



CERTIFICATE OF ANALYSIS

Product	Sunflower Lecithin
Batch Number	4368501
Best Before End	August 2022
Origin	The Netherlands

Results of Composite

Physical and chemical analysis

Viscosity at 25degrees C (poises)	71.98
Gardner colour (Solution 10% Moisture,	10
Karl Fischer(%)	0.2
Acid Value (mg KOH/g)	22.4
Peroxide Value (meq O2/kg)	<0.1
Acetone Insoluble(%)	62.7
Hexane Insoluble(%)	<0.1
Toluene Insoluble(%)	<0.1

Microbiological Analysis

Total Plate count (cfu/g)	<10
Yeasts & Moulds (cfu/g)	<10
Total Coliforms (NMP/g)	Negative
E.coli (NMP/g)	Negative
Enterobacteriaceae (cfu/g in25g)	Negative
Salmonellas	Absent in25g



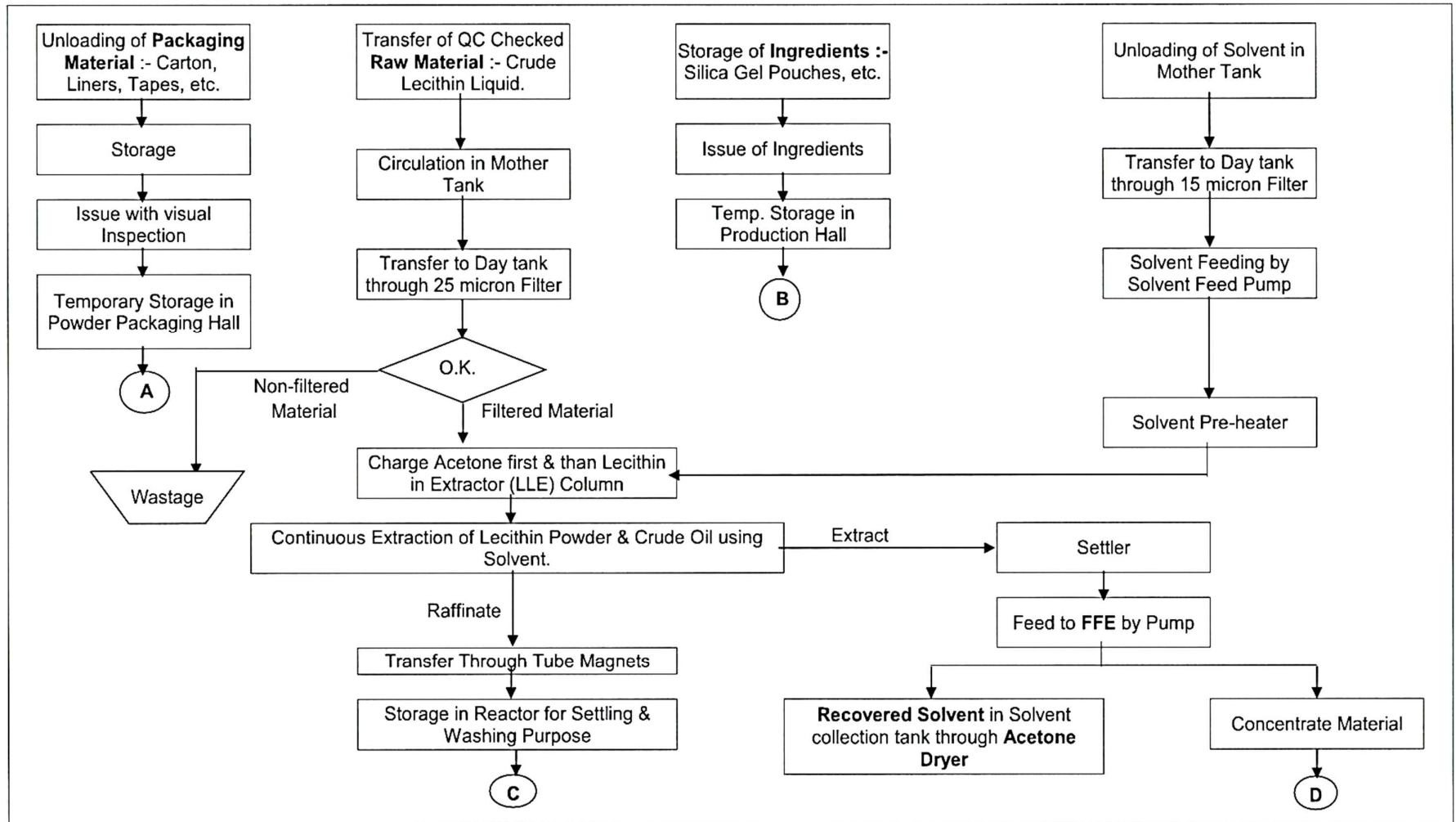
Sunflower Lecithin Liquid

Allergen Statement				
Allergen	As an ingredient		Specify allergen amount (relevant for <u>Gluten</u> and <u>Sulphites</u>) : Gluten above 20 ppm? Sulphites above 10 ppm ?	Specify type of Nut (Almond, Pecan, etc.) and source of Gluten (Wheat, Rye, Barley, Oats)
	Not Present	Present as an ingredient		
Peanuts	*			
Tree nuts (Almond, Brazil nut, Cashew, Chestnut, Hazelnut, Macadamia nut, Pecan, Pine nut, Pistachio, Walnut)	*			
milk	*			
Chicken eggs	*			
Fish	*			
