



**AMPHORA AROMATICS
LIMITED**

essential oils, skincare & aromatherapy products

SAFETY DATA SHEET

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

PRODUCT NAME: **Orange Essential Oil**

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

TELEPHONE: +44 (0)117-9087770.

PRODUCT NUMBER: **40**

CAS NUMBER: 8028-48-6

EC NUMBER: 232-433-8

INCI: Citrus aurantium dulcis peel oil, expressed

IDENTIFIED USES:

- Industrial use: solvents in oil field drilling and production operations; laboratory setting, including pilot plants; spray coating, indoor use – point sources – solids; fragranced products; solvents in paper, board & related products / woodworking / leather / textile / transportation / adhesives / others; lubricants; washing & cleaning products; construction chemicals; coatings & inks; detergents & maintenance products
- Professional use: washing and cleaning products; detergents and maintenance products; polishes and wax blends; solvent use; spray application of adhesives; construction chemicals; coatings and inks
- Consumer use: washing and cleaning products; coatings/inks, lubricants, construction chemicals; air care products; polishes and wax blends; biocides; fragrances, cosmetics, detergents/maintenance products and laboratory agents; inclusion into / onto a matrix;

2: HAZARDS IDENTIFICATION

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

SDS: **40 Orange Essential Oil**

Compiled by: Geoffrey Harris, Quality Control - Approved by Johndan Chilcott, Regulatory Affairs Date: 29/07/2019 - Version: 3



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| 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 |
| 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 P262: Do not get in eyes, on skin, or on clothing P301 + P310: IF SWALLOWED: Immediately call a poison centre or doctor P331: do NOT induce vomiting P333 + P313: If skin irritated or rash occurs: Get medical advice/attention. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P363: Wash contaminated clothing before reuse P391: Collect spillage P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed 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. |
| OTHER HAZARDS:: | All essential oils are highly concentrated so have strong aromas and colour that can stain. Sweet Orange Oil contains over 11% Hydrocarbons (99%). 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. |

3: COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| LIMONENE | 93-96% |
| CAS NUMBER: 5989-27-5 | EC NUMBER: 227-813-5 |
| CLASSIFICATION (EC 1272/2008): | Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |



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| MYRCENE | | 1.3-3.5% |
| CAS NUMBER: 123-35-3 | EC NUMBER: 204-622-5 | |
| CLASSIFICATION (EC 1272/2008): | Eye Irrit. 2 H319 Skin Irrit. 2 H315 Asp. Tox. 1 H304 Flam. Liquid 3 H226 Acute Aquatic 1 H400 Chronic Aquatic 2 H411 | |
| ALPHA-PINENE | | 0.4-0.8% |
| CAS NUMBER: 80-56-8 | EC NUMBER: 201-291-9 | |
| CLASSIFICATION (EC 1272/2008): | Flam. Liq. 3, H226 Acute Tox 4, H302 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute, H400 | |
| LINALOOL | | 0.15-0.7% |
| CAS NUMBER: 78-70-6 | EC NUMBER: 201-134-4 | |
| CLASSIFICATION (EC 1272/2008): | Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Irrit. 2, H319 | |
| SABINENE | | 0-0.5% |
| CAS NUMBER: 3387-41-5 | EC NUMBER: 222-212-4 | |
| CLASSIFICATION (EC 1272/2008): | Flam. Liq. 3, H226 Asp. Tox. 1, H304 | |
| BETA-PINENE | | 0-0.5% |
| CAS NUMBER: 127-91-3 | EC NUMBER: 242-060-2 | |
| CLASSIFICATION (EC 1272/2008): | Acute Aquatic 1 H400 Chronic Aquatic 1 H410 Skin Sens. 1B H317 Skin Irrit. 2 H315 Asp. Tox. 1 H304 Flam. Liq. 3 H226 | |
| N-OCTANAL | | 0.1-0.4% |
| CAS NUMBER: 124-13-0 | EC NUMBER: 204-683-8 | |
| CLASSIFICATION (EC 1272/2008): | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.



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4: FIRST AID MEASURES

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| INHALATION: | Supply fresh air and to be sure call for a doctor. In case unconsciousness place patient stably in side position for transportation. |
| INGESTION: | Do not induce vomiting; call for medical help immediately. |
| SKIN CONTACT: | Immediately wash with water and soap and rinse thoroughly. |
| EYE CONTACT: | Rinse opened eye for several minutes under running 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 |
| INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: | No specific first aid measures noted |

5: FIREFIGHTING MEASURES

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|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXTINGUISHING MEDIA RECOMMENDED: | Suitable extinguishing agents: CO ₂ , alcohol resistant foam, powder, water spray. Do NOT use water with full jet. |
| SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: | Carbon monoxide (CO) Carbon dioxide (CO ₂) Smoke and soot. |
| ADVICE FOR FIREFIGHTERS: | Protective equipment: Wear self-contained respiratory protective device. Wear self-contained respiratory protective device. Cool endangered receptacles with water spray. Collect contaminated firefighting water separately. It must not enter the sewage system. Dispose of fire debris and contaminated firefighting water in accordance with official regulations |
| EMERGENCY ACTION CODE: | 3[Y] (Foam + BA & Fire Kit) |

