### <u>CERTIFICATE OF ANALYSIS</u> <u>VIRGIN FLAXSEED OIL</u>

Batch No:4545708Best Before Date :June 2026

TEST	SPECIFICATION	ANALYSIS
Acid Value (mg KOH/g)	3.0 maximum	1.55
Saponification Value (mg KOH/g)	188 - 195	Complies
Iodine Value (gl <sub>2</sub> /100g oil)	160 - 200	183.3
Peroxide Value (meqO <sub>2</sub> /kg)	15.0 maximum	Complies
Unsaponifiable Matter (%)	1.5 maximum	Complies
Refraction Index (23°C)	1.478- 1.483	Complies
Relative Density (20°C)	0.926- 0.933	Complies
Volatile	0.2% maximum	Complies
Ash	0.15% maximum	Complies

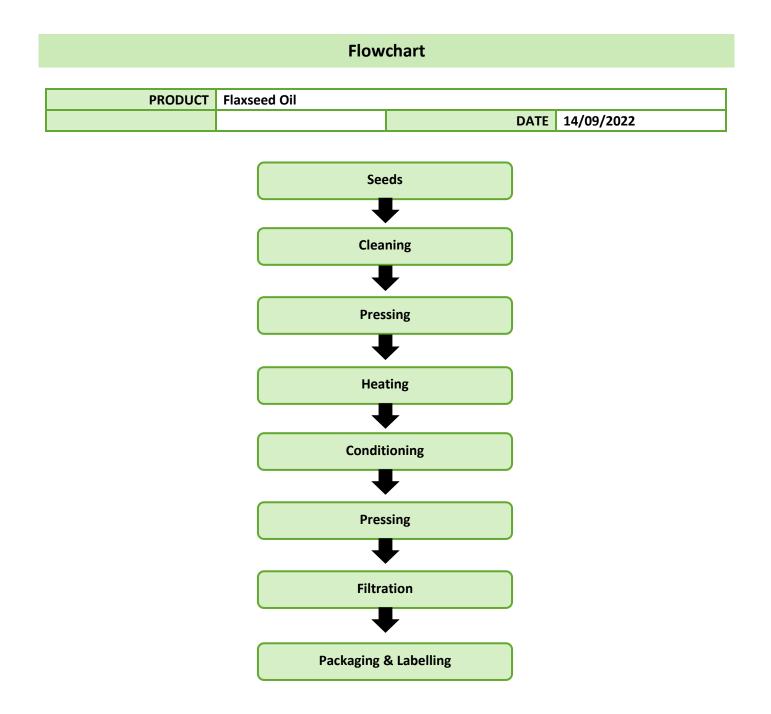
FATTY ACID PROFILE (%)		
C16:0 Palmitic	5.0-7.0	Complies
C18:0 Stearic	2.0 - 8.0	Complies
C18:1 Oleic	20.0-30.0	Complies
C18:2 Linoleic	15.0 – 20.0	Complies
C18:3 Linolenic	45.0-55.0	Complies

### **GMO, Vegetarian & Vegan Suitability Statement**

MADAR Corporation Limited can confirm that the above listed product has not been tested in animals and does not contain dairy or any other animal product, by product or derivative and is therefore suitable for vegetarian and vegan use.

We hereby state and certify that the the above is also not derived/ produced from a raw material that has been genetically modified.

16/06/2022



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### **MATERIAL SAFETY DATA SHEET**

#### 01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

1.1 Product lo	dentifier				
Product Name		Flaxseed Oi			
<b>Biological Defini</b>	ition				
INCI Name		Linum Usitatissimum Seed Oil			
Synonyms & Tra	ade Names				
CAS-No	8001-26-1	EC No.	232-278-6	EINECS No.	232-278-6
1.2 Relative i	dentified uses of the su	ubstance or mixtu	ure and uses advis	ed against	
No additio	onal data				
1.3 Details of	the supplier of the saf	ety data sheet			
Madar Co	rporation Limited				
19-20 San	dleheath Industrial Est	ate			
Fordingbr	idge				
SP6 1PA					
1.4 Emergen	cy Tel. No.	+44(0)	1425 655 555		

