

# **CERTIFICATE OF ANALYSIS**

Product Name CURCUMA OIL Botanical Name Curcuma Longa L

Batch Number 4465210

Best Before April 2025 Production Method: Steam distillation

Country of Origin India

| Parameter Specification |                     | Result   | Method |
|-------------------------|---------------------|----------|--------|
| Physical and Analytica  | al Parameters       |          |        |
| Appearance              | Free flowing liquid | Complies | Visual |
| 0.1                     | 5                   | - "      |        |

| Appearance                           | Free flowing liquid                  | Complies | Visual       |
|--------------------------------------|--------------------------------------|----------|--------------|
| Colour                               | Dark Yellow                          | Complies | Visual       |
| Odour                                | A warm note of Turmeric              | Complies | Organoleptic |
| Specific gravity @ 25°C              | 0.871 to 0.960                       | 0.9238   | FCC          |
| Refractive Index @ 20 <sup>0</sup> C | 1.475 to 1.520                       | 1.5055   | FCC          |
| Optical rotation                     | -22 <sup>0</sup> to +45 <sup>0</sup> | +6.5°    | FCC          |

# **Heavy Metal Analysis**

| Total Heavy Metals | < 10 ppm  | Complies | ICP - MS |
|--------------------|-----------|----------|----------|
| Arsenic            | < 1 ppm   | Complies | ICP – MS |
| Lead               | < 3 ppm   | Complies | ICP – MS |
| Mercury            | < 0.1 ppm | Complies | ICP – MS |
| Cadmium            | < 1 ppm   | Complies | ICP - MS |

Warning: The product is irritant, avoid contact with skin and eyes.

Storage : Do not store in close proximity to heat, sparks, open flames, strong acids, and strong bases. To minimise product degradation, avoid prolonged exposure of the material to air. Keep container tightly closed when not in use. Mix well before use.

Shelf life: Not more than 3 Years, when stored as recommended above.



| ALLERGENS DECLARATION |             |  |  |
|-----------------------|-------------|--|--|
| Product Name          | CURCUMA OIL |  |  |
|                       |             |  |  |

Directive 2000/13/EC regarding labelling, presentation and advertising of Foodstuffs, Article 6(3a), 10 & 11, and Annex 111a, as amended by Directive 2007-68-EC, establishes a list of food ingredients which must be indicated on the label of foodstuffs as they are likely to cause adverse reactions in susceptible individuals.

| COMPONENT   | PRESENT IN THE PRODUCT | PRESENT IN<br>THE SOURCE | PRESENT IN SAME LINE | PRESENT IN<br>SAME<br>PLANT |
|---|------------------------|--------------------------|----------------------|-----------------------------|
| Cereals containing gluten (i.e. Wheat, rye, barley, oats, spelt, kamut or their hybridised strains and products thereof, except,  a) wheat based glucose syrups including dextrose  b) Wheat based maltodextrins  c) glucose syrups based on barley  d) cereals used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages.  | Nil                    | Nil                      | Nil                  | Nil                         |
| Crustaceans and products thereof  | Nil                    | Nil                      | Nil                  | Nil                         |
| EGGS and products thereof   | Nil                    | Nil                      | Nil                  | Nil                         |
| FISH and products thereof except:- a) fish gelatine used as a carrier for vitamin or carotenoid preparations b) fish gelatine or isinglass used as fixing agent in beer and wine.   | Nil                    | Nil                      | Nil                  | Nil                         |
| Peanuts and products thereof  | Nil                    | Nil                      | Nil                  | Nil                         |
| Soybeans and products thereof, except  a) fully refined soybean oil and fat  b) natural mixed tocopherols (E306) natural D-alpha tocopherol, natural D-alpha tocopherol succinate from soybean sources  c) vegetable oils derived phytosterols and phytostrol esters from soybean sources  d) plant stanol ester produced from vegetable oil sterols from soybean   | Nil                    | Nil                      | Nil                  | Nil                         |
| MILK and products thereof (including lactose), except  a) whey used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages  b) Lactitol   | Nil                    | Nil                      | Nil                  | Nil                         |
| Nuts i.e. almonds ( <i>Amygdalus communis L</i> ), hazelnuts ( <i>Corylus avellana</i> ), walnuts, ( <i>juglands regia</i> ), cashews ( <i>Anacardium occidientale</i> ), pecan nuts ( <i>Carya illinoises (Wangenh) K. Koch)</i> , Brazil nuts ( <i>Bertholletia excela</i> ), pistachio nuts ( <i>Pistacia vera</i> ), macadamia nuts and Queensland nuts <i>Macadamia ternifolia</i> ), and products thereof, except  a) nuts used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages. | Nil                    | Nil                      | Nil                  | Nil                         |



