01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

1.1 Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Orange Oil Bitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Definition</td>
<td>Citrus Aurantium Amara Peel Oil is an essential oil expressed from the fresh epicarps of the Sour Orange, Citrus aurantium, Rutaceae. It contains D-limonene (about 90%), citral, decanaldehyde, methyl anthranilate, linalool, terpineol</td>
</tr>
<tr>
<td>INCI Name</td>
<td>Citrus Aurantium Amara Peel Oil</td>
</tr>
<tr>
<td>Synonyms &amp; Trade Names</td>
<td>-</td>
</tr>
<tr>
<td>CAS-No</td>
<td>72968-50-4 / 68916-04-1</td>
</tr>
<tr>
<td>EC No.</td>
<td>277-143-2</td>
</tr>
<tr>
<td>EINECS No.</td>
<td>277-143-2</td>
</tr>
</tbody>
</table>

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

No additional data available.

1.3 Details of the supplier of the safety data sheet

Oils4life Limited, 26 Blake Drive, Bradwell, Great Yarmouth, Norfolk, NR31 9GW.

1.4 Emergency Tel. No. 01493 600045

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

- **Human health** - Irritating to eyes and skin May be fatal if swallowed and enters airways.
- **Environment** - The product contains a substance which may cause long term adverse effects in the aquatic environment.
- **Physical and Chemical Hazards** - This product is flammable

Hydrocarbon Content – 97%

Classification (EC 1272/2008)

- Physical and Chemical Hazards Flam. Liqu. 3 - H226
- Human health Skin Irrit. 2 - H315; Skin Sens. 1 - H317; Asp. Tox. 1 - H304
- Environment Aquatic Acute 2 - H401; Aquatic Chronic 2

2.2 Label Elements

Label in accordance with (EC) No 1272/2008

- **Signal Word** Danger
- **Contains** d-Limonene, pinenes
- **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.  
| H401 | Toxic to aquatic life.  
| H411 | Toxic to aquatic life with long lasting effects  

**Precautionary Statements**

| none |

**Supplementary Precautionary Statements**

| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
| P233 | Keep container tightly closed.  
| P240 | Ground/bond container and receiving equipment.  
| P241 | Use explosion-proof electrical equipment.  
| P242 | Use only non-sparking tools.  
| P243 | Take precautionary measures against static discharge.  
| P272 | Contaminated work clothing should not be allowed out of the workplace.  
| P273 | Avoid release to the environment.  
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.  
| P261 | Avoid breathing vapour/spray.  
| P264 | Wash contaminated skin thoroughly after handling.  
| P321 | Specific treatment (see medical advice on this label).  
| P370+378 | In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.  
| P301+310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
| 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.  
| P31 | 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.  
| P362 | Take off contaminated clothing and wash before reuse.  
| P363 | Wash contaminated clothing before reuse.  
| P391 | Collect spillage.  
| P403+235 | Store in a well-ventilated place. Keep cool.  
| P405 | Store locked up.  
| P501 | Dispose of contents/container to ...  

### 2.3 Other Hazards

| PBT or vPvB according to Annex XIII | No additional data available  
| Adverse physio-chemical properties | No additional data available  
| Adverse effects on human health | No additional data available  

### 03. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

| 60-100% d-Limonene | CAS-No.: 5989-27-5 EC No.: 227-813-5  

| 1-5% Myrcene (7-methyl-3-methyleneocta-1,6-diene) | CAS-No.: 123-35-3 EC No.: 204-622-5  

| 1-5% Pinenes | CAS-No.: 80-56-8 EC No.: 201-291-9  

### 04. FIRST AID MEASURES

#### 4.1 Description of first aid measures
**Inhalation**  
Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Remove victim immediately from source of exposure. Seek medical attention.

**Ingestion**  
Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING!

**Skin Contact**  
Remove contaminated clothing immediately and wash skin with soap and water. Seek medical attention if irritation or symptoms persist.

**Eye Contact**  
Remove immediately from source of exposure. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. If symptoms persist seek medical attention.

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

No additional data available

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

Treat symptomatically

## 05. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing Media

Extinguishing media; Carbon dioxide (CO₂). Foam.

Unsuitable extinguishing media; water

### 5.2 Special hazards arising from the product

When heated to decomposition, it emits acrid smoke as well as carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Wear full protective clothing. Wear suitable respiratory equipment when necessary.

## 06. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2 Environmental Precautions

Do not discharge into drains, water courses or onto the ground.

### 6.3 Methods and material for containment and cleaning up.

Cover with an inert, inorganic, non-combustible absorbent material (e.g dry-lime, sand, soda ash). Place in covered containers using non-sparking tools and transport outdoors. Avoid open flames or courses of ignition. Ventilate area and wash spill site after material pickup is complete. Dispose of in accordance with current laws and regulations.

### 6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

## 07. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid spilling. Avoid skin and eye contact. Ensure adequate ventilation of the working area. Adopt best manual handling considerations when handling, carrying and dispensing. Keep away from heat, sparks and open flame.
7.2 Conditions for safe storage, including any incompatibilities

Keep product in its original container well sealed, in a dry, ventilated area, away from potential sources of ignition and protected from light. Stock according to local / national regulations and always follow the precautions indicated on labels.

