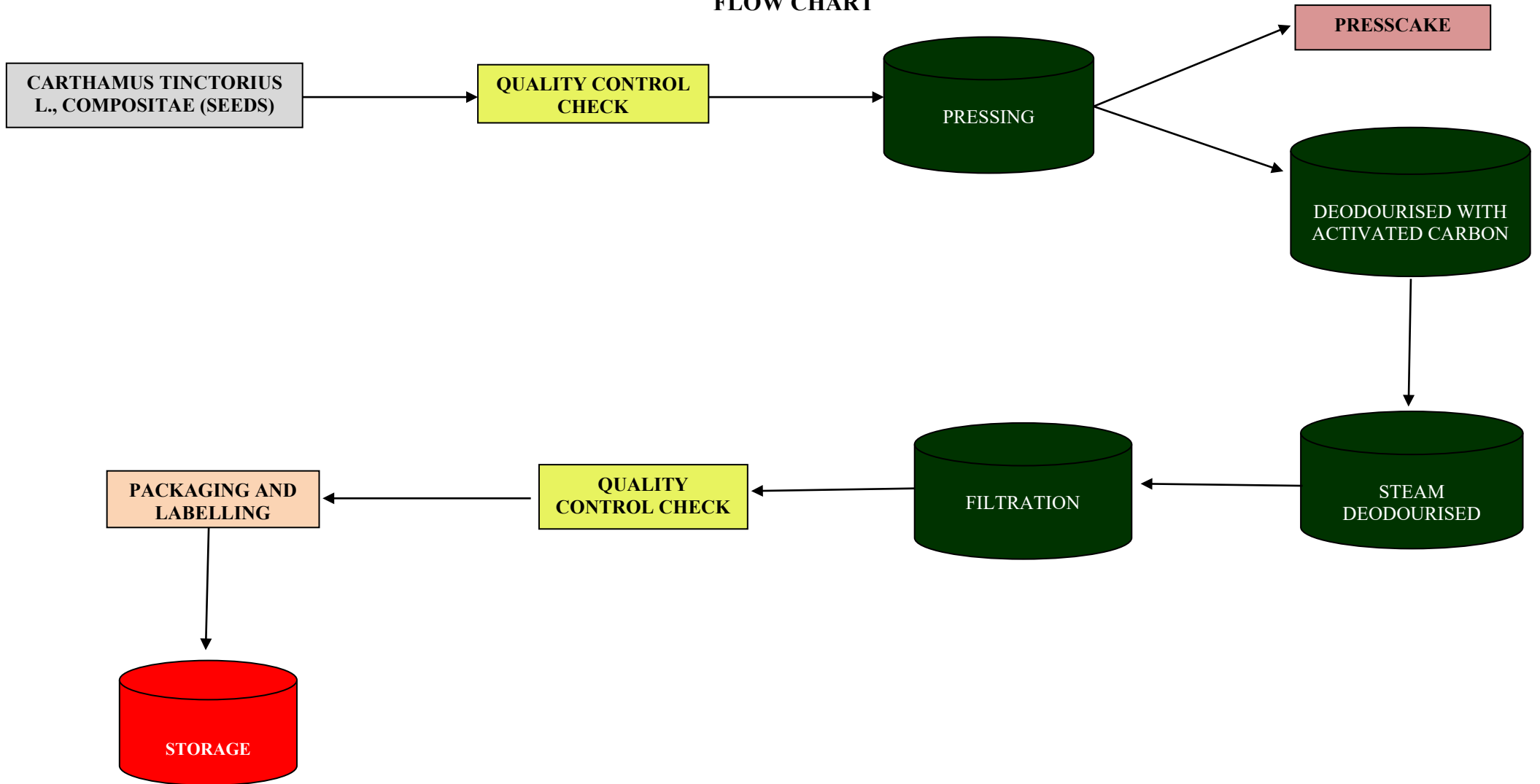


## Certificate of Analysis

PRODUCT DETAILS					
Product Name		SAFFLOWER OIL REFINED			
Tariff Number		15121910			
Country of Origin		EU			
Batch Number		4462002			
Expiry Date		February 2024			
Identification		CAS No: 8001-23-8		EC No: 232-276-5	
PHYSICAL AND CHEMICAL CHARACTERISTIC					
		SPECIFICATION RANGE		RESULTS	
Appearance		Liquid		Conforms	
Colour		Light Yellow		Conforms	
Odour		Neutral		Conforms	
Relative Density @ 20°C		0.918 - 0.924		0.92	
Refractive Index @ 20°C		1.473 - 1.479		1.476	
Flash Point °C		≥200		Conforms	
Acid Value (mgKOH/g)		≤0.6		0.04	
Iodine Value (mg/g)		135 - 150		144.5	
Saponification Value (mgKOH/g)		188 - 194		192.1	
FATTY ACID PROFILE (%)					
CONSTITUENT RANGE	RESULTS	CONSTITUENT RANGE	RESULTS	CONSTITUENT RANGE	RESULTS
C14:0 Myristic Acid ≤0.2	0.1	C16:0 Palmitic Acid 4.0 - 10.0	6.6	C18:0 Stearic Acid 1.0 - 5.0	2.9
C18:1 Oleic Acid 8.0 - 21.0	12.6	C18:2 Linoleic Acid 68.0 - 83.0	76.7	C18:3 Linolenic Acid ≤0.5	0.1
C20:0 Arachidic Acid ≤0.5	0.2	C20:1 Eicosenoic Acid ≤0.5%	0.2	C22:0 Behenic Acid ≤1.0	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.			

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PROCESSING – SAFFLOWER OIL REFINED  
FLOW CHART





**SAFETY DATA SHEET  
SAFFLOWER OIL REFINED**

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

**1.1. Product identifier**

**Product name** SAFFLOWER OIL REFINED  
**Product number** SAFFLR1000  
**Synonyms; trade names** Carthamus Tinctorius Seed Oil  
**CAS number** 8001-23-8  
**EC number** 232-276-5

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

**against Identified uses** Fragrances

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

**Supplier** Madar Corporation Limited  
19 - 20 Sandealth Industrial Estate  
Fordingbridge  
Hampshire  
SP6 3BE  
01425 655555  
technical@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** Not Classified  
**Environmental hazards** Not Classified

**2.2. Label elements**

**EC number** 232-276-5  
**Hazard statements** NC Not Classified

**2.3. Other hazards**

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

**Product name** SAFFLOWER OIL REFINED  
**CAS number** 8001-23-8

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

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

# SAFFLOWER OIL REFINED

EC number 232-276-5

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact** Wash skin thoroughly with soap and water or use an approved skin cleanser. Get medical attention if any discomfort continues.