| Celery and Products thereof   | Nil | Nil | Nil | Nil |
|---|-----|-----|-----|-----|
| Mustard and products thereof  | Nil | Nil | Nil | Nil |
| Sesame seeds and products thereof   | Nil | Nil | Nil | Nil |
| Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10mg/litre as ${\rm SO}_2$ | Nil | Nil | Nil | Nil |
| Lupin and products thereof  | Nil | Nil | Nil | Nil |
| Molluscs and products thereof   | Nil | Nil | Nil | Nil |

| PREVENTION OF CROSS CONTAMINATION |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Method                            | Working spaces and the equipments are cleaned and the goods are stored under standard conditions |  |  |  |

The above is based on the main allergens referred to in the following: -

FDA: The Food Allergen Labelling and Consumer Protection Act of 2004(August 2004) (Title II of Public Law 108-282) effective from 1<sup>st</sup> Jan 2006.

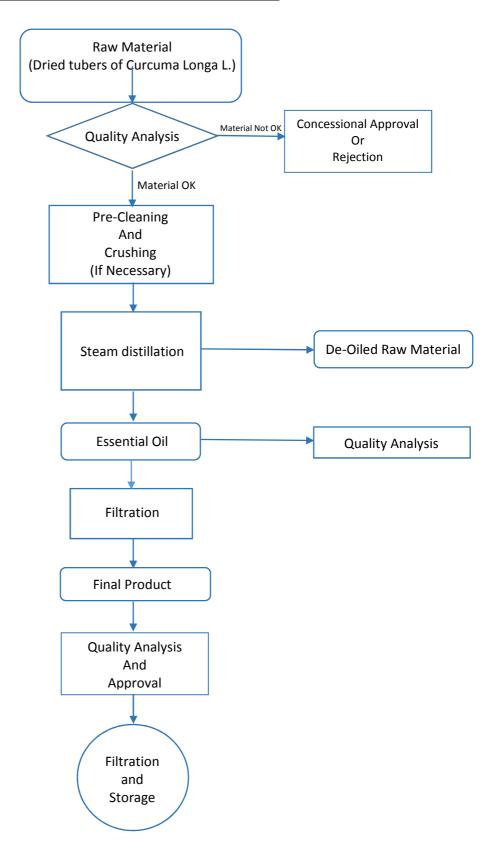
Annex IIIa, of the Council Directive (EC) No 2003/89 of the 10<sup>th</sup> November 2003, amending Directive 2000/13/EC as regards indication of the ingredients present in foodstuffs. Further amended by Council Directive 2007/68/EC of the 27<sup>th</sup> November 2007

Codex Alimentarius: General Standard for the labelling of pre-packaged foods, Codex Standard 1-1985 (Rev 1-1991)

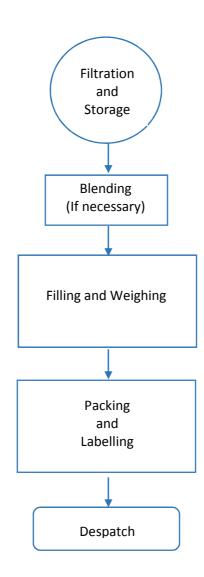
We hereby Declare that the information provided above is True to the best of our knowledge and hence the aforementioned Product does not Contain elements that cause Adverse reactions in Susceptible Individuals as per the references provided in the respective Columns.



