



Life - Health - Beauty

# Certificate of Analysis

## PRODUCT DETAILS

|                       |   |                      |  |
|-----------------------|---|----------------------|--|
| Product Name          | CITRONELLA JAVA OIL   |                      |  |
| Product Code          | OECITR  |                      |  |
| INCI Name             | Cymbopogon  |                      |  |
| Batch Number          | 4365805   |                      |  |
| Best Before End       | July 2022   |                      |  |
| Manufacturing Process | Steam distillation of the freshly cut or partially dried grasses of Cymbopogon Winterianus. |                      |  |
| Identification        | CAS No: 91771-61-8  | EINECS No: 294-954-7 |  |
|                       | Alternative Cas: 8000-29-1  | FEMA No: 2308        |  |
|                       | CoE: 39   | FDA No: 182.20       |  |

## PHYSICAL AND CHEMICAL CHARACTERISTIC

|                         | SPECIFICATION RANGE | RESULTS  |
|-------------------------|---------------------|----------|
| Appearance              | Liquid              | Conforms |
| Colour                  | Pale yellow         | Conforms |
| Odour                   | Characteristic      | Conforms |
| Relative Density @ 20°C | 0.850 - 0.950       | 0.8836   |
| Refractive Index @ 20°C | 1.450 - 1.490       | 1.4674   |

## MAIN CONSTITUENTS

| CONSTITUENT RANGE       | RESULTS       | CONSTITUENT RANGE             | RESULTS       | CONSTITUENTS RANGE                      | RESULTS       |
|-------------------------|---------------|-------------------------------|---------------|---|---------------|
| (+) - Citronellal 7-43% | <b>38.40%</b> | Geraniol 19-49%               | <b>23.40%</b> | Citronellol 8-14%                       | <b>11.50%</b> |
| Limonene 1.5-5%         | <b>5.10%</b>  | Geranyl Acetate 2-4%          | <b>3.30%</b>  | Muurolol (T&A) <0.01-3%                 | <b>0.70%</b>  |
| Elemol 0.5-5%           | <b>1.70%</b>  | Citronellyl Acetate 1-4%      | <b>2.00%</b>  | Cadinenes (alpha, beta&gamma) 1-5%      | <b>1.10%</b>  |
| Germacrene D 0.50-3%    | <b>1.90%</b>  | Elemene Beta 0.50-3%          | <b>0.20%</b>  | Neo Iso Pulegol 0.50-3%                 | <b>0.60%</b>  |
| Iso Pulegol <0.01-2%    | <b>0.60%</b>  | Eugenol 0.50-1.50%            | <b>0.10%</b>  | Geranial <0.01-11%                      | <b>ND</b>     |
| Linalool <0.01-2%       | <b>0.80%</b>  | Nerol <0.01-1%                | <b>0%</b>     | Neryl Acetate <0.01-<1%                 | <b>0.80%</b>  |
| Farnseol <0.01-<1%      | <b>0.10%</b>  | Beta Caryophyllene <0.01-3.5% | <b>0.10%</b>  | Terpineol (alpha, beta&gamma) <0.01-<1% | <b>ND</b>     |
| DL Borneol <0.01-<1%    | <b>0.20%</b>  | Decanal <0.01-<1%             | <b>0.10%</b>  | Sabiene <0.01-<1%                       | <b>0.13%</b>  |
| Myrcene <0.01-<1%       | <b>0.08%</b>  | A Terpinolene <0.01-<1%       | <b>0.10%</b>  | Beta Phellandrene <0.01-<1%             | <b>0.10%</b>  |
| Alpha Pinene <0.01-<1%  | <b>0.06%</b>  | P-Cymene <0.01-<1%            | <b>ND</b>     | Cis-beta-Ocimene <0.01-<1%              | <b>ND</b>     |

