



AMPHORA AROMATICS
LIMITED

essential oils, skincare & aromatherapy products

SAFETY DATA SHEET

1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: Lemon Essential Oil

SUPPLIER: Amphora Aromatics Limited, Airfield House, Western Drive, Bristol, BS14 0AF

TELEPHONE: +44 (0)117-9087770.

PRODUCT NUMBER: 27

CAS NUMBER: 84929-31-7

EC NUMBER: 284-515-8

INCI: Citrus Limonium peel extract

IDENTIFIED USES:

Industrial use: spray application of adhesives; use of construction chemicals; end use of washing and cleaning products; detergents and maintenance products; application of coatings or inks; solvent use; intermediate

Professional use: washing and cleaning agents; detergents and maintenance products; polishes and wax blends; spray application of adhesives; construction chemicals; coatings and inks; solvent use.

Consumer use: washing and cleaning products; air care products; polishes and wax blends; biocides; tobacco products; cosmetics

BIOLOGICAL DEFINITION: Cold pressed *citrus medica limonum* (Lemon) peel oil

2: HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

CAS: 84929-31-7

EC: 284-515-8

CLASSIFICATION (EC 1272/2008):

Flam. Liq. 3 – H226

Asp. Tox. 1 – H304

Skin Irritation (Cat. 2) – H315

Skin Sensitivity (Cat. 1) – H317

Aquatic Chronic (Cat 2) – H411

LABEL ELEMENTS

PICTOGRAM:



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

H411: Toxic to aquatic life with long lasting effects

SDS: 27 Lemon Essential Oil

Compiled by: Geoff Harris, Quality Control - Approved by Johndan Chilcott, Regulatory Affairs – Date: 18/06/2019 - Version: 5



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PRECAUTIONARY STATEMENTS:

P241: Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P273: Avoid release to the environment

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

P301 + P310: IF SWALLOWED: Immediately call a poison centre or doctor

P331: do NOT induce vomiting

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P405: Store locked up

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.

3: COMPOSITION/INFORMATION ON INGREDIENTS

Major components of mixture are:

60 to 70% Limonene

CAS NUMBER: 5989-27-5

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 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

10 to 16.5% beta-Pinene

CAS NUMBER: 127-91-3

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 242-060-2

Acute Aquatic 1 H400

Chronic Aquatic 1 H410

Skin Sens. 1B H317

Skin Irrit. 2 H315

Asp. Tox. 1 H304

Flam. Liq. 3 H226

8 to 12% γ-Terpinene

CAS NUMBER: 99-85-4

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 202-794-6

Flam. Liq. 3, H226

Asp. Tox. 1, H304

1.5 to 3.0% alpha-Pinene

CAS NUMBER: 80-56-8

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 201-291-9

Flam. Liq. 3, H226

Acute Tox 4, H302

Asp. Tox. 1, H304

Skin Irrit. 2, H315

Skin Sens. 1, H317

Aquatic Acute, H400



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0.4 to 2% Citral (Neral + Geranial)

CAS NUMBER: 5392-40-5

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 226-394-6

Skin Irrit. 2, H315

Skin Sens. 1B, H317

Eye Irrit. 2, H319

0.2 to 0.9% Beta-Bisabolen

CAS NUMBER: 495-61-4

CLASSIFICATION (EC 1272/2008):

EC NUMBER: 610-461-5

Asp. Tox. 1, H304

Skin Irrit. 2, H315

Skin Sens. 1, H317

4: FIRST AID MEASURES

INHALATION:

Attend to fresh air. In case of complaints seek medical attention.

INGESTION:

If swallowed, do not induce vomiting: call for medical help immediately.

SKIN CONTACT:

In case of contact with skin wash immediately with soap and water.

EYE CONTACT:

In case of contact with eyes rinse thoroughly with water.

GENERAL INFORMATION:

If health disorder happens, call for medical help immediately.

Immediately remove any soiled clothing

SELF PROTECTION OF FIRST AIDER:

Use personal protective equipment as described in section 8 if substance is present

MOST IMPORTANT SYMPTOMS AND EFFECTS,
BOTH ACUTE AND DELAYED:

Stinging sensation

5: FIREFIGHTING MEASURES

EXTINGUISHING MEDIA RECOMMENDED:

Suitable extinguishing agents: CO₂, alcohol resistant foam

SPECIAL MEASURES:

Carbon monoxide (CO) Carbon dioxide (CO₂) Smoke and soot. Vapours may form explosive mixture with air

ADVICE FOR FIREFIGHTERS:

Protective equipment: Wear self-contained breathing apparatus and protective suits.

EMERGENCY ACTION CODE:

3[Y] (Foam + BA & Fire Kit)

6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Follow safety measures in chapter "Handling and Storage" and "Exposure controls/personal protection".

ENVIRONMENT PRECAUTIONS:

Wear protective equipment. Keep unprotected persons away.

Do not allow to enter canalisation /waterways/ groundwater.

Inform respective authorities in case of seepage into water course or sewage system.

CLEANING UP METHODS FOR SPILLAGES:

Soak up with absorbent, inert material (sand, universal binders) and dispose of contaminated material as waste according to section 13.

Dispose of in accordance with federal, state and local environmental regulations.



