

Safety Data Sheet

In accordance with REACH Regulation EC No.1907/2006

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:	Lime Essential Oil (Steam Distilled)
CAS number:	90063-52-8
EINECS number:	290-010-3
Synonyms:	Lime Oil Distilled
INCI name:	Citrus Aurantifolia Peel Oil Distilled

1.2. Details of the supplier of the safety data sheet

Company name:	Bath and Body Base Ltd 2A Laurel Way Bishop Auckland Co. Durham DL14 7NF
Tel:	07493 064263
Email:	technical@bathandbodybase.com

1.3. Emergency telephone number

Emergency tel:	07493 064263
-----------------------	--------------

Section 2: Hazards identification

2.1. Classification of the substance or mixture

The full text for all hazard statements is displayed in Section 16.

Classification (67/548/EEC):	No additional data available.
Classification (EU1272/2008):	H304 - Aspiration Toxicity Category 1 H315 - Skin Corrosion/Irritation Category 2 H319 - Serious Eye Damage/Eye Irritation Category 2 H317 - Skin Sensitization Category 1B H361 - Reproductive Toxicity Category 2 H400 - Acute Aquatic Toxicity Category 1 H410 - Chronic Aquatic Toxicity Category 1 H226 - Flammable Liquids Category 3

2.2. Label elements

Label in accordance with regulation (EC) no 1272/2008.

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. H361 - Suspected of damaging fertility or the unborn child. H410 - Very toxic to aquatic life with long lasting effects. H226 - Flammable liquid and vapor. Contains Sabinene, Linalool EUH208 - Limonene May produce an allergic reaction.
---------------------------	---

Signal words: Danger

Contains: d-Limonene, gamma-Terpinene, Terpinolene, alpha-Terpinene

Hazard pictograms:



Precautionary statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces - no smoking.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P263 - Avoid contact during pregnancy/while nursing.

P301 + P310 - If swallowed: immediately call a poison centre or doctor.

P331 - Do not induce vomiting.

P302 + P352 - Of on skin: wash with plenty of soap and water.

P333 + P313 - If skin irritation or rash occurs, get medical advice/attention.

P305 + P351 + P338 - If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists, get medical advice/attention.

P308 + P313 - If exposed or concerned, get medical advice/attention.

P273 - Avoid release to the environment.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

2.3. Other hazards

Adverse physio-chemical properties:	No data.
Adverse effects on human health:	No data.
PBT or vPvB according to annex XIII:	No data.

Section 3: Composition/information on ingredients

3.1. Mixtures

Mixtures:

60 - 70% d-Limonene
 CAS-No.: 5989-27-5, EC No.: 227-813-5
 Classification (EC 1272/2008) FL 3-SCI 2-SS 1B-AH 1-EH A1-EH C1, H226, H304, H315, H317, H410

10 - 20% Γ-Terpinene (p-mentha-1,4-diene)
 CAS No.: 99-85-4, EC No.: 202-794-6
 Classification (EC 1272/2008) FL 3-AH 1, H226, H304

1 - 10% Terpinolene
 CAS No.: 586-62-9, EC No.: 209-578-0
 Classification (EC 1272/2008) SS 1B-AH 1-EH A1-EH C1, H304, H317, H410

1 – 10% alpha-Terpineol

CAS No.: 98-55-5, EC No.: -

Classification (EC 1272/2008) Aquatic Acute 2 (H401) (EFFA), Eye Irrit. 2 (H319) (EFFA), Skin Irrit. 2 (H315) (EFFA), Acute Tox. 5 (H303) (EFFA), Flam. Liq. 4 (H227) (EFFA)

1 - 10% alpha-Terpinene

CAS No.: 99-86-5, EC No.: -

Classification (EC 1272/2008) Aquatic Acute 2 (H401) (EFFA), Skin Irrit. 3 (H316) (EFFA), Aquatic Chronic 2 (H411) (EFFA), Asp. Tox. 1 (H304) (EFFA), Acute Tox. 4 (H302) (EFFA), Flam. Liq. 3 (H226) (EFFA)

1 - 10% beta-Pinene

CAS No.: 127-91-3, EC No.: -

Classification (EC 1272/2008) Acute Aquatic 1 (H400) (EFFA), Chronic Aquatic 1 (H410) (EFFA), Skin Sens. 1 (H317) (EFFA), Skin Irrit. 2 (H315) (EFFA), Asp. Tox. 1 (H304) (EFFA), Flam. Liq. 3 (H226) (EFFA)

