

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:	Bergamot FCF Essential Oil (Distilled)
CAS number:	8007-75-8/89957-91-5
EINECS number:	289-612-9
Other names:	Bergamot Oil FCR, Bergamot Oil FCF, Bergamot Oil Distilled, Bergamot Oil Bergaptene Free, Bergamot Oil Furocoumarin Free
INCI name:	Citrus Bergamia Peel Oil (Distilled)

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

Industrial use:	Washing and cleaning products.
Professional use:	Washing and cleaning products; polishes and wax blends.
Consumer use:	Washing and cleaning products; air care products; polishes and wax blends; biocides; cosmetics.

1.3. 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

1.4. Emergency telephone number

Emergency tel:	07493 064263
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Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:	Flam. Liq. 3 – H226 Asp. Tox. 1 – H304 Skin Irrit. 2 – H315 Skin Sens. 1 – H317 Eye Irrit. 2 – H319 Aquatic Chronic 3 – H412
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2.2. Label elements

Label elements labelling according to Regulation (EC) No 1272/2008 [CLP]

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. H412: Harmful to aquatic life with long lasting effects.
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Signal words: DANGER

Hazard pictograms:



Precautionary statements (prevention):	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof equipment. P262: Do not get in eyes, on skin, or on clothing. P264: Wash hands thoroughly after handling. P273: Avoid release to the environment. P280: Wear protective gloves/clothing/eye-protection/face protection.
Precautionary statements (response):	P370+P378: In case of FIRE: use carbon dioxide, dry sand, dry chemical or alcohol-resistant foam to extinguish. P301+P316: IF SWALLOWED: Get emergency medical help immediately. P331: DO NOT induce vomiting. P333+P317: IF SKIN irritation or rash occurs: Get medical help. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). 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+P317: IF EYE irritation persists: Get medical help. P363: Wash contaminated clothing before reuse. P391: Collect spillage.
Precautionary statements (storage):	P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up.
Precautionary statements (disposal):	P501: Dispose of contents/container in accordance with local/regional/national/international regulations. Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

2.3. Other hazards

Other hazards:	All essential oils are highly concentrated so have strong aromas and colour that can stain. Bergamot Oil contains over 11% Hydrocarbons (59%). Emergency treatment for those who accidentally swallow oils in this category is to seek medical attention immediately and transport sitting in a half-upright position. Substance is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100. Substance does not meet the criteria for vPvB and PBT according to Regulation (EC) No 1907/2006, Annex XIII.
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Section 3: Composition/information on ingredients

3.1. Chemical identity of the substance

Chemical identity: Bergamot, Ext

**Common names(s),
synonym(s):**

Organic Bergamot Oil FCR, Bergamot Oil Expressed FCR, Bergamot Oil Furocoumarin Reduced, Bergamot Oil Bergaptene Free, Bergamot Oil Furocoumarin Free

3.2. Substances
**Mixture/Natural Complex
Substance (NCS):**

This is a Natural Complex Substance (NCS). The substance has a natural variability in its composition and has not been rectified by the producer. Oil is produced from cold pressing of fruit grown in organic plantations, followed by steam distillation.

**Chemical Identity of
ingredients:**
**Classification according to COMMISSION REGULATION (EU)
2017/542 of 22 March 2017 amending Regulation (EC) No
1272/2008**

Major components of this natural complex substance are:

 30 to 45% **Limonene** – CAS 5989-27-5, EC 227-813-5: Flam. Liq 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

 20 to 36% **Linalyl acetate** – CAS 115-95-7, EC 204-116-4: Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319

 6 to 10% **γ -Terpinene** – CAS 99-85-4, EC 202-794-6: Flam. Liq. 3, H226; Repr. 2, H361; Aquatic Chronic 2, H411

 5.5 to 9.5% **β -Pinene** – CAS 127-91-3, EC 204-872-5: Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic, 1 H410

 3 to 15% **Linalool** – CAS 78-70-6, EC 201-134-4: Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319

 0.5 to 2.5% **α -Pinene** – CAS 80-56-8, EC 201-291-9: Flam. Liq. 3, H226; Acute Tox 4, H302; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute, H400; Aquatic Chronic 1, H410