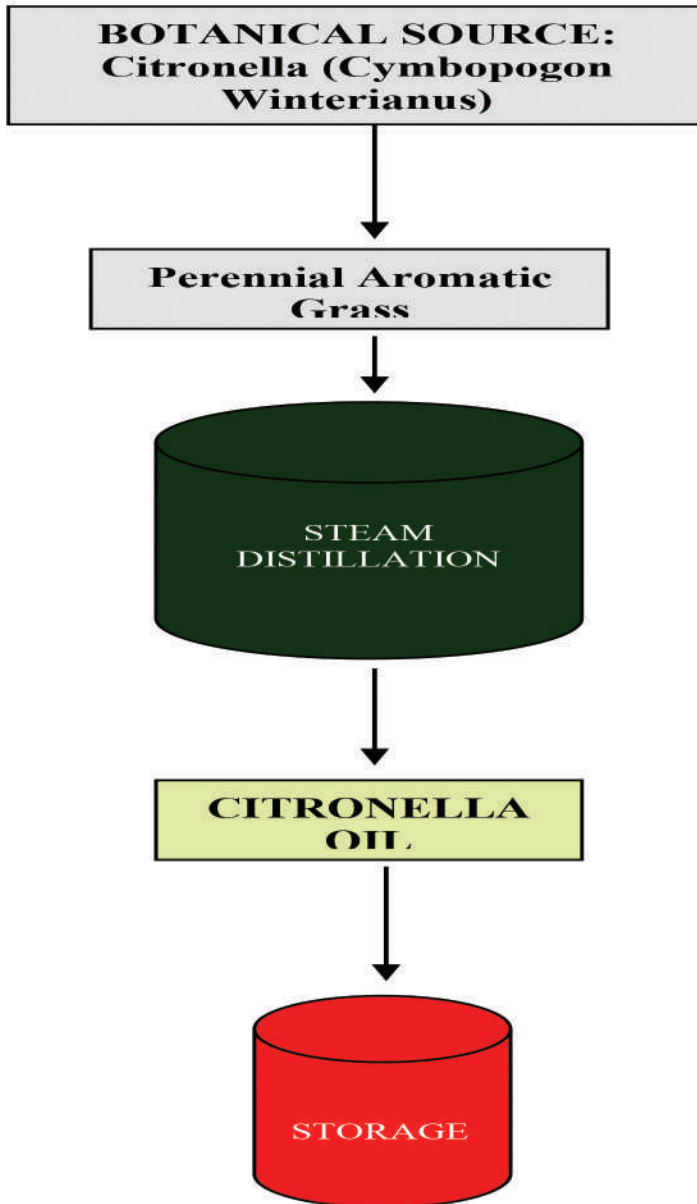
## STORAGE AND SHELF LIFE

|            |   |
|------------|---|
| Storage    | Store in tightly closed container with minimum headspace in a cool, dark and dry place. |
| Shelf Life | 36 months unopened and stored as above.   |

**DISCLAIMER:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the Company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR Corporation make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

Issue No: 1

## **CITRONELLA JAVA OIL FLOW CHART**





## SAFETY DATA SHEET CITRONELLA JAVA OIL

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

|                           |                        |
|---------------------------|------------------------|
| Product name              | CITRONELLA JAVA OIL    |
| Product number            | OECITR                 |
| Synonyms; trade names     | Cymbopogon Winterianus |
| REACH registration number | 01-2120741487-48-XXXX  |
| CAS number                | 91771-61-8             |
| EC number                 | 294-954-7              |

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

|                 |   |
|-----------------|---|
| Identified uses | Suitable for use in cosmetics,, fragrances, flavourings and professional applications only. |
|-----------------|---|

#### 1.3. Details of the supplier of the safety data sheet

|          |  |
|----------|--|
| Supplier | MADAR Corporation Limited<br>19-20 Sandleheath Industrial Estate<br>Fordingbridge<br>Hampshire<br>SP6 1PA<br><br>Tel. +44 1425 655555 (Opening Hours 9am - 5pm)<br><br>e-mail sales@madarcorporation.co.uk |
|----------|--|

#### 1.4. Emergency telephone number

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

|                       |  |
|-----------------------|--|
| Physical hazards      | Not Classified   |
| Health hazards        | Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Asp. Tox. 1 - H304   |
| Environmental hazards | Aquatic Chronic 2 - H411   |
| Human health          | Causes serious eye irritation May irritate eyes and skin. Fatal if swallowed   |
| Environmental         | The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. |

#### 2.2. Label elements

|           |           |
|-----------|-----------|
| EC number | 294-954-7 |
|-----------|-----------|

## CITRONELLA JAVA OIL



## Hazard pictograms



## Signal word

Danger

## Hazard statements

H302 Harmful if swallowed.  
 H318 Causes serious eye damage.  
 H317 May cause an allergic skin reaction.  
 H411 Toxic to aquatic life with long lasting effects.  
 H304 May be fatal if swallowed and enters airways.

## Precautionary statements

P261 Avoid breathing vapour/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 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.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P321 Specific treatment (see medical advice on this label).  
 P330 Rinse mouth.  
 P331 Do NOT induce vomiting.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

## Contains

(+)-Citronellal, Geraniol, Citronellol, (R)-p-mentha-1,8-diene, Geranyl Acetate, Elemol, Neo Iso Pulegol, Iso Pulegol, Eugenol, Geranial, Linalool, Nerol, Neryl Acetate, Farnesol, Beta Caryophyllene