#### PROCESS FLOWCHART FOR TURMERIC ROOT OIL



# MYSTIC M@MENTS





22.08.2019

#### **GENETICALLY MODIFIED ORGANISMS – STATEMENT**

This is to certify that the below mentioned product supplied by MADAR Corporation Limited

#### Product:- CURCUMA OIL

- **a)** Does not contain or derived from species which have been approved and released as GMO according to European Union Directive 90/220/EEC.
- b) Does not contain any genetically modified protein or DNA
- c) Not produced from possible genetically modified material. Also no genetically modified organisms like enzymes, micro-organisms, growing substrates, additives, processing aids etc. are used in connection with the production of this product or any of its ingredients or components.



17-11-2017

# IFRA 48<sup>TH</sup> AMENDMENT CONFIRMATION

PRODUCT NAME : CURCUMA OIL

CAS NUMBER : 8024-37-1

FEMA NUMBER : 3085

CHEMICAL NAME : Curcuma Longa L

We hereby declare that the above material supplied by MADAR Corporation Limited confirms to the following requirements:

- The product is manufactured as per IFRA code of practices.
- The product is neither restricted nor prohibited by IFRA for use in Fragrances.
- Product is manufactured in keeping intention of the fragrance use.
- The product confirms to IFRA 48<sup>th</sup> amendment.



# **SPECIFICATION SHEET / MATERIAL SAFETY DATA SHEET**

# **SPECIFICATION SHEET**

Product : CURCUMA OIL

CAS # : 8024-37-1

| TEST                                 | REQUIREMENT                     | RESULTS  |
|--------------------------------------|---------------------------------|----------|
| Appearance                           | Free flowing transparent liquid | Conforms |
| Colour                               | Pale yellow to orange yellow    | Conforms |
| Odour                                | A warm note of Turmeric         | Conforms |
| Specific gravity @ 25 <sup>0</sup> C | Between 0.900and 0.940          | Conforms |
| Refractive Index at 20°C             | Between 1.480 and 1.510         | Conforms |
| Optical rotation                     | Between -22 and +30°            | Conforms |
| Heavy Metal                          | Less than 5ppm                  | Conforms |
| Microbial                            | Not Applicable                  | NA       |

# **QUALITY CONTROL:**

- 1. The product is subjected to all the required analysis to conform the internal specification (As detailed above).
- 2. The product is subjected gas chromatographic analysis to find out the percentage of Specific components, GC profile and impurities.
- 3. The product is subjected to careful organoleptic examination.

#### **STANDARDS:**

Oil confirms to internal specifications (As detailed above). Specific purpose blends can also be supplied on request.



# **MATERIAL SAFETY DATA SHEET**

#### 1. IDENTIFICATION

Product Name : Curcuma oil Category of product : Essential oil

Description : The product is Natural and is obtained by the Steam

Distillation dried tubers of Curcuma Longa L

Cas Number : 8024-37-1 Physical state : Liquid

Colour : Pale yellow to Orange yellow

Odour : A warm note of Curcuma/ Turmeric

Company : MADAR Corporation Limited

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

Phone: 01425 655555

Email: technical@madarcorporation.co.uk

#### 2. COMPOSITION

<u>CAS NO</u> <u>MAJOR INGREDIENTS</u>

99-83-2 Phellandrene 532-65-0 Turmerone

----- EC Classifications-----

SYMBOL(S)

Xi > Irritant

**RISK PHRASES** 

R10 > Flammable
R36 > Irritating to eyes
R38 > Irritating to skin
R22 > Harmful if swallowed

SAFETY PHRASES

> Keep away from sources of ignition - No smoking

S24 > Avoid contact with skinS25 > Avoid contact with eyes



#### 3. HAZARDS IDENTIFICATION

#### **Risk Summary**

Flammable, Harmful if swallowed. It is irritating to eyes and skin.

#### 4. FIRST AID MEASURES

#### **Eye Contact**

Flush with water for at least 15 minutes. If irritation develops, get medical attention

#### Skin contact

Remove contaminated clothing. Wash affected area with plenty of soap water. If irritation develops, get medical attention.

#### Inhalation

Seek fresh air immediately. If breathing is difficult, get medical attention.

#### Ingestion

Drink lot of water to dilute substance. Get medical attention.

#### **5. FIRE FIGHTING MEASURES**

#### Means to Extinguish

Carbon dioxide, dry chemical, foam. If water must be used, use as a spray only.

# **Unusual Fire/Explosion Hazards**

Flammable liquid. Avoid heat, sparks and open flames. Non explosive.