 0 to 0.25% **p-Cymene** – CAS 99-87-6, EC 202-796-7: Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 (Lung, Oral); Repr. 2, H361 (Treatment related); Aquatic Chronic 2, H411

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

General advice:	If health disorder happens, call for medical help immediately. Immediately remove any soiled clothing.
Skin contact:	Remove contaminated clothing and wash with water and soap the contaminated part - make sure you have eliminated the contamination - in case of complaints seek medical attention.
Eye contact:	Abundant eye-wash for 15 minutes with pure water, make sure you have eliminated the contamination, in case of complaints seek medical attention.
Swallowed:	Ask immediately medical assistance - mouth washing with water and do not provoke vomiting.
Inhalation:	Move to fresh air for at least 15 minutes, in case of complaints seek medical attention.
Self-protection of First Aider:	Use personal protective equipment as described in Section 8 if substance is present.

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

Most important symptoms and effects: Inhalation: can cause slight headache.
Contact: can cause bloodshot eyes - can cause slight skin rash.
Acute and delayed effects: no post-disorder effects are reported.

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

Immediate/special treatment: Immediate medical assistance: see description of first aid measures.
Immediate/special treatment: see description of first aid measures.
First aid specific means: eye wash fountain/safety shower should be available in the work area.

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

Suitable extinguishing media: SMALL FIRE: Use CO₂, alcohol-free foam, dry powder.
LARGE FIRE: Use water spray or fog - cool containing vessels with water jet to prevent pressure build-up, autoignition or explosion.

Unsuitable extinguishing media: Pressurised water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: May produce fumes of carbon monoxide and carbon dioxide, smoke and soot.

5.3. Advice for fire-fighters

Advice for fire-fighters: Standard procedure for chemical fires - spray extinguishing media to base of flames. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus.

5.4. Emergency action code

Emergency action code: 3[Y] (Foam + BA & Fire Kit)

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

For non-emergency personnel: In an emergency (i.e. unintentional important release of the product in enclosed space) respiratory protection (Gas filter A, colour code brown: consider the maximum duration for wear) must be worn. Use insulating device for respiratory protection with an independent air supply in circumstances which are unclear - use adequate protections solvent resistant: security shoes, bodysuit, gloves and protective goggles (see Section 8).

For emergency responders: As per non-emergency personnel. Wear an appropriate NIOSH/MSHA approved respirator if mist, vapour or aerosol is generated.

Emergency procedures: remove any ignition source and ensure adequate ventilation in working areas following accidental releases.

6.2. Environmental precautions

Environmental precautions: Do not allow material to be released to the environment/surface and ground water/sewers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Keep away from heat, remove ignition sources and use non-combustible absorbing sawdust (sand, specific binder). Clean up spillage promptly. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations. Pick up and arrange disposal without creating mist/aerosol/excessive vapours. Keep in upright, suitable, closed containers for disposal.

6.4. Reference to other sections

Reference to other sections: Take hazard and precautionary phrases (Section 2) and Sections 7, 8 and 13 into account.

Section 7: Handling and storage

7.1. Precautions for safe handling

Protective measures: See point "Exposure controls/personal protection".
Safe handling: during handling keep original container closed - avoid contact with skin and eyes - wear adequate protective gloves protection and eye/face protection - avoid any sources of ignition - avoid exposing to high temperature during processing - maintain adequate local and general ventilation where product is handled.

Advice on general occupational hygiene: Do not ingest or apply to the skin as such - no smoking - remove contaminated clothing - good personal washing routines should be followed - if at risk of contamination, foods, beverages and other articles of consumption must not be stored or consumed at the work areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage: To be stored in stainless steel drums, preferably under inert atmosphere (nitrogen) with minimum head space, protected from daylight.

Take note: the container used during transportation must be considered only as a temporary container and it must not be considered in any case adequate for medium or long term warehousing.

Conditions: stored in a dry, aerated place, away from any heat source and ignition source. Temperature: from 5°C and 20°C.

Packaging: Refer to Section 16 for safe packaging information.

Incompatibilities: Refer to Section 10.