## 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

## 3.2. Mixtures

(+)-Citronellal

7-43%

CAS number: 2385-77-5

EC number: 219-194-5

## Classification

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Skin Sens. 1B - H317

## CITRONELLA JAVA OIL



**Geraniol** 19-49%

CAS number: 106-24-1

EC number: 203-377-1

**Classification**

Skin Irrit. 2 - H315

Eye Dam. 1 - H318

Skin Sens. 1 - H317

**Citronellol** 8-14%

CAS number: 106-22-9

EC number: 203-375-0

**Classification**

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Skin Sens. 1 - H317

**(R)-p-mentha-1,8-diene** 1.5 - 5%

CAS number: 5989-27-5

EC number: 227-813-5

M factor (Acute) = 1

**Classification**

Flam. Liq. 3 - H226

Skin Irrit. 2 - H315

Skin Sens. 1 - H317

Asp. Tox. 1 - H304

Aquatic Acute 1 - H400

Aquatic Chronic 3 - H412

**Geranyl Acetate** 2 - 4%

CAS number: 105-87-3

EC number: 203-341-5

**Classification**

Skin Irrit. 2 - H315

Skin Sens. 1B - H317

Aquatic Chronic 3 - H412

**Elemol** 0.5-5%

CAS number: 639-99-6

EC number: 245-842-1

**Classification**

Skin Irrit. 2 - H315

Skin Sens. 1 - H317

Aquatic Chronic 2 - H411

## CITRONELLA JAVA OIL

**Citronellyl Acetate**

1-4%

CAS number: 150-84-5

EC number: 205-775-0

**Classification**

Skin Irrit. 2 - H315

Aquatic Chronic 2 - H411

**Neo Iso Pulegol**

0.50-3%

CAS number: 96612-21-4

**Classification**

Acute Tox. 4 - H302

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

**Iso Pulegol**

&lt;0.01-2%

CAS number: 89-79-2

EC number: 201-940-6

**Classification**

Acute Tox. 4 - H302

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

**Eugenol**

0.50-1.50%

CAS number: 97-53-0

EC number: 202-589-1

**Classification**

Eye Irrit. 2 - H319

Skin Sens. 1 - H317

Asp. Tox. 1 - H304

**Geranial**

&lt;0.01-11%

CAS number: 141-27-5

EC number: 205-476-5

**Classification**

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Skin Sens. 1 - H317

**Linalool**

&lt;0.01-2%

CAS number: 78-70-6

EC number: 201-134-4

**Classification**

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Skin Sens. 1 - H317

## CITRONELLA JAVA OIL



|                           |                        |                        |
|---------------------------|------------------------|------------------------|
| <b>Nerol</b>              |                        | <b>&lt;0.01-&lt;1%</b> |
| CAS number: 106-25-2      | EC number: 203-378-7   |                        |
| <b>Classification</b>     |                        |                        |
| Skin Irrit. 2 - H315      |                        |                        |
| Eye Dam. 1 - H318         |                        |                        |
| Skin Sens. 1 - H317       |                        |                        |
| <b>Neryl Acetate</b>      |                        | <b>&lt;0.01-&lt;1%</b> |
| CAS number: 141-12-8      | EC number: 205-459-2   |                        |
| <b>Classification</b>     |                        |                        |
| Skin Sens. 1 - H317       |                        |                        |
| <b>Farnesol</b>           |                        | <b>&lt;0.01-&lt;1%</b> |
| CAS number: 4602-84-0     | EC number: 225-004-1   |                        |
| M factor (Acute) = 1      | M factor (Chronic) = 1 |                        |
| <b>Classification</b>     |                        |                        |
| Skin Irrit. 2 - H315      |                        |                        |
| Skin Sens. 1 - H317       |                        |                        |
| Aquatic Acute 1 - H400    |                        |                        |
| Aquatic Chronic 1 - H410  |                        |                        |
| <b>Beta Caryophyllene</b> |                        | <b>&lt;0.01-3.5%</b>   |
| CAS number: 87-44-5       | EC number: 201-746-1   |                        |
| <b>Classification</b>     |                        |                        |
| Skin Sens. 1B - H317      |                        |                        |
| Asp. Tox. 1 - H304        |                        |                        |
| Aquatic Chronic 4 - H413  |                        |                        |
| <b>Decanal</b>            |                        | <b>&lt;0.01-&lt;1%</b> |
| CAS number: 112-31-2      | EC number: 203-957-4   |                        |
| M factor (Acute) = 1      |                        |                        |
| <b>Classification</b>     |                        |                        |
| Eye Irrit. 2 - H319       |                        |                        |
| Aquatic Acute 1 - H400    |                        |                        |
| Aquatic Chronic 3 - H412  |                        |                        |

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

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Move affected person to fresh air at once. Get medical attention.                             |
| <b>Ingestion</b>  | Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately. |

**CITRONELLA JAVA OIL**

|                     |   |
|---------------------|---|
| <b>Skin contact</b> | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.                   |
| <b>Eye contact</b>  | Rinse cautiously with water for several minutes. Remove any contact lenses and open eyelids wide apart. Continue to rinse. Get medical attention immediately. |