#### **6. ACCIDENTAL RELEASE MEASURES**

#### **Personal precaution**

Specifically given in section 8.

# **Environmental precautions**

Do not discharge into streams, ponds or Public waters.

# **Cleanup Procedures**

Small spills should be adsorbed by dirt, sand or other adsorbent. Large spills may be diked and pumped into closed containers for recovery or disposal.

#### 7. HANDLING AND STORAGE

#### **Handling**

Wear safety glasses, rubber gloves and apron when handling.

#### **Storage**

Do not store in close proximity to heat, sparks, open flames, strong acids, and strong bases. To minimise product degradation, avoid prolonged exposure of the material to air. Keep container tightly closed when not in use.

#### Shelf life

Not more than 3 years, when stored as recommended above.

# 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### **EXPOSURE CONTROLS:**

# Ventilation

Mechanical exhaust may be needed in confined and warm areas.

# **Safety Station**

An eyewash and safety shower should be readily available.

#### **Contaminated Equipment**

Clean contaminated equipment with soap and water.

#### PERSONAL PROTECTION EQUIPMENT:

#### **Eye Protection**

As a precaution, wear safety glasses or goggles.

# **Hand protection**

Wear standard industrial type rubber gloves.

#### **Skin Protection**

A rubber apron is recommended when handling large quantities of this material.

#### **Respiratory protection**

A respirator is not normally required. If vapor concentration is high use a organic vapour respirator.



#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Volatile clear mobile liquid
Colour : Pale yellow to Orange yellow
Odour : A warm note of Turmeric

Boiling point : Not determined Vapour pressure : Not determined

Flash point : 208°C

Oxidising properties : Not determined Explosive properties : Not explosive Flammability limits : Not determined

Specific gravity @ 25°C : Between 0.900 and 0.940 Refractive Index at 20°C : Between 1.480 and 1.510 Optical rotation : Between -22° and +30°

Solubility in water (Weight %) : < 0.5

#### **10. STABILITY AND REACTIVITY**

# **Conditions to Avoid**

Prolonged or excessive heat and/or exposure to air may cause decomposition or oxidation of the material.

#### **Materials to avoid**

Contact with Chemicals may decompose the ingredients present in it. If possible avoid contact with all kinds of Chemical.

#### 11. TOXICOLOGICAL INFORMATION

Not Available

#### 12. ECOLOGICAL INFORMATION

Not Available

# 13. DISPOSAL CONSIDERATION

In event of spillage, the oil can be contained by sand or soil and absorbed by paper from which the oil will evaporate.



#### 14. TRANSPORT INFORMATION

The oil can be safely stored or transported in sound metal drums or bottles at ambient temperatures. Store in full sealed containers, keep cool and protect from light to preserve quality, preferred container for long term storage - stainless steel or glass.

#### AIR FREIGHTS:

Air freights are done in conformance to latest IATA/ICAO regulations with the name and address of the notifying party on the cartons

#### 15. REGULATORY INFORMATION

#### **REGULATORY STATUS**

The product is listed in CAS
CAS# 8024-37-1
The product is registered in FDA, Fema, FCC and in the council of Europe.
FDA NO # 182.10
Fema NO # 3085
Council of Europe NO# 163n

#### **16. OTHER INFORMATION**

#### **REFERENCES**

- 1. The Essential oils by Gunther Volume IV
- 2. Wealth Asia disk 2.2(Publication of CSIR, India)
- 3. Essential oils 1976- 1978 by Dr. Brain M Lawrence
- 4. Food Chemical codex
- 5. Source Book of Flavours by Gary Reineccius
- 6. Flavour Technology by Heath.

<u>USES:</u> The oil widely used as flavoring of spicy food products and to lesser extent, in perfumes of heavy oriental character

Computer edited Certificate - valid without signature



# **VEGAN & VEGETARIAN STATEMENT**

To Whom It May Concern,

#### Product - Curcuma Oil

The above mentioned product manufactured and supplied by MADAR Corporation Limited, comply with a vegan or vegetarian diet. They contain no animal ingredients or animal by-products, use no animal ingredients or by-products in the manufacturing process, and are not tested on animals.

Therefore it is suitable for vegan and vegetarians.