



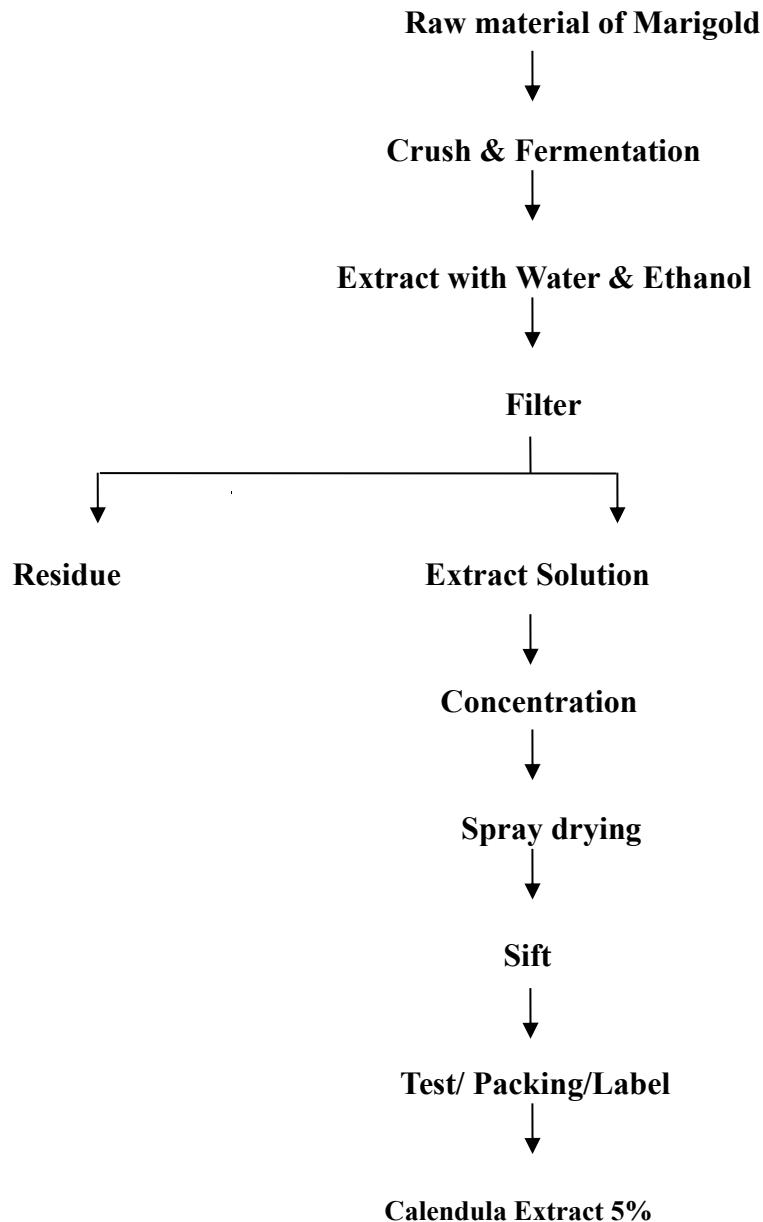
Certificate of Analysis

Product information		Batch information	
Product name	Calendula Extract	Batch no.	4376701
Botanical name	Calendula Officinalis	Best Before End	October 2022
Plant part	Flower		
Country of origin	P.R.CHINA		