**Eye contact** Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

**General information** No further information available at this time.

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

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use as appropriate carbon dioxide (CO<sub>2</sub>), dry chemical or foam

**Unsuitable extinguishing media** For safety reasons do not use full water jet.

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

**Specific hazards** This product is made up of inflammable material with low risk. The product may only form ignitable mixtures or burn only upon heating above the flash point. However, minor contamination by lightly volatile hydrocarbons may increase the hazard. Ignition hazard at welding at the empty container. Dangerous combustion residues: smoke, carbon monoxide, carbon dioxide.

**Hazardous combustion products** Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

### 5.3. Advice for firefighters

**Protective actions during firefighting** Control run-off water by containing and keeping it out of sewers and watercourses. Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters** Wear full protective clothing

## SECTION 6: Accidental release measures

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

**Personal precautions** Avoid contact with skin, eyes and clothing. For personal protection, see Section 8. Wash thoroughly after dealing with a spillage.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid release to the environment.

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

**Methods for cleaning up** Absorb with inert, non-combustible, inorganic absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite). Sweep up and remove to an approved disposal container. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13. Wash spill site after material pick up is complete. Wash thoroughly after dealing with a spillage.

### 6.4. Reference to other sections

## SAFFLOWER OIL REFINED

### 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. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

**Storage precautions** Keep container tightly closed, in a cool, well ventilated place.

#### 7.3. Specific end use(s)

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

##### Protective equipment



**Appropriate engineering controls**

Provide eyewash station

**Personal protection**

Use personal protection according to Directive 89/686/EEC

**Eye/face protection**

Approved safety goggles.