Sea food , Crustacean, Molluscs)	*			
Gluten (Wheat, Rye, Barley, Oats)	*			
Soy	*			
Sesame	*			
Celery	*			
Mustard	*			
Sulphites and sulfur dioxide	*			
Lupine	*			

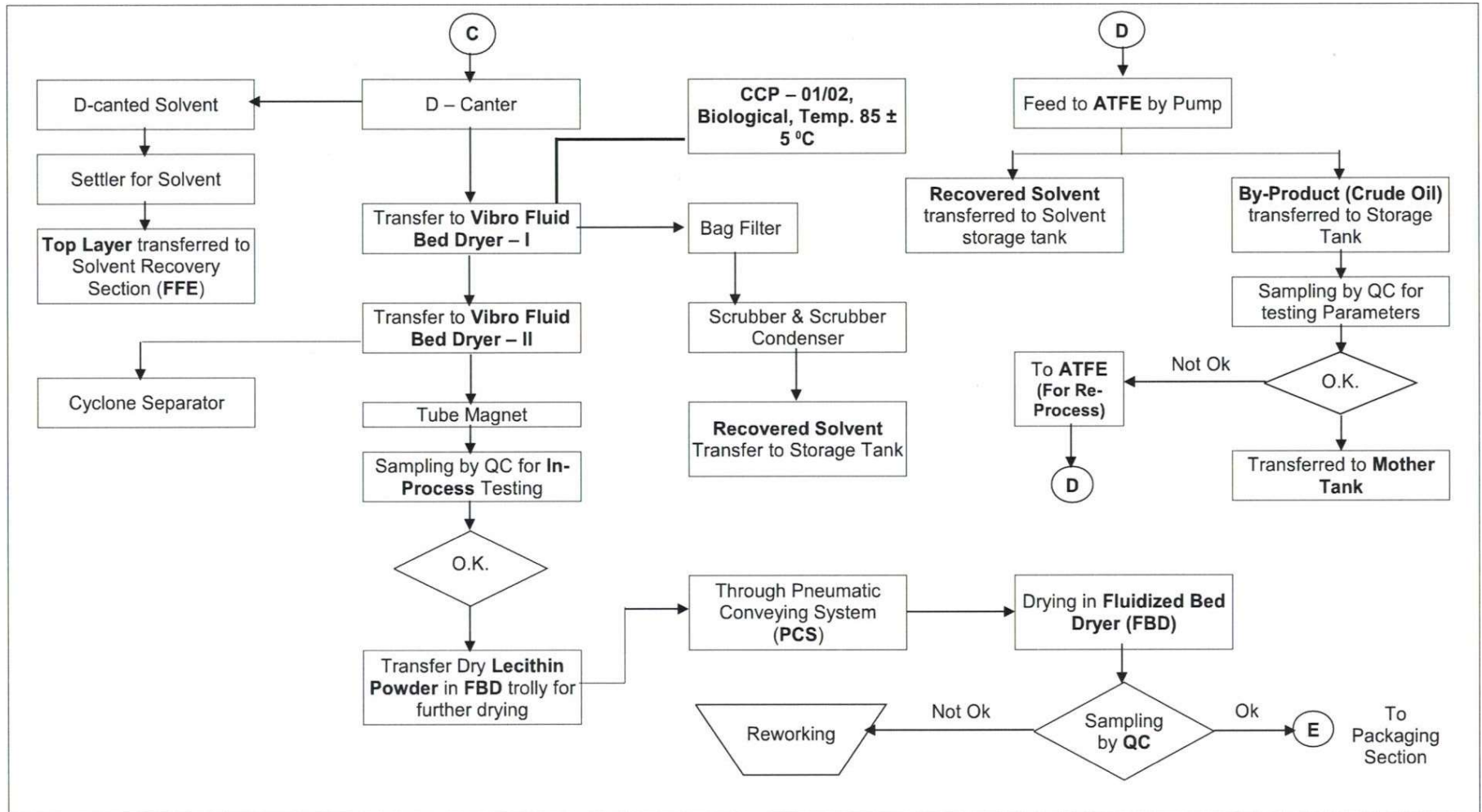
Risk for cross-contamination					
Please fill this section for allergens that are not present in the product as ingredients					
Allergen	Do you use the allergen at the same plant ? Please mark YES/NO	Do you use allergen on the same production line? Please mark YES/NO	In case of the allergen being used on the same line - please specify form of allergen - liquid/powder/particle? (please fill the applicable option)	Specify the allergens present of this group (Type of nut, Source of gluten)	Is there a risk of cross contamination from the allergen in the final product ? Please mark YES/NO
Peanuts		No			
Tree nuts (Almond, Brazil nut, Cashew, Chestnut, Hazelnut, Macadamia nut, Pecan, Pine nut, Pistachio, Walnut)		No			
milk		No			
Chicken eggs		No			
Fish		No			
Sea food , Crustacean, Molluscs)		No			
Gluten (Wheat, Rye, Barley, Oats)		No			
Soy	Yes	No	N/A	Soybean	No
Sesame		No			
Celery		No			
Mustard		No			
Sulphites and sulfur dioxide		No			