1 - 10% para-Cymene

CAS No.: 99-87-6, EC No.: -

Classification (EC 1272/2008) Rep Tox. 2 (H361), Aquatic Acute 2 (H401), Skin Irrit. 3 (H316), Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Acute Tox. 5 (H303), Flam. Liq. 3 (H226)

1 - 10% delta-3-Carene

CAS No.: 13466-78-9, EC No.: -

Classification (EC 1272/2008) Skin Sens. 1 (H317) (EFFA), Skin Irrit. 2 (H315) (EFFA), Asp. Tox. 1 (H304) (EFFA)

1 - 10% Myrcene

CAS No.: 123-35-3, EC No.: -

Classification (EC 1272/2008) Eye Irrit. 2 (H319) (EFFA), Skin Irrit. 2 (H315) (EFFA), Asp. Tox. 1 (H304) (EFFA), Flam. Liquid 3 (H226) (EFFA), Acute Aquatic 1 (H400) (EFFA), Chronic Aquatic 2 (H411) (EFFA)

1 - 10% alpha-Pinene

CAS No.: 80-56-8, EC No.: -

Classification (EC 1272/2008) Acute Aquatic 1 (H400) (EFFA), Chronic Aquatic 1 (H410) (EFFA), Acute Tox. 4 (H302) (EFFA), Skin Sens. 1B (H317) (EFFA), Skin Irrit. 2 (H315) (EFFA), Asp. Tox. 1 (H304) (EFFA), Flam. Liq. 3 (H226) (EFFA)

0.1 – 1% trans beta-Ocimene

CAS No.: 3779-61-1, EC No.: -

Classification (EC 1272/2008) Acute Tox. 5 (H303) (EFFA), Asp. Tox. 1 (H304) (EFFA), Skin Irrit. 2 (H315) (EFFA), Acute Aquatic 1 (H400) (EFFA), Chronic Aquatic 2 (H411) (EFFA), Flam. Liq. 3 (H226) (EFFA)

0.1 – 1% alpha-Phellandrene

CAS No.: 99-83-2, EC No.: -

Classification (EC 1272/2008) Skin Irrit. 3 (H316) (EFFA), Asp. Tox. 1 (H304) (EFFA), Flam. Liq. 3 (H226) (EFFA)

0.1 – 1% Camphene

CAS No.: 79-92-5, EC No.: -

Classification (EC 1272/2008) Aquatic Acute 1 (H400) (EFFA), Eye Irrit. 2B (H320) (EFFA), Aquatic Chronic 1 (H410) (EFFA), Flam. Sol 2 (H228) (EFFA)

0.1 – 1% Sabinene

CAS No.: 3387-41-5, EC No.: -

Classification (EC 1272/2008) Aspiration Cat 1 (H304), Flam Cat 3 (H226), Skin Irri Cat 2 (H315), Skin Sensi Cat 1B (H317), Acute Aquatic Cat 1 (H400), Chronic Aquatic Cat 1 (H410)

0.1 – 1% Linalool

CAS No.: 78-70-6, EC No.: -

Classification (EC 1272/2008) Aquatic Acute 3 (H402) (EFFA), Eye Irrit. 2 (H319) (EFFA), Skin Irrit. 2 (H315) (EFFA), Acute Tox. 5 (H303) (EFFA), Flam. Liq. 4 (H227) (EFFA), Skin Sens. 1B (H317) (EFFA)

Section 4: First aid measures**4.1. Description of first aid measures**

General advice:	Always remove contaminated clothing immediately.
Skin contact:	Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
Eye contact:	Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Ingestion:	Get medical attention immediately. Rinse mouth with water and obtain medical attention.
Inhalation:	Get medical attention immediately. Remove from exposure site to fresh air, keep at rest and obtain medical attention.

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

Symptoms/effects: None known.

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

Immediate/special treatment: Treat symptomatically.

Section 5: Fire-fighting measures**5.1. Extinguishing media**

Suitable extinguishing media: Foam, CO₂, dry chemical powder.

5.2. Special hazards arising from the substance or mixture

Special hazards: Burning produces irritating, toxic and obnoxious fumes.

5.3. Advice for fire-fighters

Special protective equipment for fire-fighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Section 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions: Ensure adequate ventilation of the working area, evacuate personnel to safe area, wear suitable protective equipment. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground. Dispose of in line with local authority guidelines.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: 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

Reference to other sections: Refer and consider Sections 8, 12 and 13.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Handle in accordance with good hygiene and safety practice. 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

Storage: Keep the product container tightly closed, in a dry, ventilated area. Keep away from potential sources of ignition and protected from light. Maintain limited contact with oxygen.

