



## Certificate of Analysis

| PRODUCT DETAILS                      |                                                                                         |                 |
|--------------------------------------|-----------------------------------------------------------------------------------------|-----------------|
| Product Name                         | MORINGA SEED OIL                                                                        |                 |
| Product Code                         | OVMORI                                                                                  |                 |
| Tariff Number                        | 15159060                                                                                |                 |
| Country of Origin                    | Various                                                                                 |                 |
|                                      |                                                                                         |                 |
| Batch Number                         | 4360705                                                                                 |                 |
| Best Before End                      | May 2021                                                                                |                 |
| Identification                       | CAS No: 93165-54-9                                                                      | EC No:296-941-1 |
| PHYSICAL AND CHEMICAL CHARACTERISTIC |                                                                                         |                 |
|                                      | SPECIFICATION RANGE                                                                     | RESULTS         |
| Appearance                           | Liquid                                                                                  | Conforms        |
| Colour                               | Pale Yellow to Yellow                                                                   | Conforms        |
| Odour                                | Characteristic                                                                          | Conforms        |
| Relative Density @ 20°C              | 0.909 - 0.922                                                                           | 0.915           |
| Refractive Index @ 20°C              | 1.464 - 1.474                                                                           | 1.47            |
| Flash Point °C                       | ≥300                                                                                    | Conforms        |
| Solubilities                         | Insoluble in water. Soluble in common organic solvents.                                 | Conforms        |
| Acid Value (mgKOH/g)                 | ≤1.0                                                                                    | 0.08            |
| Saponification Value (mgKOH/g)       | 185.0 - 197.0                                                                           | 189.8           |
| Peroxide Value (Meg/kg)              | ≤5.0 (at time of production analysis)                                                   | 0.45            |
|                                      |                                                                                         |                 |
| <b>Fatty Acid Profile (%)</b>        |                                                                                         |                 |
| C16:0 Palmitic Acid                  | ≤10.5                                                                                   | 6.92            |
| C18:0 Stearic Acid                   | ≤12.0                                                                                   | 2.94            |
| C18:1 Oleic Acid                     | 65.0 - 85.0                                                                             | 76.94           |
| C18:2 Linoleic Acid                  | ≤22.0                                                                                   | 10.84           |
| C20:0 Arachidic Acid                 | ≤2.0                                                                                    | 0.3             |
| STORAGE AND SHELF LIFE               |                                                                                         |                 |
| Storage                              | Store in tightly closed container with minimum headspace in a cool, dark and dry place. |                 |
| Shelf Life                           | 24 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.**