7.3. Specific end use(s)

Recommendations: Use as odour/flavouring agent - the information in this section is not related to the use of the product in combination with any other material or any other process altering its characteristics.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:	Not available.
Additional exposure limits under the conditions of use:	Not available.
DNEL/DMEL and PNEC-Values:	Not available.

8.2. Exposure controls



Engineering controls:	It is recommended that facilities storing or utilising this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Observe proper precautions regarding potential ignition sources. Handle and store in accordance with good industrial hygiene and safety practices. Wear appropriate PPE according to Directive 89/686/EEC.
PPE – General:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, using the bathroom and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
PPE – Eye/face:	Use protection goggles according to EN166.
PPE – Skin:	<p>Hand: Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The quality of the protective gloves resistant to chemicals and the breakthrough time must be chosen as a function of the specific working place concentration and quantity of hazardous substances.</p> <p>Other: Wear protective clothing according to that recommended by the risk assessment for the product's use.</p>
PPE – Respiratory:	Respiratory protection may be required if excessive airborne contamination occurs.
Environmental exposure control:	Avoid discharge into the environment. Refer to additional information provided in Sections 6 and 7 regarding safe handling and storage to prevent exposure to individuals and/or to the environment. Refer to official regulations (local/government).

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Oily liquid
Colour:	Colourless to pale green
Odour:	Characteristic, pleasant and cool, recalling the fresh pericarp of bergamot
Relative density:	@ 20°C: 0.860 to 0.868
Refractive index:	@ 20°C: 1.465 to 1.470

Optical rotation:	@ 20°C: +10° to +36°
Solubility:	@ 25°C: soluble in alcohol; in water, 0.0281 to 1767.3mg/l
Boiling point:	@ 101 325 Pa: no data – substance decomposes before boiling
Vapour pressure:	@ 25°C: 123.1 Pa
Freezing point:	@ 101 325 Pa: < -30°C
Flash point:	58°C (supplier value)
Flammability:	The study does not need to be conducted because the substance is known to be stable in contact with air at room temperature for prolonged periods of time (days) and it does not contain metals or metalloids hence the classification procedure does not need to be applied.
Explosiveness:	The study does not need to be conducted because there are no chemical groups present that are associated with explosive properties.
Auto-ignition temperature:	@ 101 325 Pa: 235°C
Kinematic viscosity:	No studies available (REACH dossier).
Partition coefficient n-octanol/water (log value):	Log Kow range for Bergamot oil constituents was found to be 2.14 - 6.3 with 84.6% of composition above 4.0.
Relative vapour density:	No studies available (REACH dossier).

9.2. Other information

Information with regard to physical hazard classes:	Categories not relevant for the safe use of this substance.
Other safety characteristics:	Categories not relevant for the safe use of this substance.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity:	No classification.
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10.2. Chemical stability

Chemical stability:	Heating causes vaporisation and formation of ignitable atmosphere is possible.
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10.3. Possibility of hazardous reactions

Hazardous reactions:	Formation of explosive gas mixture with air possible. In case of unpropitious storing conditions (air admission, heat accumulation) self-ignition is possible for moistened solids (e.g. cloth, pulp, filter panel, binder).
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10.4. Conditions to avoid

Conditions to avoid:	Keep away from heat or flame. Use only in a well-ventilated area.
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10.5. Incompatible materials

Materials to avoid:	Oxidising agents, strong acids, strong alkalis.
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10.6. Hazardous decomposition product

Haz. decomp. products: No dangerous decomposition products expected by intended use.

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity, oral:	Not classified - Acute oral toxicity rat LD50 >10000mg/kg bw; NOAEL rats 600mg/kg bw/day.
Acute toxicity, inhalation:	No studies available (REACH dossier).
Acute toxicity, dermal:	Not classified - Acute dermal toxicity rabbit LD50 >20000mg/kg bw
Eye irritation:	Classified Eye Irrit.2, H319, due to constituents (at least 39% are H319) – test waived.
Skin irritation:	Classified Skin Irrit. 2, H315, due to constituents (at least 92% are H315) – test waived.
Skin sensitivity:	Classified Skin Sens. 1, H317, due to presence of Limonene at typical concentration of 43%.
Mutagenicity/carcinogenicity:	Not mutagenic (AMES test).
Fertility/reproduction:	Not enough evidence to classify bergamot oil for reproductive toxicity. Fertility: maternal and developmental NOAELs = 500mg/kg/day. Developmental tox: Reproscreening study in rats: NOAEL maternal and developmental = 365mg/kg bw/day.
STOT-single exposure:	Conclusive but not sufficient for classification, data lacking (ECHA C&L)
STOT-repeated exposure:	Conclusive but not sufficient for classification, data lacking (ECHA C&L)
Aspiration hazard:	Classified Asp. Tox. 1 – may cause lung damage if liquid enters airways (due to low viscosity of hydrocarbon content).