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed**

|                             |                        |
|-----------------------------|------------------------|
| <b>Notes for the doctor</b> | Treat symptomatically. |
|-----------------------------|------------------------|

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | Carbon dioxide (CO <sub>2</sub> ). Powder.                             |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire. |

**5.2. Special hazards arising from the substance or mixture**

|                                      |   |
|--------------------------------------|---|
| <b>Specific hazards</b>              | Closed containers may build up pressure at elevated temperatures.   |
| <b>Hazardous combustion products</b> | Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). |

**5.3. Advice for firefighters**

|  |  |
|--|--|
| <b>Protective actions during firefighting</b>        | Avoid breathing fire gases or vapours. |
| <b>Special protective equipment for firefighters</b> | Wear full protective clothing          |

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

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. |
|-----------------------------|--|

**6.2. Environmental precautions**

|                                  |  |
|----------------------------------|--|
| <b>Environmental precautions</b> | Do not discharge into drains or watercourses or onto the ground. |
|----------------------------------|--|

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

|                                |  |
|--------------------------------|--|
| <b>Methods for cleaning up</b> | Contain spillage with sand, earth or other suitable non-combustible material. Collect and place in suitable waste disposal containers and seal securely. |
|--------------------------------|--|

**6.4. Reference to other sections**

|                                    |                                     |
|------------------------------------|-------------------------------------|
| <b>Reference to other sections</b> | For waste disposal, see Section 13. |
|------------------------------------|-------------------------------------|

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

|   |   |
|---|---|
| <b>Usage precautions</b>                      | Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Static electricity and formation of sparks must be prevented. Provide adequate ventilation. |
| <b>Advice on general occupational hygiene</b> | Good personal hygiene procedures should be implemented.   |

**7.2. Conditions for safe storage, including any incompatibilities**



**CITRONELLA JAVA OIL****Storage precautions**

Keep container tightly closed, in a cool, well ventilated place. Only store in correctly labelled containers. Keep containers upright.

**7.3. Specific end use(s)****SECTION 8: Exposure controls/Personal protection****8.1. Control parameters****Geraniol (CAS: 106-24-1)****DNEL**

Workers - Inhalation; Long term systemic effects: 161.6 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 12.5 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 47.8 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 7.5 bw/day, mg/kg  
 General population - Oral; Long term systemic effects: 13.75 bw/day, mg/kg

**PNEC**

- Fresh water; Short term 0.011 mg/l  
 - Fresh water, Intermittent release; 0.108 mg/l  
 - marine water; Short term 0.001 mg/l  
 - STP; Short term 0.7 mg/l  
 - Sediment (Freshwater); Short term 0.115 mg/kg  
 - Sediment (Marinewater); Short term 0.011 mg/kg  
 - Soil; Short term 0.017 mg/kg

**Citronellol (CAS: 106-22-9)****DNEL**

Workers - Inhalation; Long term systemic effects: 161.6 mg/m<sup>3</sup>  
 Workers - Inhalation; Long term local effects: 10 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term local effects: 10 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 327.4 mg/kg, bw/day  
 Workers - Dermal; Short term local effects: 2.950 mg/cm<sup>2</sup>  
 General population - Inhalation; Long term systemic effects: 47.8 mg/m<sup>3</sup>  
 General population - Inhalation; Long term local effects: 10 mg/m<sup>3</sup>  
 General population - Inhalation; Short term local effects: 10 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 196.4 bw/day, mg/kg  
 General population - Dermal; Short term local effects: 2.950 mg/cm<sup>2</sup>  
 General population - Oral; Long term systemic effects: 13.8 mg/kg, bw/day

**PNEC**

- Fresh water; Short term 0.002 mg/l  
 - Intermittent release, Fresh water; Short term 0.024 mg/l  
 - marine water; Short term 0 mg/l  
 - STP; Short term 580 mg/l  
 - Sediment (Freshwater); Short term 0.026 mg/kg  
 - Sediment (Marinewater); Short term 0.003 mg/kg  
 - Soil; Short term 0.004 mg/kg

**(R)-p-mentha-1,8-diene (CAS: 5989-27-5)****DNEL**

Workers - Inhalation; Long term systemic effects: 33.3 mg/m<sup>3</sup>  
 General population - Oral; Long term systemic effects: 4.76 mg/kg

**CITRONELLA JAVA OIL**

- PNEC**
- STP; 1.8 mg/l
  - Soil; 0.262 mg/kg
  - Fresh water; 0.0054 mg/l
  - marine water; 0.00054 mg/l
  - Sediment (Freshwater); 1.32 mg/kg
  - Sediment (Marinewater); 0.13 mg/kg