7.3 Specific end use(s)

No additional data available.

## 08. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

No additional data available.

### 8.2 Exposure controls

**Protective Equipment**

<table>
<thead>
<tr>
<th>Process Conditions</th>
<th>Provide eyewash station.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Measures</td>
<td>Provide adequate ventilation.</td>
</tr>
<tr>
<td>Respiratory Equipment</td>
<td>Self contained breathing apparatus</td>
</tr>
<tr>
<td>Hand Protection</td>
<td>Chemical resistant gloves (PVC)</td>
</tr>
<tr>
<td>Eye Protection</td>
<td>Wear approved safety goggles.</td>
</tr>
<tr>
<td>Other Protection</td>
<td>Wear appropriate clothing to prevent any possibility of skin contact.</td>
</tr>
<tr>
<td>Hygiene Measures</td>
<td>Good personal hygiene practices are always advisable, especially when working with chemicals / oils.</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>Avoid inhalation and contact with skin and eyes</td>
</tr>
<tr>
<td>Skin Protection</td>
<td>Wear apron or protective clothing in case of splashes.</td>
</tr>
<tr>
<td>Environmental Exposure Controls</td>
<td>Avoid discharging into drainage water. Only eliminate by authorised companies.</td>
</tr>
</tbody>
</table>

## 09. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| Appearance | Liquid |
| Colour | No additional data available. |
| Odour | Fruity, pleasant |
| Relative Density | 0.840 - 0.860 @ 20°C |
| Flash Point (°C) | 47°C |
| Refractive Index | 1.472 - 1.476 @ 20°C |
| Melting Point (°C) | No additional data available. |
| Boiling Point (°C) | No additional data available. |
| Vapour Pressure | No additional data available. |
| Solubility in Water @20°C | No additional data available. |
| Auto-ignition temperature (°C) | No additional data available. |

### 9.2 Other information

No additional data available.
10. STABILITY AND REACTIVITY

10.1 Reactivity

No additional data available

10.2 Chemical stability

Stable under the recommended handling and storage conditions.

10.3 Possible hazardous reactions

No additional data available

10.4 Conditions to Avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Materials To Avoid: strong oxidising agents

10.6 Hazardous Decomposition Products

No additional data available

11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Skin corrosion / irritation

May cause sensitisation by skin contact. May cause discomfort if swallowed.

Serious eye damage / irritation

Spray and vapour in the eyes may cause irritation and smarting.

Respiratory or skin sensitisation

In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Germ Cell Mutagenicity

No additional data available

Carcinogenicity

No additional data available

Reproductive toxicity

No additional data available

STOT-single exposure

No additional data available

STOT-repeated exposure

No additional data available

Aspiration hazard

No additional data available

Photo-toxicity

No additional data available

Other Information

No additional data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No additional data available

12.2 Persistence & degradability

No additional data available

12.3 Bioaccumulation Potential

No additional data available

12.4 Mobility in soil

No additional data available

12.5 Results of PBT and vPvB Assessment

No additional data available

12.6 Other adverse effects

No additional data available
Do not allow product to enter streams, sewers or other waterways.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

Dispose of in compliance with all local and national regulations.

### 14. TRANSPORT INFORMATION

#### 14.1 UN number

| UN No. Road | 1169 Road/rail transport notes - Avoid releasing into the environment |
| UN No. SEA | 1169 Sea transport notes - do not release into the environment |
| UN No. AIR | 1169 |

#### 14.2 UN proper shipping name

EXTRACTS, AROMATIC, LIQUID

#### 14.3 Transport hazard class(es)

| ADR/RID/ADN Class | 3 |
| IMDG Class | 3 |
| ICAO Class/Division | 3 |

Transport Labels

![Flammable Liquid](image)

#### 14.4 Packing group

| ADR/RID/ADN Packing group | III |
| IMDG Packing group | III |
| ICAO Packing group | III |

#### 14.5 Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

![Environmentally Hazardous Substance](image)

#### 14.6 Special precautions for user

**Emergency Action Code 3Y**

Hazard No. (ADR) 30 Flammable liquid (flash-point between 23°C and 60°C, inclusive) or flammable liquid or solid in the molten state with a flash-point above 60°C, heated to a temperature equal to or above its flash-point, or self heating liquid.

Tunnel Restriction Code (D/E)

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Tariff Number 33011210
15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>Guidance Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIP for everyone HSG(108).</td>
</tr>
<tr>
<td>EU Legislation</td>
</tr>
</tbody>
</table>

15.2 Chemical safety assessment

| No additional safety assessment available. |

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Hazard and/or Precautionary Statements in Full</th>
<th>H319 Causes serious eye irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H315 Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td>H226 Flammable liquid and vapour.</td>
</tr>
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<td></td>
<td>H304 May be fatal if swallowed and enters airways.</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>H401 Toxic to aquatic life.</td>
</tr>
<tr>
<td></td>
<td>H410 Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td></td>
<td>H400 Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Information</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>24/06/15</td>
</tr>
<tr>
<td>Reason for revision</td>
<td>New SDS</td>
</tr>
<tr>
<td>Rev No/Repl, SDS Generated</td>
<td>01</td>
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