7.3. Specific end use(s)

Specific end use(s): No data.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Control parameters:

Chemical Name	European Union	United Kingdom	France	Spain	Germany
d-Limonene 5989-27-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	S* TWA: 30 ppm TWA: 168 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m ³ Skin
gamma-Terpinene 99-85-4	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Terpinolene 586-62-9	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-

alpha-Terpinene 99-86-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
beta-Pinene 127-91-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
para-Cymene 99-87-6	-	-	TWA: 150 mg/m ³ TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
delta-3-Carene 13466-78-9	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
Myrcene 123-35-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
alpha-Pinene 80-56-8	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
trans beta-Ocimene 3779-61-1	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
alpha-Phellandrene 99-83-2	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Camphene 79-92-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Sabinene 3387-41-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³	-
beta-Pinene 127-91-3	-	TWA: 20 ppm	-	-	-
para-Cymene 99-87-6	-	-	-	-	TWA: 25 ppm TWA: 135 mg/m ³
delta-3-Carene 13466-78-9	-	TWA: 20 ppm	-	-	-
alpha-Pinene 80-56-8	-	TWA: 20 ppm	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
d-Limonene 5989-27-5	-	STEL: 14 ppm STEL: 80 mg/m ³ TWA: 7 ppm TWA: 40 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
beta-Pinene 127-91-3	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
delta-3-Carene 13466-78-9	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Myrcene 123-35-3	-	-	-	TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	-
alpha-Pinene 80-56-8	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ Skin STEL: 37.5 ppm STEL: 175 mg/m ³	-
Camphene 79-92-5	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	-	-

8.2. Exposure controls



Eye protection:	Wear protective gloves/eye protection/face protection.
Hand protection:	Wear protective gloves/eye protection/face protection.
Respiratory equipment:	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
Hygiene measures:	Good personal hygiene practices are always advisable, especially when working with chemicals/oils.
Engineering measures:	Provide adequate ventilation.
Skin protection:	Wear protective clothing to reduce the risk of skin and eye contact.
Personal protection:	Avoid inhalation of the product. Avoid contact with skin and eyes.
Other protection:	Wear suitable protection to avoid contact with skin and eyes. Do not inhale vapours.
Process conditions:	Ensure area is well ventilated. Avoid vapour inhalation. Safety shower and eye bath.
Environmental exposure controls:	Avoid discharging into drainage water.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless – pale yellow
Odour:	Characteristic of lime
Relative density @ 25°C	0.8455 – 0.8565
Flashpoint (°C)	52°C
Refractive index @ 20°C	1.4710 - 1.4760
Solubility in water @ 20°C	No additional data available.

9.2. Other information

Other information:	No data.
Information with regard to physical hazard classes:	No data.
Other safety characteristics:	No data.

Section 10: Stability and reactivity**10.1. Reactivity**

Reactivity: Presents no significant reactivity hazards, by itself or in contact with water. Stable under normal temperature and storage conditions and recommended use.

10.2. Chemical stability

Chemical stability: Stable under suggested storage conditions (<15°C).

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: Not expected under normal conditions of use.

10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5. Incompatible materials

Materials to avoid: P.V.C

10.6. Hazardous decomposition product

Haz. decomp. products: This product does not decompose under normal conditions. Under fire conditions the product will produce a mixture of irritating fumes and smoke and carbon monoxide.

Section 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity: The following values are calculated based on chapter 3.1 of the GHS document:
65.6942% of the mixture consists of ingredient(s) of unknown acute oral toxicity.
97.8736% of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
97.8736% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
97.8736% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
95.868% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Skin irritation: Irritating to skin.

Eye damage or irritation: Causes serious eye irritation.

Respiratory or skin sensitivity: May cause sensitisation by skin contact.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Product is or contains a chemical which is a known or suspected reproductive hazard. gamma-Terpinene, para-Cymene.

STOT – single exposure: Not classified.
STOT – repeated exposure: Not classified.
Aspiration hazard: May be fatal if swallowed and enters airways (H304).

11.2. Information on other hazards

Information on other hazards: Not classified.