**Geranyl Acetate (CAS: 105-87-3)**

- DNEL**
- Workers - Inhalation; Long term systemic effects: 62.59 mg/m<sup>3</sup>
  - Workers - Dermal; Long term systemic effects: 35.5 mg/kg, bw/day
  - General population - Inhalation; Long term systemic effects: 15.4 mg/m<sup>3</sup>
  - General population - Dermal; Long term systemic effects: 17.75 mg/kg, bw/day
  - General population - Oral; Long term systemic effects: 8.9 mg/kg, bw/day

- PNEC**
- Fresh water; Short term 3.72 mg/l
  - Intermittent release, Fresh water; 37.2 mg/l
  - marine water; Short term 0.372 mg/l
  - STP; Short term 8 mg/l
  - Sediment (Freshwater); Short term 0.442 mg/kg
  - Sediment (Marinewater); Short term 0.044 mg/kg
  - Soil; Short term 0.086 mg/kg

**Citronellyl Acetate (CAS: 150-84-5)**

- DNEL**
- Workers - Inhalation; Long term systemic effects: 17 mg/m<sup>3</sup>
  - Workers - Dermal; Long term systemic effects: 4.8 bw/day, mg/kg
  - General population - Inhalation; Long term systemic effects: 4.2 mg/m<sup>3</sup>
  - General population - Dermal; Long term systemic effects: 2.4 bw/day, mg/kg
  - General population - Oral; Long term systemic effects: 2.4 bw/day, mg/kg

- PNEC**
- Fresh water; Short term 0.003 mg/l
  - Intermittent release, Fresh water; 0.035 mg/l
  - marine water; Short term 0 mg/l
  - STP; Short term 10 mg/l
  - Sediment (Freshwater); Short term 0.851 mg/kg
  - Sediment (Marinewater); Short term 0.085 mg/kg
  - Soil; Short term 0.168 mg/kg

**Eugenol (CAS: 97-53-0)**

- DNEL**
- Workers - Inhalation; Long term systemic effects: 21.2 mg/m<sup>3</sup>
  - Workers - Dermal; Long term systemic effects: 6 bw/day, mg/kg
  - General population - Inhalation; Long term systemic effects: 5.22 mg/m<sup>3</sup>
  - General population - Dermal; Long term systemic effects: 3 mg/kg, bw/day
  - General population - Oral; Long term systemic effects: 3 bw/day, mg/kg

- PNEC**
- Fresh water; Short term 1.13 mg/l
  - Intermittent release, Fresh water; 11.3 mg/l
  - marine water; Short term 0.113 mg/l
  - Sediment (Freshwater); Short term 0.081 mg/kg
  - Sediment (Marinewater); Short term 0.008 mg/kg
  - Soil; Short term 0.015 mg/kg

**Linalool (CAS: 78-70-6)**

**CITRONELLA JAVA OIL**

**DNEL**

Workers - Dermal; Short term systemic effects: 5 mg/kg  
 Workers - Inhalation; Short term systemic effects: 16.5 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 2.5 mg/kg  
 Workers - Inhalation; Long term systemic effects: 2.8 mg/m<sup>3</sup>  
 General population - Oral; Short term systemic effects: 1.5 mg/kg  
 General population - Dermal; Short term systemic effects: 2.5 mg/kg  
 General population - Inhalation; Short term systemic effects: 4.1 mg/m<sup>3</sup>  
 General population - Oral; Long term systemic effects: 0.2 mg/kg  
 General population - Dermal; Long term systemic effects: 1.25 mg/kg  
 General population - Inhalation; Long term systemic effects: 0.7 mg/m<sup>3</sup>  
 - ; ;

**PNEC**

- STP; Short term 10 mg/l
- Soil; Short term 0.327 mg/kg
- Intermittent release; Short term 2 mg/l
- Fresh water; Short term 0.2 mg/l
- marine water; Short term 0.02 mg/l
- Sediment (Freshwater); Short term 2.22 mg/kg
- Sediment (Marinewater); Short term 0.222 mg/kg

**Decanal (CAS: 112-31-2)**

**DNEL**

Workers - Inhalation; Long term systemic effects: 24.9 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 7 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 6.1 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 3.5 mg/kg, bw/day  
 General population - Oral; Long term systemic effects: 3.5 bw/day, mg/kg

**PNEC**

- Fresh water; Short term 1.17 mg/l
- Fresh water, Intermittent release; 11.7 mg/l
- marine water; Short term 0.117 mg/l
- STP; Short term 3.16 mg/l
- Sediment (Freshwater); Short term 0.097 mg/kg
- Sediment (Marinewater); Short term 0.01 mg/kg
- Soil; Short term 0.019 mg/kg

**Terpineol (alpha&beta&gamma) (CAS: 8000-41-7)**

**DNEL**

Workers - Inhalation; Long term systemic effects: 44.8 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 6.35 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 7.96 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 2.29 mg/kg, bw/day  
 General population - Oral; Long term systemic effects: 0.42 bw/day, mg/kg