Analysis item	Specification	Result	Analysis test method
Assay	5% Lutein (Xanthophyll)	6.04%	UV-VIS
Organoleptic properties			
Appearance ¹	Fine Orange powder	Conform to specification	Visual
Taste	Typical to botanical	Conform to specification	Gustatory
Odor	Typical to botanical	Conform to specification	Olfactory
Physical properties			
Sieve analysis	90% pass 80 mesh	Conform to specification	Mesh screen or equivalent
Moisture content	≤5%	3.47%	IR balance or equivalent
Ash	≤5%	1.28%	2g/525°C/5hrs or equivalent
Heavy metals²			
Arsenic (As)	≤ 1 ppm	Conform to specification	AA or equivalent
Cadmium (Cd)	≤ 1 ppm	Conform to specification	AA or equivalent
Lead (Pb)	≤ 3 ppm	Conform to specification	AA or equivalent
Mercury (Hg)	≤ 0.1 ppm	Conform to specification	AA or equivalent
Total heavy metals	≤ 10 ppm	Conform to specification	Colorimetry or equivalent
Microbiology			
Total plate count	≤10000cfu/g	Conform to specification	AOAC or equivalent
Yeasts & Molds	≤1000cfu/g	Conform to specification	AOAC or equivalent
Salmonella	Absent/10g	Conform to specification	AOAC or equivalent
E.Coli	Absent/1g	Conform to specification	AOAC or equivalent
Sterilization method	High Temperature & High Pressure Short time (5" - 10")		
Identification	Positive	Conform to specification	TLC
Additional information			
<p>Re-test date 24 months from production date in original packaging and qualified storage conditions.</p> <p>Storage Store product in tightly sealed containers in dry and dark environment at room temperature.</p> <p>Avoid exposure to air pollution, heat, sunshine and moisture. Reclose containers tightly after use.</p> <p>1 This is a natural product; color variations may appear between extraction batches due to crop, harvest and seasonal fluctuations.</p> <p>2 Individual and total heavy metals are not being tested for each batch. Random analyses are being regularly performed minimum once a year.</p> <p>This datasheet is in compliance with USA and EU food regulations.</p> <p>Before using, read, understand and comply with the information and precautions in the technical data sheets, material safety data sheets, corporate label and other product literature. The information presented herein, while not guaranteed, was prepared and tested by technical personnel and, to the best of our knowledge and belief, is true and accurate as of the date hereof. No warranty, representation or guarantee, express or implied, can be made regarding accuracy, performance, stability, reliability or use. This information is not intended to be all-inclusive, because the manner and conditions of use, handling, storage and other factors may involve other or additional safety or performance considerations. The user is responsible for determining the suitability of any material for a specific purpose and for adopting such safety precautions as may be required. Refer to material safety data sheets for specific and handling instructions. Product might be an irritant. MADAR Corporation does not warrant the results to be obtained in using any material, and disclaims all liability with respect to the use, handling or further processing of any such material. No suggestion for use is intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patent, trademark or copyright or to violate any federal, state or local law or regulation. This document is the property of MADAR Corporation. Document must be returned by receiver upon request. The information contained herein is confidential and may not be copied, shown, or otherwise disclosed, directly or indirectly, to any person not subject to a MADAR Corporation supply contract or confidentiality and nondisclosure agreement without the express, written consent of MADAR Corporation</p>			



Product Flow Chart of Calendula Officinalis Extract





GMO Statement

PRODUCT NAME: CALENDULA OFFICINALIS EXTRACT

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

28/06/2019



Material Safety Data Sheet

1. IDENTIFICATION OF SUBSTANCE/COMPANY

Product Name: **Calendula Officinalis**
Company Name: **Extract**
Madar Corporation
19 Sandleheath Industrial Estate
Fordingbridge
Telephone Number: Hampshire SP6 1PA
Fax Number: 01425 655555
01425 658182

2. HAZARDS IDENTIFICATION:

No hazards identified under regulation 67/548/EEC.

Reach Registration: Exempt as per Annex VI and V according to EU Regulation 1907/2006

This product does not belong to any list of substances supposedly hazardous to human or animal health according to EU Regulation 1272/2008 and further amendments, not to those having recognised exposure limits. Care should be taken when handling hot oil as it may constitute a burn hazard. Spills constitute a slippage hazard.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Inci Name: **Calendula Officinalis Extract**
Chemical Composition: Calendula Officinalis Extract is a extraction using the outer rind of the Calendula Officinalis flower
CAS No: 127-40-2
EINECS No: 204-840-0
Function: Anti-oxidant

4. FIRST-AID MEASURES

Inhalation: Not expected, but in case of need remove from exposure site to fresh air. Keep at rest. Seek medical advice.
Skin Contact: No measures, being a non-toxic product, in case any symptoms appear, remove contaminated clothes. Cover wash with water and soap; cover the irritated skin with emollient – may need to seek medical advice.
Eye Contact: Check for and remove lenses. Flush with water for at least 15 minutes. Contact a doctor if symptoms persist.
Ingestion: Generally, first aid is not necessary. Seek medical attention in case of any adverse effects.
Other: When assessing action take Risk & Safety Phrases into account (Section 15).

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use CO₂, Dry Powder or Foam type Extinguishers.
Spraying Recommended: Extinguishing media to base of flames. Do not use direct water jet on burning material.
Special Measures: Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke. Wear positive pressure self-contained breathing apparatus & protective clothing.
Extinguishing Procedures: Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions:	No special precautions required.
Environment Precautions:	No special precautions required.
Cleaning Up Methods:	Remove all potential ignition sources. Contain spilled material with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Observe state, federal & local disposal regulations.