## ALLERGEN STATEMENT

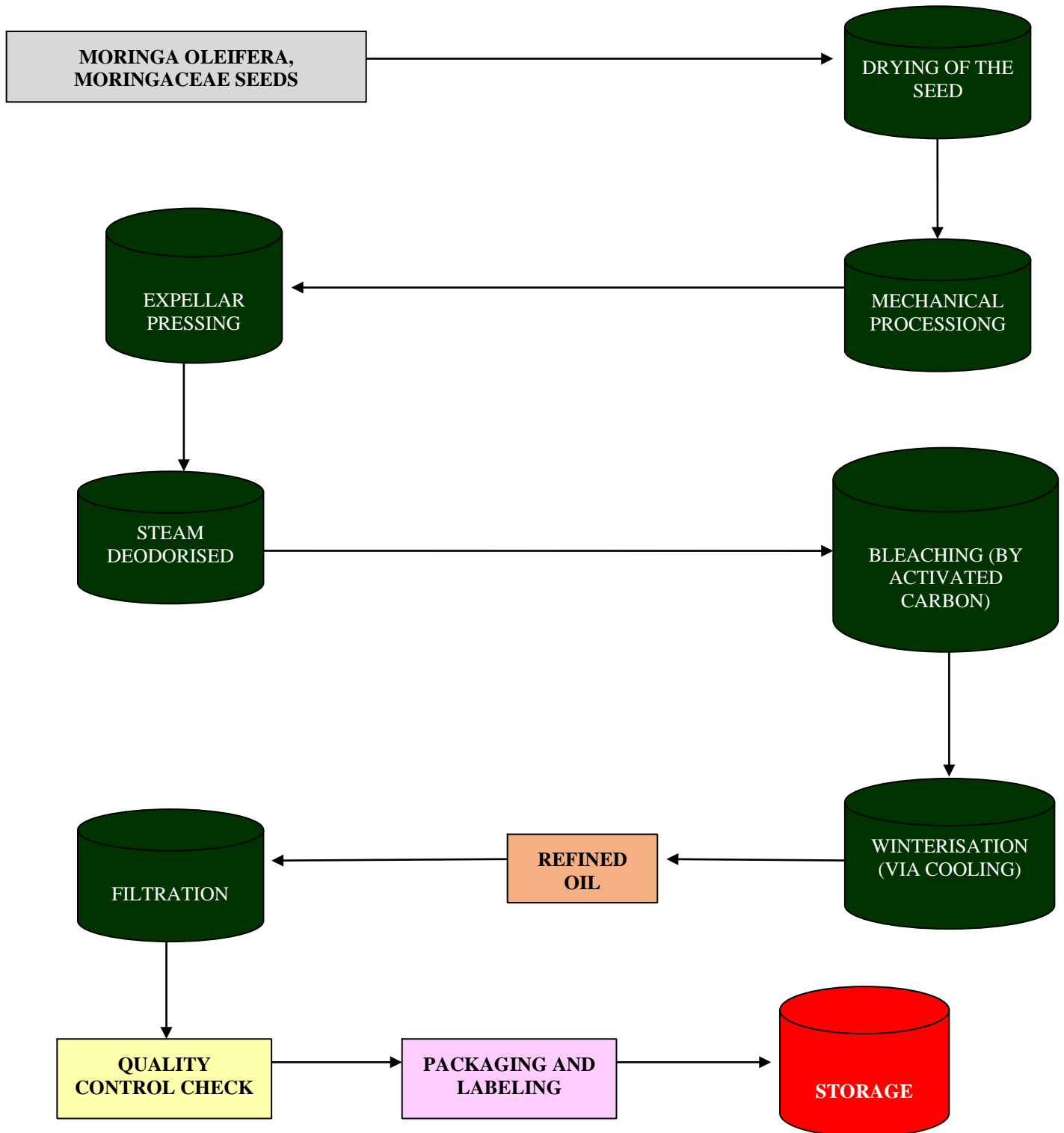
**PRODUCT NAME** MORINGA SEED OIL

| Compounds                                        | C.A.S        | % Natural | % Synthetic | % Total |
|--------------------------------------------------|--------------|-----------|-------------|---------|
| 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     | -         | -           | -       |
| Coumarin (2p-1-benzopyran-2-one                  | 91-64-5      | -         | -           | -       |
| D'limonene                                       | 5989-27-5    | -         | -           | -       |
| Eugenol                                          | 97-53-0      | -         | -           | -       |
| Farnesol                                         | 4602-84-0    | -         | -           | -       |
| Geraniol                                         | 106-24-1     | -         | -           | -       |
| Lylal (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      | -         | -           | -       |
| 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   | -         | -           | -       |
|                                                  | <b>TOTAL</b> | -         | -           | -       |

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK

Tel: 01425 655555 Email: technical@madarcorporation.co.uk

MORINGA SEED OIL  
FLOW CHART





SAFETY DATA SHEET  
MORINGA SEED OIL

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

1.1. Product identifier

Product name MORINGA SEED OIL  
Product No. OVMORI  
Synonyms, Trade Names CAS- Moringa Oleifera Seed Oil  
No. 85507-69-3  
EC No. 287-390-8

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

1.3. Details of the supplier of the safety data sheet

Supplier MADAR Corproation Limited  
19-20 Sandleheath Industrial Estate  
Fordingbridge  
Hampshire  
SP6 1PA  
  
Tel: +44 1425 655555 (Opening Hours 9am - 5pm)  
  
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 and Chemical Hazards Not classified.  
Human health Not classified. Environment Not classified.

Classification (67/548/EEC)

Not classified.