**PNEC**

- Fresh water; Short term 12 mg/l
- Fresh water, Intermittent release; mg/l
- marine water; Short term 1.2 mg/l
- STP; Short term 2.57 mg/l
- Sediment (Freshwater); Short term 0.263 mg/kg
- Sediment (Marinewater); Short term 0.026 mg/kg
- Soil; Short term 0.045 mg/kg

**7-methyl-3-methyleneocta-1,6-diene (CAS: 123-35-3)**

**CITRONELLA JAVA OIL**

**DNEL** Workers - Dermal; Long term systemic effects: 0.83 mg/kg  
 Workers - Inhalation; Long term systemic effects: 5.83 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 0.42 mg/kg  
 General population - Inhalation; Long term systemic effects: 1.25 mg/m<sup>3</sup>

**PNEC**

- STP; 0.2 mg/l
- Soil; 1.015 mg/kg
- Fresh water; 0.00028 mg/l
- marine water; 0.0008 mg/l
- Sediment (Freshwater); 5.022 mg/kg
- Sediment (Marinewater); 0.502 mg/kg

**a terpinolene (CAS: 586-62-9)**

**DNEL** Workers - Inhalation; Long term systemic effects: 3.6 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.52 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 0.9 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 0.26 bw/day, mg/kg  
 General population - Oral; Long term systemic effects: 0.26 mg/kg, bw/day

**PNEC**

- Fresh water; Short term 0.634 mg/l
- Fresh water, Intermittent release; Short term 0.634 mg/l
- marine water; Short term 0.063 mg/l
- STP; Short term 0.2 mg/l
- Sediment (Freshwater); Short term 14.7 mg/kg
- Sediment (Marinewater); Short term 14.7 mg/kg
- Soil; Short term 29.1 mg/kg

**Alpha Pinene (CAS: 80-56-8)**

**DNEL** Workers - Inhalation; Long term systemic effects: 3.8 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.54 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 0.67 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 0.19 mg/kg, bw/day  
 General population - Oral; Long term systemic effects: 0.19 mg/kg, bw/day

**PNEC**

- Fresh water; Short term 0.606 mg/l
- Intermittent release, Fresh water; 3.03 mg/l
- marine water; Short term 0.061 mg/l
- marine water, Intermittent release; 0.303 mg/l
- STP; Short term 0.2 mg/l
- Sediment (Freshwater); Short term 157 mg/kg
- Sediment (Marinewater); Short term 15.7 mg/kg
- Soil; Short term 31.7 mg/kg

**Camphene (CAS: 79-92-5)**

**CITRONELLA JAVA OIL****DNEL**

Workers - Inhalation; Long term systemic effects: 110.19 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term systemic effects: 110.19 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.21 bw/day, mg/kg  
 Workers - Dermal; Short term systemic effects: 1.25 bw/day, mg/kg  
 General population - Inhalation; Long term systemic effects: 54.3 mg/m<sup>3</sup>  
 General population - Inhalation; Short term systemic effects: 54.3 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 0.1 bw/day, mg/kg  
 General population - Dermal; Short term systemic effects: 0.625 bw/day, mg/kg  
 General population - Oral; Long term systemic effects: 0.1 bw/day, mg/kg  
 General population - Oral; Short term systemic effects: 0.625 mg/kg, bw/day

**PNEC**

- Fresh water; Short term 0.001 mg/l  
 - Fresh water, Intermittent release; 0.001 mg/l  
 - marine water; Short term 0 mg/l  
 - STP; Short term 10 mg/l  
 - Sediment (Freshwater); Short term 0.026 mg/kg  
 - Sediment (Marinewater); Short term 0.003 mg/kg  
 - Soil; Short term 0.021 mg/kg

**8.2. Exposure controls****Protective equipment****Appropriate engineering controls**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Eye/face protection**

Approved safety goggles.

**Hand protection**

Chemical resistant gloves (PVC)

**Other skin and body protection**

Wear apron or protective clothing in case of contact.

**Hygiene measures**

Good personal hygiene procedures should be implemented.

**Respiratory protection**

Generally unnecessary in a well ventilated area.  
 If ventilation is insufficient, respiratory protection must be worn.