#### 02. HAZARDS IDENTIFICATION

## MATERIAL SAFETY DATA SHEET

None
No additional data
No additional data
No additional data
No additional data

#### 03. COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Composition
	100.0% Flaxseed Oil*
	CAS: 8001-26-1
	Classification:
	Not classified as hazardous.
	*In raw form, an approximate fatty acid breakdown:
	5.00 – 7.00% Palmitic Acid
	3.00 – 6.00% Stearic Acid
	20.0 – 30.0% Oleic Acid
	15.0 – 20.0% Linoleic Acid
	45.0 – 55.0% Linolenic Acid

#### 04. FIRST AID MEASURES

4.1 Description of first aid measures		
Inhalation	Remove to fresh air immediately. Remain at rest in a position which is comfortable for	
	breathing. If discomfort occurs/continues, seek medical attention.	
Ingestion	Do NOT induce vomiting. Wash mouth with clean water and drink plenty of water. Never give	
	anything by mouth to an unconscious person. If discomfort occurs/continues, seek medical	
	attention.	
Skin Contact	Remove contaminated clothing and wash before reuse. Wash skin immediately with soap and	
	water. If discomfort occurs/continues, seek medical attention.	

### MATERIAL SAFETY DATA SHEET

Eye (	Contact	Rinse with clean water for a minimum of fifteen minutes. If safe to do so, remove contact lenses and continue rinsing. Ensure to rinse under eyelids. If discomfort occurs/continues, seek medical attention.	
4.2	2 Most important symptoms and effects, both acute and delayed No additional data		
4.3 Indication of any immediate medical attention and special treatment needed		of any immediate medical attention and special treatment needed	
	Treat symp	tomatically.	

#### 05. FIRE-FIGHTING MEASURES

Extinguishing Media
Foam, Sand, Extinguishing Powder, Carbon Dioxide
Do NOT use Water.
Special hazards arising from the product
Produces a complex mixture of (irritating) fumes during combustion: CO, CO2, Acroleine
Advice for firefighters
Wear self-contained respiratory equipment and appropriate protective clothing at all times.

#### 06. ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures
	Ensure adequate ventilation and avoid inhalation. Wear suitable personal protection equipment. Avoid contact with eyes and skin. Eliminate all ignition sources.
6.2	Environmental Precautions
	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Material should not be released into the environment.
6.3	Methods and material for containment and cleaning up.
	Absorb product if possible, with a suitable inert absorbent material (sand, earth, sawdust, universal binder, vermiculite) and shovel into appropriate containers for disposal (see section 13). If absorbed in special oil absorbers, sawdust or clothes, keep in fire-safe place as self-ignition may occur, therefore, it is advised to use inert absorbents only.
6.4	Reference to other sections
	Section 13

#### 07. HANDLING AND STORAGE

7.1 Precautions for safe handling

### MATERIAL SAFETY DATA SHEET

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation of the working area, safety showers and an eye wash station near the workplace. Avoid release into the environment. Use appropriate personal protection equipment. Keep away from direct sunlight, heat, sparks, flames and other sources of ignition. Avoid exposure to air (oxygen). Use earthed equipment by preference. Do not eat, drink or smoke in the work area. Wash hands after handling material. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Store in original containers. Protect from heat, freezing and light including sunlight. Keep all containers tightly sealed when not in use.

7.3 Specific end use(s)

No additional data

#### **08. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters		
No additional data		
8.2 Exposure controls		
Protective Equipment		
Process Conditions	No additional data	
Engineering Measures	Install sufficient ventilation.	
Respiratory Equipment	Not usually required if sufficient ventilation is provided. In the event of airborne contamination or ventilation failure; use suitable respiratory equipment/protection.	
Hand Protection	Wear chemical- resistant hand gloves, suitable material; Neoprene/nitrile- rubber/rubber. Breakthrough time not determined.	
Eye Protection	Wear safety goggles or full-face shield if risk of splashing.	
Other Protection	No additional data	
Hygiene Measures	Good hygiene practices are always advised, especially when handling chemicals, oils or any other similar type of product.	
Personal Protection	No additional data	

### MATERIAL SAFETY DATA SHEET

Skin Protection	Wear appropriate protective clothing to prevent skin contact.
Environmental Exposure Controls	Do not allow runoff or discharge into the environment or drainage systems.