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7: HANDLING AND STORAGE

USAGE PRECAUTIONS:

- INFORMATION ON SAFE HANDLING:
- INFORMATION ON FIRE AND EXPLOSION PROTECTION:

STORAGE PRECAUTIONS:

Use only in well ventilated area. Avoid contact with skin, eyes and clothing

Keep away from possible sources of ignition. No smoking
Store in well filled tight suitable containers; drums should only be considered as a means of transportation.
Do not store with flammable or explosive materials and strong oxidizing agents.
Keep drums tightly closed. Store dark, dry and under cold temperatures. Protect against warming / overheating. Recommended storage temperature: 8°-12°C.

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



APPROPRIATE ENGINEERING CONTROLS:

EYE/FACE PROTECTION:

HAND PROTECTION:

HYGIENE MEASURES:

RESPIRATORY PROTECTION:

BODY PROTECTION:

Use only in well-ventilated area.
Ingredients with limit values that require monitoring at workplace:
CAS 5989-27-5 (R) – p-mentha-1,8-diene (Limonene)
Tightly sealed goggles
Use protective gloves. The material of the gloves has to be impermeable and resistant to the product/the substance/the preparation/the chemical mixture.
However, due to the missing information available because no tests have been conducted, the choice of the material of the gloves should take into account the penetration time, rates of diffusion and the degradation.
Breakthrough time of the glove material: The penetration time of the glove material must be set by the manufacturer of the protective gloves according to the substance/the preparation/the chemical mixture.
No eating, drinking and smoking during work. Avoid contact with the eyes and skin. Remove contaminated clothing. Wash hands thoroughly before breaks and at the end of the working day.
Wear suitable respiratory equipment in case of insufficient ventilation.
Protective work clothing.



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9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------|---|
| APPEARANCE: | Clear mobile liquid which may become cloudy by lowering the temperature |
| COLOUR: | From pale yellow to dark green |
| ODOUR: | Characteristic of fresh lemon pericarp |
| FLASH POINT °C: | 53.5 - Pinsky Martens Closed Cup method |
| SPECIFIC GRAVITY @ 20°C: | 0.849 to 0.858 g/ml |
| REFRACTIVE INDEX @ 20°C: | 1.4730 to 1.4760 |
| SOLUBILITY: | Soluble in alcohol. In water: 0.5 – 1767mg/l @ 25°C |
| BOILING POINT °C: | 162 -194 |
| VAPOUR PRESSURE PA @25°C: | 186.4 |
| FREEZING POINT: | Not determined. |

10: STABILITY AND REACTIVITY

| | |
|-------------------------------------|--|
| REACTIVITY: | No classification |
| CHEMICAL STABILITY | Product is stable under recommended storage conditions. |
| POSSIBILITY OF 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). |
| CONDITIONS TO AVOID: | Direct source of heat. |
| INCOMPATIBLE MATERIALS: | Oxidising Agents, strong acids, strong alkalis |
| HAZARDOUS DECOMPOSITION PRODUCTS: | No dangerous decomposition known. |

11: TOXICOLOGICAL INFORMATION (Historical data – we do not carry out animal testing)

| | |
|-------------------------|---|
| ORAL: | Acute oral toxicity Wistar rat LD50 >5000mg/kg bw |
| EYE: | Not irritating, CLP criteria not met |
| INHALATION: | No study available |
| SKIN: | Acute dermal toxicity NZ white rabbit LD50 >5000mg/kg bw |
| SKIN IRRITATION: | Not irritating, no study available |
| SKIN SENSITIVITY: | Skin sensitiser (d-limonene), no study available |
| MUTAGENICITY: | Not mutagenic |
| FERTILITY/REPRODUCTION: | Not enough evidence to classify orange oil for developmental toxicity |

12: ECOLOGICAL INFORMATION

| | |
|-------------------------------------|---|
| TOXICITY: | Fish Toxicity: Danio rerio, 96h-EL50 WAF test = 5.65 mg/L Algae WAF loading rate: EL50 ~ 150 mg/l Daphnia acute toxicity: 48h-EL50 = 1.1 mg/L |
| PERSISTENCE AND DEGRADABILITY: | Biodegradability: Regarded as a readily biodegradable NCS. |
| BIOACCUMULATIVE POTENTIAL: | Range of log BCF values for known constituents = 1.502 - 2.597 (BCF 32 - 395) |
| MOBILITY IN SOIL: | Not determined |
| RESULTS OF PBT AND VPVB ASSESSMENT: | The substance is not PBT / vPvB |



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13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

If recycling is not possible, dispose in accordance with federal, state and local environmental regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

14: TRANSPORT INFORMATION

UN NUMBER:

UN1169

PROPER SHIPPING NAME:

Extracts, aromatic, liquid

TRANSPORT HAZARD CLASS(ES):

3



PACKING GROUP:

III

ENVIRONMENTAL HAZARDS:

See section 2



SPECIAL PRECAUTIONS FOR USER:

Dangerous Goods Note.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE:

15: REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)

CHEMICAL SAFETY ASSESSMENT:

Chesar

16: OTHER INFORMATION

PACKAGING

| Type | Suitability |
|----------------------|-------------|
| Glass | Yes |
| Steel | Yes |
| Aluminium | Yes |
| F/HDPW | No |
| Stainless steel drum | Ideal |

SHELF LIFE

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



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Q.C. REQUIREMENTS.

In-line with general product specification. Always satisfy suitability for specific application.

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding its' correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.