



Certificate of Analysis

IDENTIFICATION

Product EUCALYPTUS CITRIODORA
Product Code OEEUCACITR

Batch Number 4374506
Best Before End October 2022

PHYSICAL AND CHEMICAL CHARACTERISTIC

| | SPECIFICATION RANGE | RESULTS |
|-------------------------|---------------------|----------|
| Appearance | Liquid | Conforms |
| Colour | Pale Yellow | Conforms |
| Odour | Characteristic | Conforms |
| Relative Density @ 20°C | 0.858 - 0.880 | 0.8678 |
| Refractive Index @ 20°C | 1.4500 - 1.4590 | 1.4526 |
| Flash Point | ca 73°C | Conforms |
| Optical Rotation | -1 to +3 | 0.6 |

MAIN CONSTITUENTS

| Constituent Range | Result | Constituent Range | Result | Constituent Range | Result |
|-----------------------------|---------------|-------------------------|--------------|----------------------------|--------------|
| Citronellal 70-85% | 72.50% | Citronellol 1-12% | 7.10% | Iso Pulegol 3-15% | 3.10% |
| Alpha Pinene 0.01-3% | 0.40% | Neo Iso Pulegol 0.01-7% | 5.40% | Beta Caryophyllene 0.01-2% | 0.60% |
| Citronellyl Acetate 0.01-4% | Traces | | | | |

STORAGE AND SHELF LIFE

Storage Store in tightly closed container with minimum headspace in a cool, dark and dry place.

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.