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

2.2. Label elements

EC No. 287-390-8  
Label In Accordance With (EC) No. 1272/2008  
No pictogram required.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product name MORINGA SEED OIL  
CAS-No. 85507-69-3  
EC No. 287-390-8

SECTION 4: FIRST AID MEASURES

# MORINGA SEED OIL

## 4.1. Description of first aid measures

Inhalation

No vapours present at normal temperatures.

Ingestion

Product is not considered hazardous. Product is edible quality. Seek medical advice in case of any adverse effects.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

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

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

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## SECTION 5: FIREFIGHTING MEASURES

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### 5.1. Extinguishing media

Extinguishing media

Use as appropriate: CO<sub>2</sub>, dry powder or foam type extinguishers, spraying extinguishing media to base of flames.

Unsuitable extinguishing media

Do not use direct water jet on burning material.

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

Specific hazards

Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

### 5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Keep away from sources of heat, sparks and flames. Cool endangered drums with water.

Protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Avoid inhalation and direct contact with skin and eyes. Use individual protective equipment (safety glasses, waterproof boots, suitable protective clothing) in case of major spillages.

### 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

Remove all potential ignition sources. Contain spilled material. Cover with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Observe state, federal & local regulations.

### 6.4. Reference to other sections

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

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## SECTION 7: HANDLING AND STORAGE

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### 7.1. Precautions for safe handling

Apply good manufacturing practise and industrial hygiene practises, ensuring proper ventilation. Observe good personal hygiene and do not eat, drink or smoke whilst handling.

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

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep air contact to a minimum. Keep away from heat sources and protected from light.

### 7.3. Specific end use(s)

## MORINGA SEED OIL

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

#### 8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash station.

Engineering measures

Provide adequate ventilation.

Respiratory equipment

In case of inadequate ventilation use suitable respirator.

Hand protection

Chemical resistant gloves (PVC)

Eye protection

Wear approved safety goggles.

Hygiene measures

Good personal hygiene practices are always advisable, especially when working with chemicals / oils.

Personal protection

Avoid inhalation and contact with skin and eyes.

Skin protection

Wear an apron.

Environmental Exposure Controls

Avoid discharging into drainage water. Only eliminate by authorised companies.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

|                  |                                     |
|------------------|-------------------------------------|
| Appearance       | Liquid                              |
| Colour           | Yellow.                             |
| Odour            | Free from rancid and foreign odours |
| Relative density | 0.912 - 0.922 20c                   |
| Flash point (°C) | >300c                               |

#### 9.2. Other information

|                  |               |
|------------------|---------------|
| Refractive Index | 1.464 - 1.474 |
|------------------|---------------|

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity

It presents no significant reactivity hazards, by itself or in contact with water.

#### 10.2. Chemical stability

Stable under normal temperature conditions.

#### 10.3. Possibility of hazardous reactions

#### 10.4. Conditions to avoid

#### 10.5. Incompatible materials

Materials To Avoid

Strong acids. Strong alkalis. Strong oxides.

#### 10.6. Hazardous decomposition products

None (thermal decomposition products are H<sub>2</sub>O and CO<sub>2</sub>)

## MORINGA SEED OIL

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

Toxicological information

No information available.

### SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not known.

#### 12.1. Toxicity

#### 12.2. Persistence and degradability

#### 12.3. Bioaccumulative potential

#### 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

Dispose of in compliance with all local and national regulations.

### SECTION 14: TRANSPORT INFORMATION

General

Not regulated.

#### 14.1. UN number

#### 14.2. UN proper shipping name

#### 14.3. Transport hazard class(es)

#### 14.4. Packing group

#### 14.5. Environmental hazards

#### 14.6. Special precautions for user

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

### SECTION 15: REGULATORY INFORMATION

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

Guidance Notes

CHIP for everyone HSG(108).