11.2. Information on other hazard classes which relates to endocrine disrupting properties

Other hazards: No information on other hazard classes specified.

Section 12: Ecological information

12.1. Toxicity

Fish:	Acute toxicity (96h-LL50) Oncorhynchus mykiss = 18mg/L
Algae:	72h-NOErLR and 72h-ErL50 Pseudokirchnerella subcapitata = 10 and 31mg/L respectively.
Aquatic invertebrates:	Acute toxicity (48h-EL50) Daphnia magna = 33mg/L.
Microorganisms:	No studies available (REACH dossier).
Terrestrial arthropods:	No studies available (REACH dossier).

12.2. Persistence and degradability

Persistence and degradability: Regarded as a readily biodegradable NCS. Study scientifically not necessary/other information available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No potential to cause toxic effects if accumulated (in higher organisms) via the food chain – BCF = 683L/kg ww.

12.4. Mobility in soil

Mobility: Not determined. No single value for adsorption. Range of log Koc values for the known constituents of Bergamot oil was found to be 1.69 - 4.90.

12.5. Results of PBT and vPvB assessment

PBT identification: The substance is not PBT/vPvB.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: Bergamot Oil is not on the ED-list (<https://edlists.org/the-ed-lists>) of endocrine disruptors meaning that it is not a substance identified as an endocrine disruptor at EU level (List I), a substance under evaluation for endocrine disruption under an EU legislation (List II) nor a substance considered, by the evaluating National Authority, to have endocrine disrupting properties (List III).

12.7. Other adverse effects

Other adverse effects: No information available (REACH dossier).

Section 13: Disposal considerations

13.1. Waste treatment methods

Product/packaging disposal: Product:
Recommendation: Recycling is preferred to disposal or burning. Disposal must be made according to official regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. European waste catalogue: e.g. 02 03 03 wastes from solvent extraction.

Uncleaned packaging:
Recommendation: Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning. Packaging that may not be cleansed are disposed of in the same manner as the product.

Contaminated solids:
Recommendation: Moistened solids (e.g. cloth, pulp, filter panels, binder) can be burnt after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. European waste catalogue: e.g. 15 02 02 Filter and absorption materials contaminated with hazardous agents.

Waste treatment – relevant information: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Sewage disposal – relevant information: Waste should not be disposed of by release to sewers.

13.2. Special precautions for landfill and incineration

Special precautions for landfill and incineration: Waste is suitable for incineration.

Section 14: Transport information

UN number: UN 1197
UN proper shipping name: Extracts, liquid for flavouring or aroma
Transport hazard class(es): 3
Packaging group: III
Transport labels:



Environmental hazards: See Section 2 Harmful to aquatic life with long lasting effects (limonene)
Special precautions for user: Dangerous Goods Note
 Product contains environmentally hazardous substances: d-limonene
 Tunnel Restriction code: 3 (D/E)
Maritime transport in bulk according to IMO instruments: UN 1197, extracts, liquid for flavouring or aroma
 IMDG Class 3, Packing group III. Extracts, EMS Number: F-E, S-D
 Aromatic Liquids (N.O.S), Harmful to aquatic life with long lasting effects (limonene)

Section 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716).

15.2. Chemical Safety Assessment

Chemical safety assessment: No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: Other information
16.1. Other information
Packaging:

Type	Suitability
Glass	Yes
Steel	Yes
Aluminium	Yes
F/HDPE	Yes
Stainless steel drum	Yes

Shelf life: 24 months when stored within advised conditions, re-test every 12 months thereafter for a possible further 24 months.

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.