ALLERGEN STATEMENT

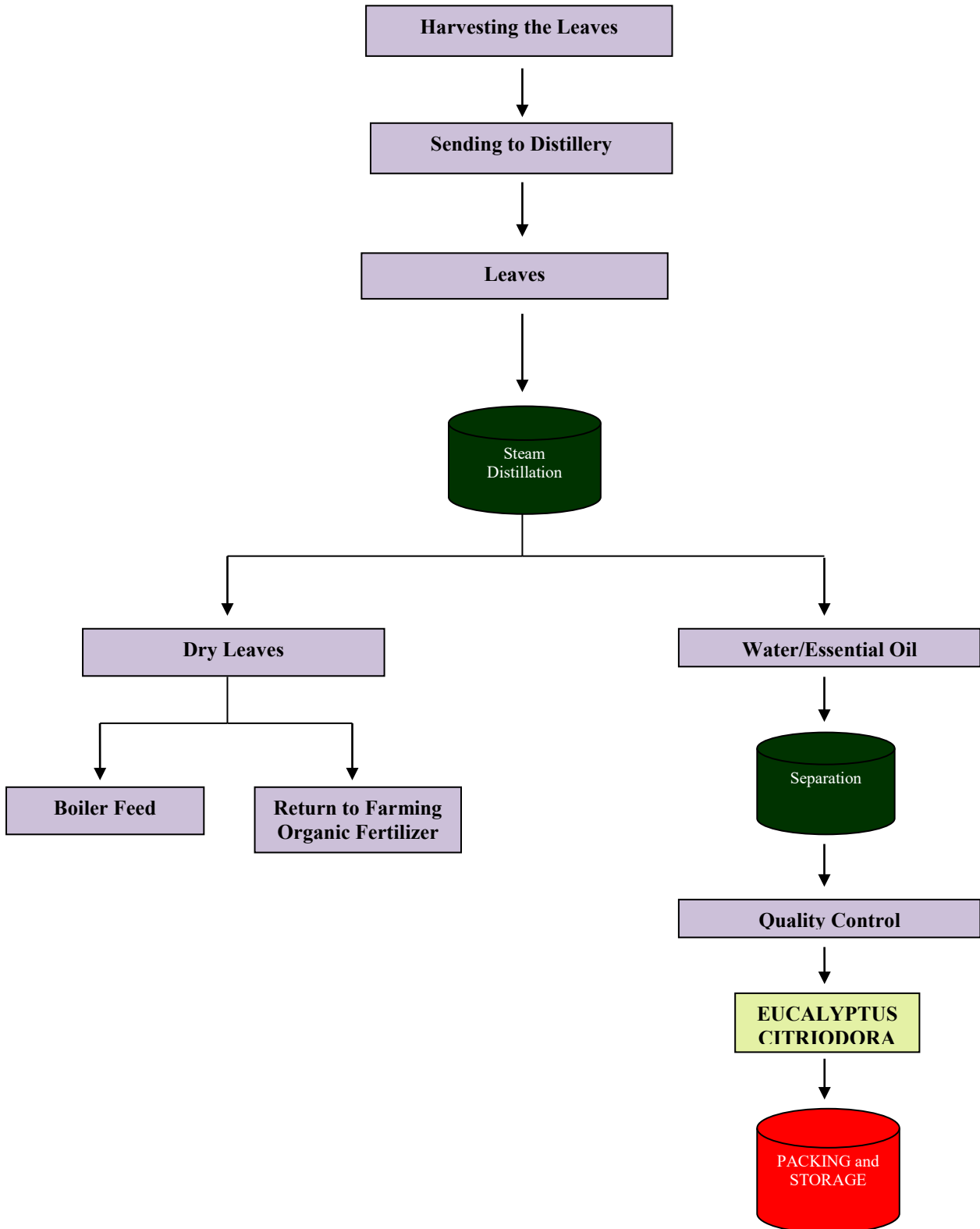
Eucalyptus Citriodora

| Compounds | C.A.S | | |
|--|------------|------|---|
| Alpha-Hexyl cinnamic aldehyde (HCA) | 101-86-0 | - | - |
| Amyl cinnamic alcohol | 101-85-9 | - | - |
| Amyl cinnamic aldehyde (ACA) | 122-40-7 | - | - |
| Anisyl alcohol | 105-13-5 | - | - |
| Benzyl salicylate | 118-58-1 | - | - |
| Benzyl benzoate | 120-51-4 | - | - |
| Benzyl cinnamate | 103-41-3 | - | - |
| Benzyl alcohol | 100-51-6 | - | - |
| Cinnamic alcohol | 104-54-1 | - | - |
| Cinnamic aldehyde | 104-55-2 | - | - |
| Citral | 5392-40-5 | - | - |
| Citronellol | 106-22-9 | <10% | - |
| Coumarin (2p-1-benzopyran-2-one | 91-64-5 | - | - |
| D'limonene | 5989-27-5 | <1% | - |
| Eugenol | 97-53-0 | - | - |
| Farnesol | 4602-84-0 | - | - |
| Geraniol | 106-24-1 | - | - |
| Lyral (Hydroxymethylpentyl cyclohexene carbalde) | 31906-04-4 | - | - |
| Hydroxycitronellal | 107-75-5 | - | - |
| Isoeugenol | 97-54-1 | - | - |
| Alpha-Iso-methyl Ionone | 127-51-5 | - | - |
| Linalool | 78-70-6 | <1% | - |
| Methyl heptine carbonate | 111-12-6 | - | - |
| Oakmoss absolute | 9000-50-4 | - | - |
| p-tert-Butyl-alpha-methylhydrocinnamic a | 80-54-6 | - | - |
| Tree moss | 68648-41-9 | - | - |

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**EUCALYPTUS CITRIODORA
FLOW CHART**





IFRA STATEMENT Eucalyptus Citriodora

We hereby certify that from information received from our supplier the below mentioned product contains the following restricted substances:

| SUBSTANCE | CAS | VALUE |
|-----------------------|-----------------|------------------|
| Citronellol | 106-22-9 | <10% |
| Methyl Eugenol | 93-15-2 | <0.05% |
| Linalool | 78-70-6 | <1% |

This information is to the best of our knowledge, true and accurate at the time it is given.

It is the ultimate responsibility of the customer to ensure the safety of the final product containing this material by carrying out further tests if necessary.