Lupine				
Information regarding cleaning procedures				
Please specify which cleaning procedures are taken (wet/dry, CIP, etc.) and frequency of those procedures	Steam cleaning/wet.			
Is there a validation process for the cleaning procedure above? In what way?	Visual inspection for cleanliness and organoleptic inspection, including glass inspection			
Do you conduct laboratory tests to identify allergens present after cleaning? Please mark YES/NO	If any moisture lumps and/or physical particules /turbidity is found then tests may be c			
Does a visual verification performed after cleaning? Does another kind of verification conducted?	Yes and also organoleptic i.e smell.			
What is the frequency of allergenic residues tests on the production line?	There is no risk for cross contamination as it is only one product per line.			
The allergenic residues tests are conducted on - Equipment/Rinse Water/First Product after cleaning?	The product can be tested if necessary for any reference gene.			
Which method of testing do you use?	The testing method varies depending on what DNA would be tested.			
Which allergenic residues do you test?	There is no risk for cross contamination as it is only one product per line.			
Please provide details on all means in place at your plant to prevent Cross-contamination in respect of the above.	All the lines and storage areas are separated. So there is no risk of cross contamination			

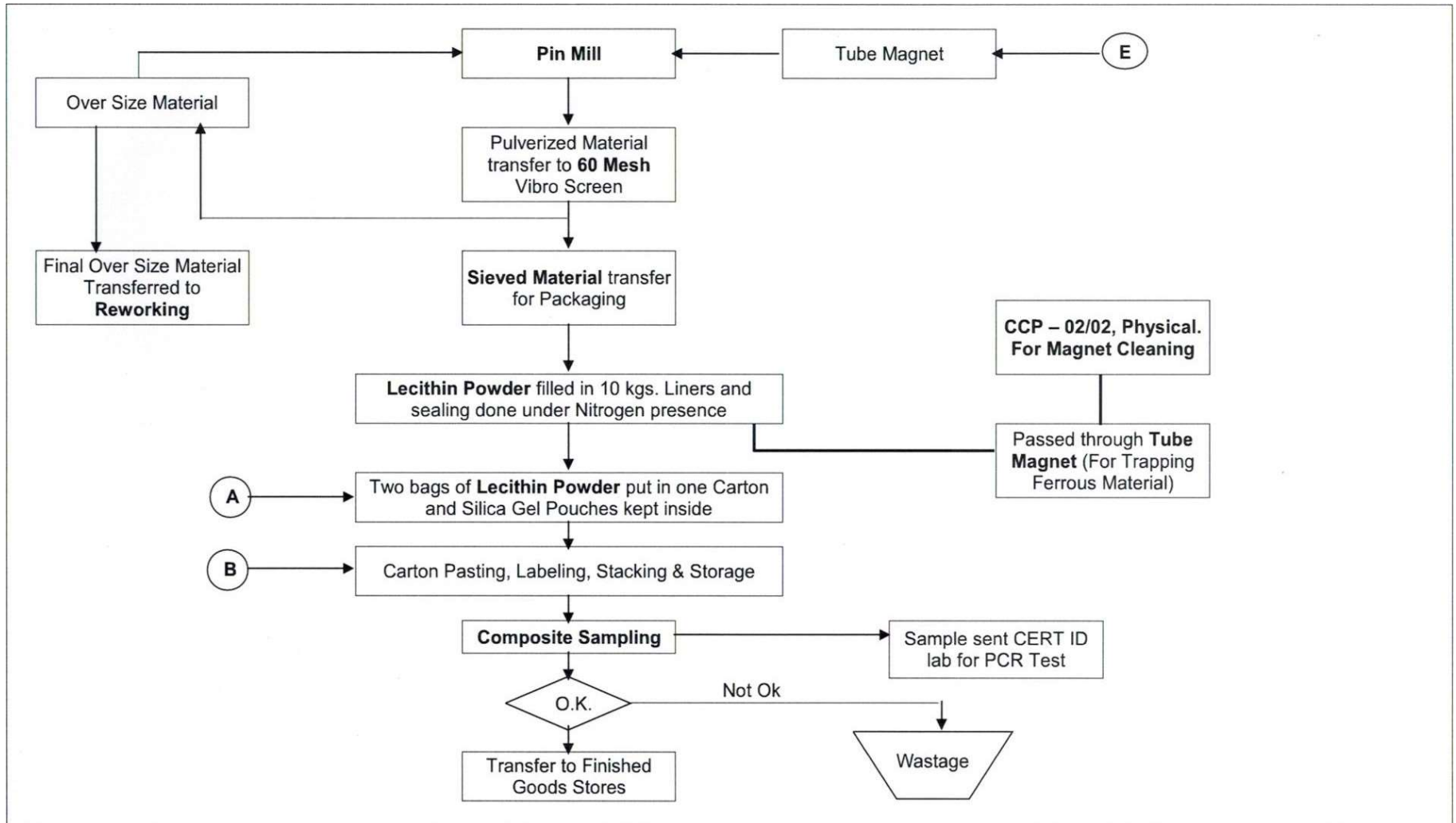
PROCESS FLOW CHART FOR LECITHIN POWDER PLANT



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PROCESS FLOW CHART
FOR LECITHIN POWDER PLANT





GMO Statement

PRODUCT NAME: Sunflower Lecithin

MADAR Corporation Limited can confirm that the above listed product is GMO Free.

06/03/2019



Material Safety Data Sheet

1. PRODUCT/ SUPPLIER IDENTITY

Product Identifier

PRODUCT NAME**Sunflower Lecithin Liquid**

PRODUCT NO.

RMSUNFLECI

Details of supplier of the material safety data sheet

SUPPLIER

MADAR Corporation Limited
19-20 Sandleheath Industrial Estate
Fordingbridge
Hampshire SP6 1PA

TELEPHONE NUUMBER:

01425 655555

APPROVED SELLERS:

Mystic Moments, New Directions, World of Moulds

2. HAZARDOUS IDENTIFICATION

No special hazards have to be mentioned.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Substance	EINECS/ ELINCS	CAS	Range (%)	Symbol/ R phr.
Lecithin	232-307-2	8002-43-5	100	

4. FIRST AID MEASURES

GENERAL INFORMATION:

Not applicable.

INHALATION:

Not applicable.

SKIN CONTACT:

Wash with soap and water for 15 minutes

EYE CONTACT:

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

INGESTION:

None.