#### 09. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties		
Appearance	Liquid @ 20°C	
Colour	Brown – Amber	
Odour	Characteristic	
Relative Density	0.926 - 0.933 @ 20°C	
Flash Point (°C)	No additional data	
Refractive Index	No additional data	
Melting Point (°C)	± -20°C	
Boiling Point (°C)	Decomposition takes place before boiling	
Vapour Pressure	@ 20.00°C - very low	
	@ 100.0°C - very low	
Solubility in Water @20°C	Insoluble	
Auto-ignition temperature (°C)	No additional data	
9.2 Other information		
No additional data		

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

10.1	Reactivity
	No additional data
10.2	Chemical stability
	Expected to be stable under recommended conditions.
10.3	Possible hazardous reactions
	Hazardous polymerisation does not occur.
10.4	Conditions to Avoid

### **MATERIAL SAFETY DATA SHEET**

Very fine dispersion in contact with air (possible danger of self-ignition). Keep away from direct sunlight, heat, sparks, flames and other sources of ignition. Avoid exposure to air (oxygen). Used earthed equipment where possible.

#### 10.5 Incompatible materials

Keep away from oxidising agents, strong acids and strong bases.

### 10.6 Hazardous Decomposition Products

Produces a complex mixture of (irritating) fumes during combustion. CO, CO2, Acroleine.

#### **11. TOXOLOGICAL INFORMATION**

11.1 Information on toxicological effects		
Acute Toxicity	LD50 oral > 5.000 mg/kg	
Skin corrosion / irritation	Not a known irritant	
Serious eye damage / irritation	Not a known irritant	
Respiratory or skin sensitisation	Not known to be sensitizing	
Germ Cell Mutagenicity	No additional data	
Carcinogenicity	No additional data	
Reproductive toxicity	No additional data	
STOT-single exposure	No additional data	
STOT-repeated exposure	No additional data	
Aspiration hazard	No additional data	
Photo-toxicity	No additional data	
Other Information	No additional data	

#### **12. ECOLOGICAL INFORMATION**

12.1	Toxicity
	Aquatic toxicity: LC/EC/IC50 > 1.00
12.2	Persistence & degradability
	Readily biodegradable
12.3	Bioaccumulation Potential

## **MATERIAL SAFETY DATA SHEET**

### BCF < 10

12.4	Mobility in soll
	No additional data
12.5	Results of PBT and vPvB Assessment
	Not considered to be persistent, bio accumulative and toxic (PBT) or very persistent and very bio accumulative (vPvB)
12.6	Other adverse effects
	No additional data

#### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Always dispose of this product in accordance with local and national regulations.

#### **14. TRANSPORT INFORMATION**

14.1	UN number	
	UN No. Road	Not Regulated
	UN No. SEA	Not Regulated
	UN No. AIR	Not Regulated
14.2	UN proper shipping name	
	Not applicable	
14.3	Transport hazard class(es)	
	Not applicable	
14.4	Packing group	
	Not applicable	
14.5	Environmental hazards	
	No additional data	
14.6	Special precautions for use	<b>f</b>
	No additional data	
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC code	
	No additional data	n yn fel na hyw yn yn ar ar ar yn
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### MATERIAL SAFETY DATA SHEET

#### **15. REGULATORY INFORMATION**

	No additional data
15.2	Chemical safety assessment
	No additional data

#### 16. OTHER INFORMATION

Hazard Statements in Full	None
Revision Date	25/01/2021
Rev No	7

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### **Product Specification**

PRODUCT	Flaxseed Oil Cold Pressed			
	DATE	10/06/2022 REV		
DESCRIPTION		Linum Usitatissimum Seed Oil is the expressed oil from the dried ripe seed of the Linseed, Linum usitatissimum L, Linaceae Linum Usitatissimum Seed Oil		
CAS NUMBER	8001-26-1	EC NUMBER	232-278-6	
		L	A.	
CHARACTERISTICS				
	APPEARANCE AT ROOM TEMPERATURE Liquid			
	COLOUR	Brown – Amber		
	ODOUR	Characteristic		
	ANA	LYSIS		
	SPECIFIC GRAVITY	0.9260 – 0.9330 @ 20°C		
	REFRACTIVE INDEX	1.4780 – 1.4830 @ 20°C		
	ACID VALUE	≤3.000		
	IODINE VALUE (WIJS)	≥175.0		
	COLOUR (GARDNER)	≤13.00		
	SAPONIFICATION VALUE	188.00 - 195.00		
	UNSAPONIFIABLE MATTER (%)	≤1.500		
	VOLATILE (%)	≤2.000		
	ASH (%)	≤0.150		

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