7. HANDLING AND STORAGE

Precautions in Handling:	Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene, and do not eat, drink or smoke whilst handling.
Storage Conditions:	In well filled and closed container protected from light at a temperature not exceeding 25°C.
Fire Protection:	Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

Respiratory Protection:	No special measures under normal conditions.
Ventilation:	No special measures under normal conditions.
Hand Protection:	No special measures under normal conditions.
Eye Protection:	Use safety glasses.
Work/ Hygiene Practices:	Wash hands with soap and water after handling.

9. PHYSICAL DATA AND CHEMICAL PROPERTIES:

Appearance:	Fine powder
Colour:	Redish yellow
Odour:	Faint vegetable odor
Oxidizing Properties:	Avoid exposure to air.
Flash Point °C:	> 600
Flammability:	Avoid open flame.
Melting Point/ Range °C:	30 - 36
Specific Gravity @ 50°C:	0.89

10. STABILITY AND REACTIVITY:

Reactivity:	It presents no significant reactivity hazards, by itself or in contact with water. Avoid contact with strong alkali, acid or oxidising agents.
Decomposition:	Liable to cause smoke and acrid fumes during combustion; carbon monoxide, carbon dioxide and non-identified organic compounds may be formed.

11. TOXICOLOGICAL INFORMATION:

Vegetable powder of natural origin. Non-toxic product.

12. ECOLOGICAL INFORMATION:

Biodegradability:	> 90% (OECD) This product is unlikely to accumulate in the environment and environmental problems under normal use conditions are not expected
Precautions:	Prevent surface contamination of soil, ground and surface water.

13. DISPOSAL CONSIDERATIONS:

When possible recover spilled product. When product must be discarded, do so into an authorised dump or recycling service station. Act in accordance with local and national regulations

14. TRANSPORT INFORMATION

Road (ADR/ RID): N/a
Air (IATA): N/a
Sea (IMDG): N/a
CHIP: See section 15
NDPA Ratings: Health: 0, Flammability: 1, Reactivity: 0, Personal protection: A

15. REGULATORY INFORMATION:

Hazards: N/a
Symbols: N/a
Risk Phrases: N/a
Safety Phrases: S25 Avoid contact with eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical attention
S 39 Wear eye protection

16. OTHER INFORMATION

Cosmetics Directive 7th Amendment: Not restricted

PACKAGING:

Type	Suitability
Glass	Yes
Lacquered lined steel/ tin	Yes
Aluminium	Yes
HPPE	Yes
F/HDPE	Yes
Other Plastic	Yes

Revision date 24-Sep-14

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.



SPECIFICATION SHEET

Product and Batch Information			
Product Name:	Calendula Officinalis Extract	Country of Origin:	P.R. China
Botanic Name:	Calendula officinalis	Type of extraction:	Water/ Grain Alcohol
Plant Part:	Flower (Dried, 100% Natural)	Active Ingredient:	Lutein
Analysis Item	Specification	Result	Test Method
Active Ingredieints			
Assay	NLT 5% Lutein (Xanthophyll)		UV-VIS
Physical Control			
Identification	Positive		TLC
Appearance	Fine powder		Visual
Color	Reddish Yellow		Visual
Odor	Characteristic		Organoleptic
Taste	Characteristic		Organoleptic
Sieve Analysis	100% pass 80 mesh		80 Mesh Screen
Loss on Drying	5% Max		5g / 105C /5hrs
Solubility	Partly soluble in alcoholic solution		Visual
Ash	25% Max		2g / 525C / 5hrs
Chemical Control			
Sulphate	0.5% Max		2g / 525C / 5hrs
Insolubles In Ethanol	10ppm Max		
Ethanol Resides	0.2% Max		
Arsenic (As)	NMT 1ppm		Atomic Absorption
Cadmium(Cd)	NMT 1ppm		Atomic Absorption
Lead (Pb)	NMT 1ppm		Atomic Absorption
Chlorate (Cl)	NMT 1ppm		Atomic Absorption
Phosphate Organics	NMT 1ppm		Gas Chromatography
Heavy Metals	10ppm Max		Atomic Absorption
Pesticides Residues	NMT 1ppm		Gas Chromatography
Microbiological Control			
Total Plate Count	10000cfu/g Max		
P.aeruginosa	Absent		
S. aureus	Absent		
Salmonella	Absent		
Yeast & Mold	50cfu/g Max		
E.Coli	Negative		
Staphylococcus	Negative		
Aflatoxins	NMT 0.2ppb		HPLC
Salmonella	Negative		
Packing and Storage			
Packing	Pack in paper-drums and two plastic-bags inside.		
Storage	Store in a well-closed container away from moisture.		
Shelf Life	3 years if sealed and store away from direct sun light.		



Vegetarian & Vegan Suitability Statement

PRODUCT NAME: CALENDULA EXTRACT

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.