ADVICE TO DOCTOR:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

Foam, Dry powder. Water spray jet. Carbon dioxide.

EXTINGUISHING MEDIA THAT MUST NOT BE USED:

Full water jet

SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE OR PREPARATION ITSELF OR

COMBUSTION PRODUCTS:

Risk of formation of toxic pyrolysis products,

SPECIAL PROTECTIVE EQUIPMENT

FOR FIREFIGHTERS:

Use self-contained breathing apparatus

ADDITIONAL INFORMATION: Fire residues and contaminated firefighting water must be disposed of in accordance with local regulations,

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: High risk of slipping due to leakage/ spillage of product.
Do not discharge into the drains/ surface waters /groundwater. Prevent spread over a wide area (e.g, by containment or oil barriers).

ENVIRONMENTAL PRECAUTIONS: Do not discharge into the drains/ surface waters /groundwater. Prevent spread over a wide area (e.g, by containment or oil barriers).

METHODS FOR CLEANING UP/ TAKING UP: Pick up with absorbent material (e.g, sand, sawdust, general-purpose binder).
Dispose of absorbed material in accordance with the regulations. Take up

7. HANDLING & STORAGE

ADVICE ON SAFE HANDLING: No special measures necessary if used correctly.

ADVICE ON PROTECTION AGAINST FIRE & EXPLOSION: No special measures necessary.

REQUIREMENTS FOR STORAGE ROOMS AND VESSELS: Keep only in original container.

ADVICE ON STORAGE COMPATIBILITY: None

FURTHER INFORMATION ON STORAGE CONDITIONS: Keep container tightly closed. Store in a dry place. Recommended storage temperature: 15-30°C.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

ADDITIONAL ADVICE ON SYSTEM DESIGN: Not applicable.

INGREDIENTS WITH OCCUPATIONAL EXPOSURE LIMITS TO BE MONITORED: Not applicable.

RESPIRATORY PROTECTION: Not applicable.

HAND PROTECTION: Not applicable.

EYE PROTECTION: Not applicable.

SKIN PROTECTION: Not applicable.

GENERAL PROTECTIVE MEASURES: Avoid contact with eyes.

HYGIENE MEASURES: Wash hands before breaks and after work. Use barrier skin cream.

DELIMITATION AND MONITORING OF THE ENVIRONMENTAL EXPOSITION: Not applicable.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Viscous liquid

COLOUR: Brown

ODOUR: Bland, bean or nutty

PH VALUE: Not determined

PH VALUE 1%: Not determined

BOILING POINT (°C): Not determined

FLASH POINT (°C): >200

FLAMMABILITY (°C): Not determined

LOWER EXPLOSION LIMIT: Not applicable

UPPER EXPLOSION LIMIT: Not applicable

COMBUSTIBLE PROPERTIES: No

VAPOUR PRESSURE (KpA): Not applicable

DENSITY (g/ml): 1.04

BULK DENSITY (kg/m³): Not applicable

SOLUBILITY IN WATER: Immiscible

PARTITION COEFFICIENT: N-
OCTANOL/ WATER: Not determined
VISCOSITY: Max 12,000 mPa.s at 25°C
RELATIVE VAPOUR DENSITY
DETERMINED IN AIR: Not applicable
EVAPORATION SPEED: Not applicable
MELTING POINT (°C): Not determined
AUTOIGNITION TEMPERATURE (°C): ca. 400°C
DECOMPOSITION TEMPERATURE (°C): Not determined

10. STABILITY & REACTIVITY

HAZARDOUS REACTIONS: No hazardous reactions known.
HAZARDOUS DECOMPOSITION
PRODUCTS: No hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY OECD 401: Not determined.
EXPERIENCES MADE IN PRACTICE: None.
GENERAL REMARKS: No toxicological data available. No classification on the basis of the calculation procedure of the preparation directive.

12. ECOLOGICAL INFORMATION

AOX-ADVICE: No dangerous componenets.
74/464/EC: Not applicable.
GERNERAL INFORMATION: Ecological data not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL/ PRODUCT: For recycling, contact manufacturer. Disposal in an incineration plant in accordance with the regulations of the local authorities.
WASTE NO. (RECOMMENDED): 70699
DISPOSAL/ CONTAMINATED
PACKAGING: Untcontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.