Section 12: Ecological information

12.1. Toxicity

Toxicity: Very toxic to aquatic life with long lasting effects. 13.9918% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Crustacea	Algae/aquatic plants	Fish
d-Limonene	48hr EC50 - 0.4 mg/L (Daphnia magna)	96 hr NOEC - 4mg/L (Green algae)	96hr LC50 - 0.7mg/L (Pimephales promelas)
alpha-Terpineol	48hr EC50 - 73 mg/l (Daphnia magna)	72hr EC50 - 68mg/l	96hr LC50 - 62 to 80 mg/L (Danio rerio)
para-Cymene	72hr ErC50 - 4.03 mg/L, NOErC - 1.4 mg/L (Scenedesmus capricornutum)	48hr EC50 - 100 mg/L	96hr LC50 - 48 mg/L (Cyprinodon variegatus)
alpha-Pinene	41: 48 h Daphnia magna mg/L LC50		0.28: 96 h Pimephales promelas mg/L LC50 static
Camphene	48hr EC50/LC50 - 50 mg/L (Daphnia magna)	72hr EC50 - 30.31 mg/L, EC10 or NOEC - 10 mg/L (Pseudokirchneriella subpicata)	96hr LC50 - 50 mg/L (Danio rerio)
Linalool	48hr EC50 - 59mg/L (Daphnia magna)	96hr EC50 - 156.7 mg/L; EC10 or NOEC - 54.3 mg/L (Desmodesmus subspicatus)	96hr LC50 - 27.8mg/L (Salmo gairdneri)

12.2. Persistence and degradability

Persistence and degradability: No data.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data.

12.4. Mobility in soil

Mobility: No data.

12.5. Results of PBT and vPvB assessment

Results: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties

Endocrine disrupting potential: Do not allow product to enter streams, sewers or other waterways.

12.7. Other adverse effects

Other adverse effects: No data.

Section 13: Disposal considerations
13.1. Waste treatment methods

Product: Always recover spilled product. Discard waste material with authorized waste management services. Act in accordance with local and national waste regulations.

Section 14: Transport information

UN number or ID number: Road: UN1197
Rail: UN1197
Air: UN1197

UN proper shipping name: Extracts, Aromatic, Liquid

Transport hazard class(es): ADR/RID/ADN Class: 3 Flammable liquid
IMDG Class: 3 Flammable liquid
ICAO Class/division: 3 Flammable liquid

Transport label:



Packaging group: ADR/RID/ADN Packing group: III
IMDG Packing group: III
ICAO Packing group: III

Environmental hazards: Environmentally Hazardous Substance/Marine Pollutant



Special precautions for user: Refer and consider Sections 6-8.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: No additional data.

Section 15: Regulatory information
15.1. Product specific safety, health & environmental regulations & legislation

EU Directives: Regulation (EC) no 2020/878 of the European parliament and of the council of 18th December 2006. Concerning the registration, evaluation, authorization and restriction of chemicals (REACH), establishing a European chemicals agency, amending directive 1999/45/EC and repealing council regulation (EEC) no793/93 and commission regulation (EC) no1488/94 as well as council directive 76/769/EEC and commission directive 91/155/ECC, 93/67/ECC, 93/105/EEC and 2000/21/EC (including amendments).

Statutory instruments: The Chemicals (Hazard Information and Packaging for Supply Regulations 2009 (S.I.2009 No 716).

Approved code of practice: Classification and labelling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

Guidance notes:

Workplace exposure limits EH40. CHIP for everyone HSG 108.

Section 16: Other information**16.1. Other information****Hazard and/or precautionary statements in full:**

H226 - Flammable Liquid and Vapor
H227 - Combustible Liquid
H228 - Flammable Solid
H302 - Harmful If Swallowed
H303 - May Be Harmful If Swallowed
H304 - May Be Fatal If Swallowed and Enters Airways
H315 - Causes Skin Irritation
H316 - Causes Mild Skin Irritation
H317 - May Cause an Allergic Skin Reaction
H319 - Causes Serious Eye Irritation
H320 - Causes Eye Irritation
H361 - Suspected of Damaging Fertility or the Unborn Child
H400 - Very Toxic to Aquatic Life
H401 - Toxic to Aquatic Life
H402 - Harmful to Aquatic Life
H410 - Very Toxic to Aquatic Life with Long Lasting Effects
H411 - Toxic to Aquatic Life with Long Lasting Effects

Other information:

* Indicates text in the SDS which has changed since the last revision.

Legal disclaimer:

This information is provided for documentation purposes only.

The complete range of conditions or methods of use are beyond our control therefore we do not assume any responsibility and expressly disclaim any liability for any use of this product.

Information contained herein is believed to be true and accurate however, all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

Compliance with all appropriate local regulations remains the responsibility of the user.

This safety sheet cannot cover all possible situations which the user may experience during processing.

Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary.

All health and safety information contained in this document should be provided to your employees or customers.