**Environmental exposure controls**

Avoid discharging into drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|  |                      |
|--|----------------------|
| <b>Appearance</b>                      | Liquid.              |
| <b>Colour</b>                          | Pale Yellow.         |
| <b>Odour</b>                           | Characteristic.      |
| <b>Melting point</b>                   | <-20°C               |
| <b>Initial boiling point and range</b> | 92°C @ 1013 hPa      |
| <b>Flash point</b>                     | 70-90°C              |
| <b>Vapour pressure</b>                 | 22.14 Pa @ 25°C      |
| <b>Relative density</b>                | 0.850 - 0.950 @ 20°C |

## CITRONELLA JAVA OIL



|                           |                               |
|---------------------------|-------------------------------|
| Solubility(ies)           | 0.05 - 1767 mg/l water @ 25°C |
| Partition coefficient     | log Kow: 2.73 - 7.04          |
| Auto-ignition temperature | 240°C                         |

**9.2. Other information**

|                     |                      |
|---------------------|----------------------|
| Refractive index    | 1.450 - 1.490 @ 20°C |
| Hydrocarbon Content |                      |

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

|            |            |
|------------|------------|
| Reactivity | Not known. |
|------------|------------|

**10.2. Chemical stability**

|           |   |
|-----------|---|
| Stability | Stable under the prescribed storage conditions. |
|-----------|---|

**10.3. Possibility of hazardous reactions**

|                                    |                    |
|------------------------------------|--------------------|
| Possibility of hazardous reactions | No data available. |
|------------------------------------|--------------------|

**10.4. Conditions to avoid**

|                     |   |
|---------------------|---|
| 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**

|                                  |                    |
|----------------------------------|--------------------|
| Hazardous decomposition products | No data available. |
|----------------------------------|--------------------|

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity - oral**

|                  |       |
|------------------|-------|
| ATE oral (mg/kg) | 500.0 |
|------------------|-------|

**SECTION 12: Ecological information****12.1. Toxicity****Acute aquatic toxicity**

|                       |  |
|-----------------------|--|
| Acute toxicity - fish | LL <sub>50</sub> , 96 hours: 7.5 mg/l, Oncorhynchus mykiss (Rainbow trout) |
|-----------------------|--|

|  |  |
|--|--|
| Acute toxicity - aquatic invertebrates | EL <sub>50</sub> , 48 hours: 6.0 mg/l, Daphnia magna |
|--|--|

|                                 |  |
|---------------------------------|--|
| Acute toxicity - aquatic plants | ErL <sub>50</sub> , 72 hours: 10 mg/l, Pseudokirchneriella subcapitata |
|---------------------------------|--|

|                                 |            |
|---------------------------------|------------|
| Acute toxicity - microorganisms | Not known. |
|---------------------------------|------------|

|                              |            |
|------------------------------|------------|
| Acute toxicity - terrestrial | Not known. |
|------------------------------|------------|

**12.2. Persistence and degradability**

|                               |                                       |
|-------------------------------|---------------------------------------|
| Persistence and degradability | The product is readily biodegradable. |
|-------------------------------|---------------------------------------|

**12.3. Bioaccumulative potential**

## CITRONELLA JAVA OIL



**Partition coefficient**                      log Kow: 2.73 - 7.04

### 12.4. Mobility in soil

**Mobility**                                      No data available.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**      This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods**                              Dispose of waste product or used containers in accordance with local regulations

## SECTION 14: Transport information

### 14.1. UN number

|                         |      |
|-------------------------|------|
| <b>UN No. (ADR/RID)</b> | 3082 |
| <b>UN No. (IMDG)</b>    | 3082 |
| <b>UN No. (ICAO)</b>    | 3082 |
| <b>UN No. (ADN)</b>     | 3082 |

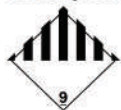
### 14.2. UN proper shipping name

|                                       |   |
|---------------------------------------|---|
| <b>Proper shipping name (ADR/RID)</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| <b>Proper shipping name (IMDG)</b>    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| <b>Proper shipping name (ICAO)</b>    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| <b>Proper shipping name (ADN)</b>     | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |

### 14.3. Transport hazard class(es)

|                                    |    |
|------------------------------------|----|
| <b>ADR/RID class</b>               | 9  |
| <b>ADR/RID classification code</b> | M6 |
| <b>ADR/RID label</b>               | 9  |
| <b>IMDG class</b>                  | 9  |
| <b>ICAO class/division</b>         | 9  |
| <b>ADN class</b>                   | 9  |

### Transport labels



### 14.4. Packing group

|                              |     |
|------------------------------|-----|
| <b>ADR/RID packing group</b> | III |
| <b>IMDG packing group</b>    | III |
| <b>ICAO packing group</b>    | III |

**CITRONELLA JAVA OIL**

ADN packing group III

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS F-A, S-F

ADR transport category 3

Emergency Action Code •3Z

Hazard Identification Number 90  
(ADR/RID)

Tunnel restriction code (E)

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU legislation** Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

**Guidance** CHIP for everyone HSG228.**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**Inventories****EU - EINECS/ELINCS**

Complies

**Canada - DSL/NDSL**

DSL

**US - TSCA**

Complies

**US - TSCA 12(b) Export Notification**

Not listed.