14. TRANSPORT REGULATIONS

CLASSIFICATION ACCORDING TO ADR:

DECLARATION: No dangerous goods
LABELLING
FACTOR, ADR 1.1.3.6
LQ, ADR 3.4.6
HAZARD-NO
LABELLING
VAPOUR PRESSURE (kPa)

CLASSIFICATION ACCORDING TO ADR:

DECLARATION: Not classified as dangerous goods
LABELLING:
LQ, (l/kg):
EmS:

CLASSIFICATION ACCORDING TO ADR:

DECLARATION: Not classified as dangerous goods
LABELLING:
LABEL:

15. REGULATORY INFORMATION

LABELLING:	The product does not require a hazard warning label in accordance with EC directives.
HAZARD SYMBOLS:	
SPECIAL LABELLING FOR CERTAIN PREPARATIONS:	Not applicable.
SOURCES OF DOCUMENTATION:	EEC: 911155 (2001/58); 671548 (2004/173), 29. ATP; 1999145 (2001/180); 911689 (2001/118); 89/542: 1999113 Transport information: ADR (2005); IMDG-Code (32.Amdt.); IATA-DGR
NATIONAL REGULATIONS:	Not determined.

16. OTHER INFORMATION

INFORMATION ON INGREDIENTS - POSI	Not applicable.
OBSERVE EMPLOYMENT RESTRICTION	Not applicable.
VOC, 1999/13/EC:	Not applicable.
CUSTOMS TARIFF	Not determined.
UBA- REGISTRATION	Not applicable.
648/2004/EC	Not applicable.
MODIFIED POSITION:	None.

DISCLAIMER

The information given on this material health and safety sheet is not a warranty as to the performance or suitability of the product.

The information must be regarded only as a description of the health, safety and environmental requirements for that product. The information contained herein is true and accurate to the best of our knowledge and belief, but does not claim to be all inclusive.

Since the conditions of use are out of our control, New Directions Europe Limited shall not be held liable for any damage resulting from handling or from contact with the product. It is the responsibility of the user to take all necessary measures to comply legal with requirements and local regulations.

Date 29/02/2016



SUNFLOWER LECITHIN LIQUID

DESCRIPTION: Pure Sunflower Lecithin with high concentration of phospholipids in a free flowing liquid form derived from Sunflower Seeds, and is allergen-free.

APPLICATION: Made from Sunflower Seeds our lecithin provides a healthy and important culinary ingredient. The benefits of lecithin are used throughout several industries from food to medical applications. An invaluable emulsifier, stabiliser and preservative.

SPECIFICATIONS: **PHYSICAL & CHEMICAL PARAMETERS**

Description	Viscous Liquid
Appearance	Brown
Taste/odour	Typical Sunflower

Phosphatides (as acetone insoluble %)	Min 60
Moisture (%)	Max. 1.0
Acid Value (mg KOH/g)	Max. 35
Peroxide Value (meg/Kg)	Max. 6
Toluene Insoluble (%)	Max. 0.3
Gardner Colour (10% sol.)	Min 11
Viscosity (at 25 Deg Cen)	Max 120 Poises
Heavy Metals (Lead & Arsenic)	Below Detection Level
Hexane Insoluble (%)	Max 0.3

MICROBIOLOGICAL CONTROL

Total Plate Count	Max. 3000/g
Enterobacteriaceae	Negative in 1 cfu/g
E-coli	Negative in 1 cfu/g
Yeast & Moulds	Max. 100/g
Salmonellae	Absent in 25g

REGULATORY STATUS:

Sunflower lecithin conforms to the Directive EU Directive 231/2012 (No .E322). Emulsifier Sunflower Lecithin.

SHELF LIFE:

18 months from the date of manufacture if retained in original packing away from direct sunlight and air.

Store at 16-32 °C / 60-90 °F.

Storage below 16 °C/60 °C can cause separation.



Vegetarian and Vegan Suitability

TO WHOM IT MAY CONCERN

Re: Suitability for Vegetarians and Vegans

Product: **Sunflower** Lecithin

Dear Sir/Madam,

We hereby confirm our sunflower lecithin liquid is suitable for vegetarians and vegans.

If you have any queries please contact our quality department.

As supplied by our supplier.