EU Legislation

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

## MORINGA SEED OIL

### 15.2. Chemical Safety Assessment

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#### SECTION 16: OTHER INFORMATION

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SDS No. 20460  
Date 23/07/2014  
Risk Phrases In Full  
NC Not classified.  
Hazard Statements In Full





## Product Specification

| PRODUCT DETAILS                      |                                                                                                                                                                                                                                                                                                                    |                 |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Product Name                         | MORINGA SEED OIL                                                                                                                                                                                                                                                                                                   |                 |
| Product Code                         | OVMORI                                                                                                                                                                                                                                                                                                             |                 |
| Tariff Number                        | 15159060                                                                                                                                                                                                                                                                                                           |                 |
| Country of Origin                    | Various                                                                                                                                                                                                                                                                                                            |                 |
| INCI Name                            | Moringa Oleifera, Moringaceae                                                                                                                                                                                                                                                                                      |                 |
| 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.<br>This product does not contain any solvents or additives. |                 |
| Food Grade Status                    | No                                                                                                                                                                                                                                                                                                                 |                 |
| Kosher Certified                     | Not Certified                                                                                                                                                                                                                                                                                                      |                 |
| Halal Certified                      | Suitable                                                                                                                                                                                                                                                                                                           |                 |
| 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                | Please request Flowchart                                                                                                                                                                                                                                                                                           |                 |
| Identification                       | CAS No: 93165-54-9                                                                                                                                                                                                                                                                                                 | EC No:296-941-1 |
| PHYSICAL AND CHEMICAL CHARACTERISTIC |                                                                                                                                                                                                                                                                                                                    |                 |
| Appearance                           | Liquid                                                                                                                                                                                                                                                                                                             |                 |
| Colour                               | Pale Yellow to Yellow                                                                                                                                                                                                                                                                                              |                 |
| Odour                                | Characteristic                                                                                                                                                                                                                                                                                                     |                 |
| Relative Density @ 20°C              | 0.909 - 0.922                                                                                                                                                                                                                                                                                                      |                 |
| Refractive Index @ 20°C              | 1.464 - 1.474                                                                                                                                                                                                                                                                                                      |                 |
| Flash Point °C                       | ≥300                                                                                                                                                                                                                                                                                                               |                 |
| Solubilities                         | Insoluble in water. Soluble in common organic solvents.                                                                                                                                                                                                                                                            |                 |
| Acid Value (mgKOH/g)                 | ≤1.0                                                                                                                                                                                                                                                                                                               |                 |
| Saponification Value (mgKOH/g)       | 185.0 - 197.0                                                                                                                                                                                                                                                                                                      |                 |
| Peroxide Value (Meg/kg)              | ≤5.0 (at time of production analysis)                                                                                                                                                                                                                                                                              |                 |
| Fatty Acid Profile (%)               |                                                                                                                                                                                                                                                                                                                    |                 |
| C16:0 Palmitic Acid                  | ≤10.5                                                                                                                                                                                                                                                                                                              |                 |
| C18:0 Stearic Acid                   | ≤12.0                                                                                                                                                                                                                                                                                                              |                 |
| C18:1 Oleic Acid                     | 65.0 - 85.0                                                                                                                                                                                                                                                                                                        |                 |
| C18:2 Linoleic Acid                  | ≤22.0                                                                                                                                                                                                                                                                                                              |                 |
| C20:0 Arachidic Acid                 | ≤2.0                                                                                                                                                                                                                                                                                                               |                 |
| FRAGRANCE ALLERGENS                  |                                                                                                                                                                                                                                                                                                                    |                 |
| NONE PRESENT                         |                                                                                                                                                                                                                                                                                                                    |                 |
| FOOD ALLERGENS                       |                                                                                                                                                                                                                                                                                                                    |                 |
| NONE PRESENT                         |                                                                                                                                                                                                                                                                                                                    |                 |
| IFRA                                 |                                                                                                                                                                                                                                                                                                                    |                 |

|                               |                                                                                         |  |
|-------------------------------|-----------------------------------------------------------------------------------------|--|
| NONE PRESENT                  |                                                                                         |  |
| <b>STORAGE AND SHELF LIFE</b> |                                                                                         |  |
| Storage                       | Store in tightly closed container with minimum headspace in a cool, dark and dry place. |  |

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## Vegan and Vegetarian Statement

| IDENTIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Product:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MORINGA SEED OIL |
| Cas No:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 93165-54-9       |
| EINECS No:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 296-941-1        |
| STATEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |
| <p>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.</p> <p>It does not contain any animal ingredients or animal by products. No animal ingredients or by products are used in the manufacturing process.</p> <p>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.</p> |                  |