL 3-SCI 2-EDI 2-AH 1; H226-H304-H315-H319,-
OCTANAL	124-13-0	204-683-8		0.1-<1%	Xi-N ; R10-R36/38-R51/53	FL 3-SCI 2-EDI 2-EH C2; H226-H315-H319-H411,-
GAMMA UNDECALACTONE	104-67-6	203-225-4		0.1-<1%	N ; R51/53	EH C3;H412,-
BETA-CARYOPHYLLENE	87-44-5	201-746-1		<0.1%	Xn ; R65	AH 1;H304,-
TURPENTINE	8006-64-2, 9005-90-7, 8052-14-0	232-350-7, 232-688-5		<0.1%	Xn-N ; R10-R43-R65-R20/21/22-R36/38-R51/53	FL 3-ATO 4-ATD 4-ATI 4-SCI 2-EDI 2-SS 1-AH 1-EH C2;H226-H302-H304-H312-H315-H317-H319-H332-H411,-

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Substances with Community workplace exposure limits, not listed above:

Name	CAS	EC	%
BHT (BUTYLATED HYDROXYTOLUENE)	128-37-0	204-881-4	<0.001%
DIETHYL PHTHALATE	84-66-2	201-550-6	27.76%
TURPENTINE	8006-64-2, 9005-90-7, 8052-14-0	232-350-7, 232-688-5	0.009%

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 damage.

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.

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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. 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):

Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits:

Ingredient	CAS	EC	Description	ppm	mg/m ³	Reference
BHT (BUTYLATED HYDROXYTOLUENE)	128-37-0	204-881-4	Long-term exposure limit (8-hour TWA reference period)	-	10	UK EH40 Oct 2007
			Short-term exposure limit (15-minute reference period)	-	-	UK EH40 Oct 2007

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DIETHYL PHTHALATE	84-66-2	201-550-6	Long-term exposure limit (8-hour TWA reference period)	-	5	UK EH40 Oct 2007
			Short-term exposure limit (15-minute reference period)	-	10	UK EH40 Oct 2007
TURPENTINE	8006-64-2, 9005-90-7, 8052-14-0	232-350-7, 232-688-5	Long-term exposure limit (8-hour TWA reference period)	100	566	UK EH40 Oct 2007
			Short-term exposure limit (15-minute reference period)	150	850	UK EH40 Oct 2007

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) 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

Appearance:	Clear pale yellow to yellow liquid
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	Not determined
Flash point:	66 °C
Vapour pressure:	Not determined
Relative density:	0.9440 - 0.9480
Solubility(ies):	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.

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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 toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in Regulation (EC) No 1272/2008 (CLP).

May be fatal if swallowed and enters airways.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: >5000 mg/kg

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: >5000

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Information about hazardous ingredients in the mixture

Ingredient	CAS	EC	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
BENZYL BENZOATE	120-51-4	204-402-9	1500	4000	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

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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 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: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE, HEXYL CINNAMAL)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

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

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: EH A1=75.91% EH C2=11.48% EH C3=1.15% EH C4=75.91% SCI 2=23.03% EDI 1=57.31% EDI 2=14.71% EDI 2A=14.71% SS 1=4.87% AH 1=40.91%

Total Fractional Values: EH A1=1.32 EH C2=8.71 EH C3=87.10 EH C4=1.32 SCI 2=4.34 EDI 1=1.75 EDI 2=6.80 EDI 2A=6.80 SS 1=20.54 AH 1=2.44

Key to revisions:

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Not applicable

Key to abbreviations:

Abbreviation	Meaning
AH 1	Aspiration Hazard Category 1
ATD 4	Acute Toxicity - Dermal Category 4
ATI 4	Acute Toxicity - Inhalation Category 4
ATO 4	Acute Toxicity - Oral Category 4
EDI 1	Eye Damage / Irritation Category 1
EDI 2	Eye Damage / Irritation Category 2
EH A1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
EH C1	Hazardous to the Aquatic Environment - Long-term Hazard Category 1
EH C2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
EH C3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
FL 3	Flammable Liquid, Hazard Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	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.
H332	Harmful if inhaled.
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.
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.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
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.

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P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
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.
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.
SCI 2	Skin Corrosion / Irritation Category 2
SS 1	Sensitization - Skin Category 1
SS 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.