**SAFETY DATA SHEET
EUCALYPTUS CITRIODORA**

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

1.1. Product identifier

Product name EUCALYPTUS MACULATA CITRIODORA
Product number OEEUCACITR
CAS number 85203-56-1
EC number 286-249-8

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

Identified uses Industrial, only for professional use

1.3. Details of the supplier of the safety data sheet

Supplier Madar Corporation
19-20 Sandleheath Industrial Estate,
Fordingbridge,
Hampshire,
SP6 1PA,
UK
Tel: 01425 655555
Email: sales@madarcorporation.co.uk

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 2 - H411

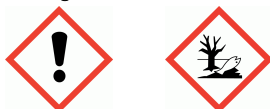
Human health The product is irritating to eyes and skin.

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 286-249-8

Pictogram





| | |
|---------------------------------|--|
| Signal word | Warning |
| Hazard statements | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. |
| Precautionary statements | P261 Avoid breathing vapour/spray. P264 Wash contaminated skin thoroughly after handling. 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. 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). P332+P313 If skin irritation occurs: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. P501 Dispose of contents/container in accordance with national regulations. |
| Contains | (+)-Citronellal, β -(+)-Citronellol, Alpha Pinene, (S)-p-mentha-1,8-diene, a terpinolene |

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

3.2. Mixtures

| | |
|---|----------------------|
| (+)-Citronellal | 70 - 85% |
| CAS number: 2385-77-5 | EC number: 219-194-5 |
| Classification Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Aquatic Chronic 2 - H411 | |
| β-(+)-Citronellol | 4-10% |
| CAS number: 1117-61-9 | EC number: 214-250-5 |
| Classification Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Aquatic Chronic 2 - H411 | |

| | |
|---|--------------------|
| Iso Pulegol CAS number: 89-79-2 EC number: 201-940-6 | 3-15% |
| Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 | |
| Alpha Pinene CAS number: 80-56-8 EC number: 201-291-9 | 0.01-3% |
| Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 | |
| Neo Iso Pulegol CAS number: 96612-21-4 | 0.01-7% |
| Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 | |
| Beta Caryophyllene CAS number: 87-44-5 EC number: 201-746-1 | <0.01-2% |
| Classification Asp. Tox. 1 - H304 | |
| Citronellyl Acetate CAS number: 150-84-5 EC number: 205-775-0 | <0.01-3% |
| Classification Skin Irrit. 2 - H315 Aquatic Chronic 2 - H411 | |
| 6-Methyl-5-hepten-2-one CAS number: 110-93-0 EC number: 203-816-7 | <0.01-4% |
| Classification Flam. Liq. 3 - H226 | |

| |
|--|
| Cis-beta-Ocimene <0.01-1% CAS number: 3338-55-4 EC number: 222-081-3 |
| Classification Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 |
| (S)-p-mentha-1,8-diene <0.01-1% CAS number: 5989-54-8 EC number: 227-815-6 M factor (Acute) = 1 M factor (Chronic) = 1 |
| Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 |
| a terpinolene <0.01-1% CAS number: 586-62-9 EC number: 209-578-0 M factor (Acute) = 1 M factor (Chronic) = 1 |
| Classification Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 |
| (-)-linalool <0.01-1% CAS number: 126-91-0 EC number: 204-811-2 |
| Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 |
| 7-methyl-3-methyleneocta-1,6-diene <0.01-1% CAS number: 123-35-3 EC number: 204-622-5 |
| Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Asp. Tox. 1 - H304 |

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



| | |
|---------------------|---|
| Inhalation | Provide fresh air. Seek medical attention if discomfort occurs. |
| Ingestion | Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues. |
| Eye contact | Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes and get medical attention. |

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

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use as appropriate carbon dioxide (CO₂), dry chemical or foam

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards In case of fire, toxic fumes like carbon monoxide and carbon dioxide may be liberated. Burning produces heavy smoke.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapours. Wear protective clothing and gloves.