**Australia - AICS**

Complies

**Japan - ENCS**

Complies

**Korea - KECI**

Complies



**CITRONELLA JAVA OIL****China - IECSC**

Complies

**Philippines – PICCS**

Complies

**New Zealand - NZIOC**

Complies

**Taiwan - NECI**

Complies

**SECTION 16: Other information****Revision date** 18/06/2019**Revision** 6**Supersedes date** 18/06/2019**SDS number** 4714**Hazard statements in full**  
H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.  
H413 May cause long lasting harmful effects to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

# Product Specification

| PRODUCT DETAILS  |   |                               |
|--|---|-------------------------------|
| Product Name   | CITRONELLA JAVA OIL   |                               |
| Product Code   | OECITR  |                               |
| INCI Name  | Cymbopogon  |                               |
| Country of Origin  | China / Indonesia   |                               |
| Tariff Number  | 33012941  |                               |
| Natural Status   | We hereby declare, to the best of our knowledge and from information received from our supplier, that this product is in accordance to the requirements of Articles 3 (2) (d) of Regulation (EC) 1334/2008 and therefore can be designated as natural.  |                               |
| Irradiation Statement  | We hereby confirm from information received from our supplier that this product has not undergone any treatments at any stage for preservation, sterilisation (e.g irradiation, fumigation etc.)  |                               |
| Kosher Certified   | Yes   |                               |
| Halal Certified  | We hereby declare, from information received from our supplier, that this product does not contain any ingredient derived from animal origin, extracted from hair or feathers, animal fats, animal extracts, blood of any origin, blood plasma, pork and/or other meat products. This product does not contain alcohol (ethanol or grain alcohol) and has not been used in the manufacturing process. |                               |
| GMO Declaration  | To the best of our knowledge and from information received from our supplier, this product does not derive from genetically modified starting raw material, or additives that are derived from genetically modified organisms.  |                               |
| BSE (Bovine Spongiform Encephalopathy) and TSE (Transmissible Spongiform Encephalopathy) Declaration | We hereby declare, from information received from our supplier, that this product is entirely free from BSE and TSE. This product does not contain and is not produced from any animal origin.  |                               |
| Manufacturing Process  | Steam distillation of the freshly cut or partially dried grasses of Cymbopogon Winterianus.   |                               |
| Identification   | CAS No: 91771-61-8  | EINECS No: 294-954-7          |
|  | Alternative Cas: 8000-29-1  | FEMA No: 2308                 |
|  | CoE: 39   | FDA No: 182.20                |
| PHYSICAL AND CHEMICAL CHARACTERISTIC   |   |                               |
| Appearance   | Liquid  |                               |
| Colour   | Pale yellow   |                               |
| Odour  | Characteristic  |                               |
| Initial Boiling Point and range  | 220 - 225°C   |                               |
| Flash Point  | 70-90°C   |                               |
| Vapour Pressure @ 25°C   | 0.8 mm Hg   |                               |
| Relative Density @ 20°C  | 0.850 - 0.950   |                               |
| Refractive Index @ 20°C  | 1.450 - 1.490   |                               |
| FRAGRANCE ALLERGENS  |   |                               |
| Citral (5392-40-5) <2%   | Citronellol (106-22-9) Ca 12.74%  | Limonene (5989-27-5) Ca 3.76% |
| Eugenol (97-53-0) Ca 1.05%   | Farnesol (4602-84-0) <1%  | Geraniol (106-24-1) Ca 21%    |
| Linalool (78-70-6) Ca 1%   |   |                               |
| FOOD ALLERGENS   |   |                               |
| NONE   |   |                               |
| IFRA   |   |                               |
| Citral (5392-40-5) <2%   | Geraniol (106-24-1) Ca 21%  | Eugenol (97-53-0) Ca 1.05%    |
| Farnesol (4602-84-0) <1%   | Citronellol (106-22-9) Ca 12.74%  |                               |
| STORAGE AND SHELF LIFE   |   |                               |
| Storage  | Store in tightly closed container with minimum headspace in a cool, dark and dry place.   |                               |
| Shelf Life   | 36 months unopened and stored as above.   |                               |

**DISCLAIMER:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the Company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR Corporation make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

Issue no: 3



# Vegan and Vegetarian Statement

## IDENTIFICATION

Product: CITRONELLA JAVA OIL

Cas No: 91771-61-8

EINECS No: 294-954-7

## STATEMENT

We, MADAR Corporation Limited, from information received from our supplier, hereby declare that the material listed above is compliant with a vegan or vegetarian diet.

It does not contain any animal ingredients or animal by products. No animal ingredients or by products are used in the manufacturing process.

This document represents to the best of our knowledge and from information received from our supplier. It does not release the buyer from the obligation to carry out an examination of the goods received. All uses made by the buyer are done under their own responsibility.