**Hand protection**

Chemical resistant gloves (PVC)

**Other skin and body protection**

Wear an apron.

**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>	Light yellow
<b>Odour</b>	Neutral
<b>Initial boiling point and range</b>	≥350°C
<b>Flash point</b>	≥ 200°C
<b>Relative density</b>	0.918 - 0.924 @ 20°C
<b>Solubility(ies)</b>	Insoluble in water. Soluble in oil and ethanol

#### 9.2. Other information

**Refractive index** 1.473 - 1.479 @ 20°C

**Hydrocarbon Content**

## SAFFLOWER OIL REFINED

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** Oxidation with atmospheric oxygen. Formation of free fatty acids.

#### 10.2. Chemical stability

**Stability** Stable under the prescribed storage conditions.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Reacts with oxidants.

#### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition.

#### 10.5. Incompatible materials

**Materials to avoid** Avoid contact with strong oxidising agents.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Product does not decompose at proper handling

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** No information available.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** No information available.

##### Skin sensitisation

**Skin sensitisation** No information available.

### SECTION 12: Ecological information

#### 12.1. Toxicity

##### Acute aquatic toxicity

**Acute toxicity - terrestrial** Not available.

#### 12.2. Persistence and degradability

**Biodegradation** Expected to be readily biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Possible

#### 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

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not empty into drains. Do not reuse empty containers.

### SECTION 14: Transport information

## SAFFLOWER OIL REFINED

**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 MARPOL 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).

**Guidance** CHIP for everyone HSG228.

### 15.2. Chemical safety assessment

## SECTION 16: Other information

**Revision date** 11/10/2019

**Revision** 1

**SDS number** 5349

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

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

## Product Specification

PRODUCT DETAILS		
Product Name	SAFFLOWER OIL REFINED	
Product Code	SAFFLR1000	
Tariff Number	15121910	
Country of Origin	EU	
INCI Name	Carthamus Tinctorius Seed Oil	
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	Not certified but suitable	
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	Please request Flowchart	
Identification	CAS No: 8001-23-8	EC No: 232-276-5
PHYSICAL AND CHEMICAL CHARACTERISTIC		
Appearance	Liquid	
Colour	Light Yellow	
Odour	Neutral	
Relative Density @ 20°C	0.918 - 0.924	
Refractive Index @ 20°C	1.473 - 1.479	
Flash Point °C	≥200	
Boiling Point °C	≥350	
Solubilities	Insoluble in Water, Soluble in Oil and Ethanol	
Acid Value (mgKOH/g)	≤0.6	
Iodine Value (mg/g)	135 - 150	
Saponification Value (mgKOH/g)	188 - 194	
FATTY ACID PROFILE (%)		
C14:0 Myristic Acid ≤0.2	C16:0 Palmitic Acid 4.0 - 10.0	C18:0 Stearic Acid 1.0 - 5.0
C18:1 Oleic Acid 8.0 - 21.0	C18:2 Linoleic Acid 68.0 - 83.0	C18:3 Linolenic Acid ≤0.5
C20:0 Arachidic Acid ≤0.5	C20:1 Eicosenoic Acid ≤0.5%	C22:0 Behenic Acid ≤1.0
FOOD ALLERGENS		
NONE PRESENT		
IFRA + FRAGRANCE ALLERGENS		
NOT APPLICABLE		
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.	

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## Vegan and Vegetarian Statement

IDENTIFICATION	
Product:	SAFFLOWER OIL REFINED (SAFFLR1000)
Cas No:	8001-23-8
EINECS No:	232-276-5
STATEMENT	
<p>We, Madar Corporation Limited, from information received from our supplier, hereby declare that the material listed above is suitable for the following:</p> <p>Vegans (Excludes all animal derived products, including dairy, eggs, leather, bee products (beeswax and honey).</p> <p>Lacto Vegetarians ( Same as vegan but allows milk products and bee products.</p> <p>Ovo Vegetarians (Same as vegan but allows egg products and bee products)</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>	