



NEW DIRECTIONS AROMATICS

MATERIAL SAFETY DATA SHEET

SECTION: 1.1 PRODUCT IDENTIFICATION

Product Name: Evening Primrose Refined Carrier Oil
Botanical Name: *Oenothera biennis*
Synonyms: *O. chicogoensis*, *O. muricata*, *O. suaveolens*; *Onagra biennis*
INCI Name: Oenothera biennis (evening primrose) oil
CAS #: 65546-85-2
Country of Origin: China

SECTION: 1.2 COMPANY IDENTIFICATION

Company: New Directions Aromatics Inc.
Address: 6781-Columbus Road, Mississauga. L5T 2G9 Canada
Telephone No: 905-362-1915
FAX: 905-362-1926

24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC

SECTION: 2. COMPOSITION / INFORMATION INGREDIENTS

Constituents: Palmitic, palmitoleic, margaric, margaroleic, stearic, oleic, linoleic, a-linolenic, g-linolenic, arachidic, eicosanic, behenic and erucic acids

Composition	Total Saturated:	6 – 13.4 %	Stearic Acid:	1 – 2 %
	Total Monounsaturated:	5 – 11.1 %	Oleic Acid:	5 – 10 %
	Total Polyunsaturated:	79 – 88 %	Linoleic Acid:	70 – 75 %
	Palmitic Acid:	5 – 10 %	γ-Linolenic Acid:	9 – 11 %

SECTION: 3. HAZARDS IDENTIFICATION

N/A

Medical Information: N/A

SECTION: 4. FIRST AID MEASURES

Eye Contact: Contact with eyes can produce burning sensation. Irrigate with water immediately, continue flushing eyes with water for 15 minutes. Seek medical attention if irritation persists.

Inhalation: Remove to fresh air.

Ingestion: Rinse mouth; dilute with milk or water and consult a physician immediately. Do not induce vomiting. Never-give anything by mouth if victim is unconscious, is rapidly-losing or is Convulsing.

Skin Contact: Skin contact can produce irritation, or itching of the skin. Remove contaminated clothing Wash with soap and plenty of water. Seek medical attention if irritation persists.

SECTION: 5. FIRE FIGHTING MEASURES

Flammable Limits: Flash Point: >100 °C

Extinguishing media: Carbon Dioxide, dry chemical or foam. Closed containers may build up pressure at elevated temperature

Special Procedures: Determine the need to evacuate or isolate the area according to your local emergency plan.

Unusual Firefighting Hazards: None identified.



NEW DIRECTIONS

A R O M A T I C S

MATERIAL SAFETY DATA SHEET

Protective Equipment: Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving oils or chemicals.

Combustion Product: Carbon Monoxide, Carbon Dioxide

SECTION: 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use of self-contained breathing apparatus is recommended for any major chemical spill. Refer also to section 8.

Safety Precautions: Eliminate all ignition sources. Ventilate area. Determine the need to Evacuate or isolate the area according to your local emergency plan.

Environmental Precautions: Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required.

Methods For Cleaning Up: Contain and collect with inert absorbent material and place in suitable container for disposal. Comply with all federal, state, and local regulation. Wipe small spills with cloth. Clean with hot water and detergent.

SECTION: 7. HANDLING AND STORAGE

Handling: Avoid inhalation and contact with skin and eyes. Good personal hygiene practices should be used. Wash after any contact, before breaks and meals, and at the end of the work period.

Storage: Contaminated clothing and shoes should be cleaned before re-use. Containers should be kept closed in order to minimize contamination. Store in a cool, dry, well ventilated place protected from light. Keep away from extreme heat and from freezing conditions and away from all sources of ignition

SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eyes Protection: The use of safety glasses is recommended. If a material is to be handled in a manner where splashing may occur, the use of splash goggles or face shield is recommended

Respiratory Protection: In well- ventilated areas, respiratory protection is not normally required. In confined, poorly ventilated areas the use of "NIOSH" approved respiratory protection normally required (use only if trained in proper use and with acceptable oxygen level).

Protective Gloves: Using chemical resistant gloves is recommended.

Protective Clothing: Using chemical resistant clothing is recommended.

Protective Equipment: An eyewash fountain and / or safety shower should be available in the work area. Acceptable industrial hygiene practices should be maintained.

SECTION: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow to golden yellow liquid

Odor: Characteristic odor

Solubility: Soluble in oils. Insoluble in water.

Relative Density: 0.895 – 0.930 @°C



NEW DIRECTIONS

A R O M A T I C S

MATERIAL SAFETY DATA SHEET

Refractive Index:	1.477 – 1.479 @°C
Free Fatty Acids:	<2 %
% Unsaponifiables:	<2 %
Saponification Value:	185 – 195
Extraction Method:	Cold-pressed of the seeds/kernels.