For emergency responders Wear an appropriate NIOSH / MSHA approved respirator if mist or vapour is generated.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb with liquid binding material (e.g sand, diatomaceous earth, acid or universal binding agents). Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Apply good manufacturing practice and industrial hygiene practices. Keep containers sealed when not in use. Provide adequate ventilation. Keep away from heat, sparks and open flame.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Alpha Pinene (CAS: 80-56-8)

| | |
|-------------|--|
| DNEL | Workers - Inhalation; Long term systemic effects: 5.98 mg/m ³ General population - Oral; Long term systemic effects: 0.31 mg/kg General population - Inhalation; Long term systemic effects: 1.06 mg/m ³ |
| PNEC | - STP; 3.26 mg/l - Soil; 0.539 mg/kg - Fresh water; 0.004 mg/l - Marine water; 0.0004 mg/l - Sediment (Freshwater); 1.033 mg/kg - Sediment (Marinewater); 0.103 mg/kg |

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

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

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Personal protection

General protective and hygienic measures: Use personal protective equipment depending on concentration and amount of hazardous substance. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.

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

| | |
|--|--|
| Appearance | Liquid. |
| Colour | Pale Yellow. |
| Odour | Characteristic. |
| Melting point | <-20°C |
| Initial boiling point and range | 93°C @ 1013 hPa |
| Flash point | 73.7°C |
| Vapour pressure | 44.7 Pa @ 25°C |
| Relative density | 0.858 - 0.880 @ 20°C |
| Solubility(ies) | The constituents of the substance have a water solubility ranging from 0.5 to 4364 mg/L @ 25c. 94.14% of the composition has a water solubility >17 mg/L |
| Partition coefficient | log Pow: 2.06 - 6.3 |
| Auto-ignition temperature | 225°C |
| Optical rotation | -2 to -4 |

9.2. Other information

Refractive index 1.4500 - 1.4590 @ 20°C

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 8,650.52

SECTION 12: Ecological Information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Further B/vB assessment is not relevant as none of the known constituents of Eucalyptus Citriodora are P (or vP)

Partition coefficient log Pow: 2.06 - 6.3

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of in compliance with all local and national regulations.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

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

SECTION 16: Other information



| | |
|----------------------------------|--|
| SDS number | 4700 |
| 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. H319 Causes serious eye irritation. H335 May cause respiratory 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. |

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Product Specification

| PRODUCT DETAILS | | |
|--------------------------------------|--|------------------------|
| Product Name | EUCALYPTUS CITRIODORA | |
| Product Code | OEEUCACITR | |
| Tariff Number | 33012941 | |
| Country of Origin | Brazil | |
| INCI Name | Eucalyptus Maculata Citriodora | |
| 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. This product does not contain any solvents or additives. | |
| Food Grade Status | We confirm, from information received from our supplier, that this product conforms with EU Regulations and can be used in food. | |
| 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. | |
| Manufacturing Process | Steam distillation f the leaves from Eucalyptus Maculata Citriodora | |
| Identification | CAS No: 85203-56-1 | EC No:286-249-8 |
| | FEMA: 2466 | CoE: 186 |
| PHYSICAL AND CHEMICAL CHARACTERISTIC | | |
| Appearance | Liquid | |
| Colour | Pale Yellow | |
| Odour | Characteristic | |
| Relative Density @ 20°C | 0.858 - 0.880 | |
| Refractive Index @ 20°C | 1.4500 - 1.4590 | |
| Flash Point °C | ca 73°C | |
| Vapour Pressure @25°C | 47.5 Pa | |
| Initial Boiling Point and range | 93 ± 10°C @ 101 325 Pa | |
| Optical Rotation | -1 to +3 | |
| FRAGRANCE ALLERGENS | | |
| Citronellol (106-22-9) <12% | Limonene (5989-27-5) <1% | Linalool (78-70-6) <1% |
| FOOD ALLERGENS | | |
| NONE PRESENT | | |
| IFRA | | |
| Citronellol (106-22-9) <12% | Methyl Eugenol (93-15-2) <0.5% | |
| STORAGE AND SHELF LIFE | | |
| Storage | Store in tightly closed container with minimum headspace in a cool, dark and dry place. | |

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