6: ACCIDENTAL RELEASE MEASURES

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|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSONAL PRECAUTIONS: | Follow safety measures in chapter "Handling and Storage" and "Exposure controls/personal protection". Wear protective equipment. Keep unprotected persons away. |
| ENVIRONMENT PRECAUTIONS: | Do not allow to penetrate the ground/soil. Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water. |
| CLEANING UP METHODS FOR SPILLAGES: | Wipe up little amounts with absorbent material like cloth or pulp. Water and cleansing agent Absorb with incombustible liquid-binding material (sand, diatomite, universal binders). Dispose of contaminated material as waste according to "Disposal considerations". Ensure adequate ventilation. Keep ignition source away, do not smoke and avoid flames. |



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7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Personal protection equipment - see point "Exposure controls/personal protection". Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Fumes can combine with air to form an explosive mixture. Moistened solids (e.g. cloth, pulp, filter panel, binder) have to be stored hermetically sealed and/or watered and properly disposed. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles. Provide solvent resistant, sealed floor. Store away from oxidising agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed receptacles. Storage class: 3 Classification according to Betriebsicherheitsverordnung (BetrSichV): Flammable liquid

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



APPROPRIATE ENGINEERING CONTROLS:

Use only in well-ventilated area. Keep away from: foodstuffs, beverages, animal feed.

EYE/FACE PROTECTION:

Tightly sealed goggles according to EN 166:2001

HAND PROTECTION:

Preventive skin protection by use of skin-protecting agents - eg. Nitrile rubber, NBR - is recommended. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Penetration time of glove material > 480 minutes at layer thickness of 0.425 millimeter (Sol-Vex 37-695/Ansell).

OTHER SKIN AND BODY PROTECTION:

Protective work clothing

RESPIRATORY PROTECTION:

Suitable respiratory protection: filter class A2 (brown colour) Use the rules for application of respiratory protection systems. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.



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9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------|-------------------------------------------------------------|
| APPEARANCE: | Clear mobile liquid |
| COLOUR: | Yellow, orange or deep orange |
| ODOUR: | Characteristic of the outer part of fresh sweet orange peel |
| FLASH POINT °C: | 53.4°C - Pensky Martens Closed Cup method |
| REFRACTIVE INDEX @ 20°C: | 1.470 to 1.476 |
| SOLUBLE: | Soluble in alcohol; Water, 3.48 – 1767.3mg/l at 25°C |
| BOILING POINT: | 160°C |
| BOILING POINT RANGE: | 160- 178°C |
| VAPOUR PRESSURE : | 186.4 Pa at 25 °C |

10: STABILITY AND REACTIVITY

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|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REACTIVITY: | No classification |
| CHEMICAL STABILITY: | Heating causes vaporisation and formation of ignitable atmosphere is possible. |
| 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: | Keep away from heat or flame. Use only in a well-ventilated area. |
| INCOMPATIBLE MATERIALS: | Oxidising Agents, strong acids, strong alkalis |
| HAZARDOUS DECOMPOSITION PRODUCTS: | No dangerous decomposition products expected by intended use. |

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 |



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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. Study scientifically not necessary / other information available.

BIOACCUMULATIVE POTENTIAL:

Range of log BCF values for known constituents = 1.502 - 2.597 (BCF 32 - 395); for d-limonene, BCF is 361 for >60% (typical 80%) of the NCS

MOBILITY IN SOIL:

Not determined

RESULTS OF PBT AND vPvB ASSESSMENT:

The substance is not PBT / vPvB

13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

- PRODUCT: 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.
- UNCLEANNED PACKAGING: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are disposed of in the same manner as the product.
- CONTAMINATED SOLIDS: 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.



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14: TRANSPORT INFORMATION

UN No. ROAD: 2319
PROPER SHIPPING NAME: Terpene Hydrocarbons (N.O.S)
TRANSPORT HAZARD CLASS(ES): 3



PACKING GROUP: III
ENVIRONMENTAL HAZARDS: See section 2



SPECIAL PRECAUTIONS FOR USER: Dangerous Goods Note
Product contains environmentally hazardous substances: d-limonene
TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE: No data.

15: REGULATORY INFORMATION

STATUTORY INSTRUMENTS: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)
CHEMICAL SAFETY ASSESSMENT: Chesar

16: OTHER INFORMATION

PACKAGING

| <u>TYPE</u> | <u>SUITABILITY</u> |
|----------------------|--------------------|
| Glass | Yes |
| Steel | Yes |
| Aluminium | Yes |
| F/HDPE | No |
| Stainless steel drum | Ideal |

Q.C. REQUIREMENTS.

In-line with general product specification. Always satisfy suitability for specific application.
Retest after 6 months.

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.

SDS: **40 Orange Essential Oil**

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