SECTION: 10. STABILITY AND REACTIVITY

Stability:	Chemically stable. This material presents no significant reactivity hazard.
Conditions to Avoid:	Avoid sparks, flame and excessive heat.
Materials to Avoid:	Strong oxidizing agents.
Flammability:	Combustible liquid.
Hazardous Polymerization:	Will not occur.
Hazardous Combustion or Decomposition Products:	None known. When heated to decomposition produces carbon dioxide and monoxide smoke.

SECTION: 11. TOXICOLOGICAL INFORMATION

Inhalation:	Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.
Skin Contact:	Repeated or prolonged contact can cause redness, irritation and scaling of skin (Dermatitis). Adverse skin effects should be prevented by normal care and personal hygiene
Eye Contact:	May irritate eyes.
Ingestion:	Low order toxicity causing irritation of the stomach and intestines which results in nausea and vomiting.
Medical Conditions Aggravated by Exposure:	May aggravate dermatitis, psoriasis and other skin conditions.
Chronic Toxicity:	May cause allergic reactions on skin
Carcinogenicity Data:	None of the components of this material are listed as a carcinogen.
Reproductive Toxicity:	No adverse effects on reproduction are known.
Acute Toxicity Values:	No data is currently available.

SECTION: 12. ECOLOGICAL INFORMATION

Very toxic to aquatic organism may cause long-term adverse effects in the aquatic environment.
Avoid any pollution of ground, surface or underground water.

SECTION: 13. DISPOSAL CONSIDERATION

Incineration or sanitary landfill in accordance with local, provincial and federal regulations. Check with
disposal expert to insure compliance

SECTION: 14. TRANSPORT INFORMATION

US DOT Shipping Description:	Check appropriate authority
IATA Shipping (Air):	Check appropriate authority
IMDG Shipping Description:	Check appropriate authority



NEW DIRECTIONS AROMATICS

MATERIAL SAFETY DATA SHEET

SECTION: 15. REGULATORY INFORMATION

WHMIS (Canada):	Not Available
HMIS (USA):	Health Hazard – Fire Hazard – Reactivity –
SARA 302/ SARA 313:	None
California Proposition 65:	This product does not contain chemical listed per the Safe Drinking Water and Enforcement Act of 1986.

SECTION: 16. OTHER INFORMATION

Revision Date: December 2, 2011

IRS

SECTION: 17. DISCLAIMER

The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. The information contained herein is true and to the best of New Directions Aromatics knowledge. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any Laws or Regulation. Final determination of the suitability of the material is the sole responsibility of the user. Customers should purchase products from New Directions Aromatics Inc. with the clear understanding that all products must be used at the customers own discretion and only after referencing Material Safety Data Sheets (MSDS) and all other relevant technical information specific to the product. New Directions Aromatics Inc. shall not be held responsible for any damages to property or for any adverse physical effects (including injury or bodily harm) caused by insufficient knowledge or the improper use of a product. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of The products, including intellectual property rights of third parties. As with any manufacturing process, New Directions Aromatics strongly recommends small lab scale testing for evaluation purposes prior to full commercial manufacturing. The information on the New Directions Aromatics Inc. website is obtained from current and reliable sources but makes no representation as to its comprehensiveness or accuracy. Nothing contained herein should be considered as a recommendation by New Directions Aromatics Inc. as to the fitness for any use. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.



NEW DIRECTIONS AROMATICS

CERTIFICATE OF ANALYSIS

Product: Evening Primrose Refined Carrier Oil
Lot No.: 15008-A08
Best Before: February 2013

<u>Property</u>	<u>Specification</u>	<u>Result</u>
Appearance:	Pale yellow to golden yellow liquid	Complies
Odor:	Characteristic odor	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Relative Density:	0.895 – 0.930 @°C	Complies
Refractive Index:	1.477 – 1.479 @°C	Complies
Free Fatty Acids:	<2 %	Complies
% Unsaponifiables:	<2 %	Complies
Saponification Value:	185 – 195	Complies
Iodine Value:	140 – 160	Complies
Peroxide Value:	<2 %	Complies

DISCLAIMER:

The information contained in this Certificate of Analysis is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. New Directions Aromatics Inc. expressly disclaims responsibility as to the ordinary or otherwise use(s). Furthermore, nothing contained herein should be considered as a recommendation by New Directions Aromatics Inc. as to the fitness for any use. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties.

New Directions Aromatics Inc.

6781-Columbus Road, Mississauga, L5T 2G9 Canada

Tel: (905) 362-1915 Fax: (905) 362-1926

Page 5 of 5

www.newdirectionsaromatics.com