

## MATERIAL SAFETY DATA SHEET

<b>NFPA</b>	<b>HMIS</b>	<b>Personal Protective Equipment</b>						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	1	Fire Hazard	1	Reactivity	0	
Health Hazard	1							
Fire Hazard	1							
Reactivity	0							
See Section 8.								

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product code:</b>	L3059
<b>Product Name:</b>	LINOLEIC ACID METHYL ESTER
<b>Chemical Name:</b>	No information available
<b>Synonyms:</b>	Methyl Linoleate
<b>Recommended use:</b>	No information available.
<b>CAS #:</b>	112-63-0
<b>Formula:</b>	C19-H34-O2
<b>RTECS #</b>	Not available
<b>CI#:</b>	Not available
<b>Supplier:</b>	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
<b>Emergency Telephone Number:</b>	CHEMTREC: 1-800-424-9300
<b>Contact Person:</b>	Martin LaBenz (West Coast)
<b>Contact Person:</b>	Chris Terpak (East Coast)

### 2. HAZARDS IDENTIFICATION

<b>EMERGENCY OVERVIEW</b>			
May cause skin and eye irritation. May cause irritation of respiratory tract.			
<b>Odor:</b> No information available	<b>Physical state:</b> Liquid.	<b>Appearance:</b> No information available	<b>Color:</b> Clear. Colorless.

**OSHA Regulatory Status**      This material is not considered hazardous by the OSHA Hazard Communication Standard (29 1910.1200)

## 2. HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS

**Principal Routes of Exposure:**

Skin. Ingestion. Eyes.

**Acute Potential Health Effects:****Skin Contact:**

May cause skin irritation.

**Eye Contact:**

Contact with eyes may cause irritation.

**Inhalation:**

May cause irritation of respiratory tract.

**Ingestion:**

No information available.

**Chronic Potential Health Effects:****Component**

Linoleic Acid Methyl Ester  
112-63-0 (100)

**Carcinogen Status:**

No information available

**Target Organs:** No information available.

**Teratogenic Effects:** No information available

**Mutagenic Effects:** No information available

**Aggravated Medical Conditions:** No information available

See Section 11 for additional Toxicological Information

### POTENTIAL ENVIRONMENTAL EFFECTS

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Linoleic Acid Methyl Ester	112-63-0	100

## 4. FIRST AID MEASURES

**General Advice:** Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops.

**Eye Contact:** Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Notes to Physician:** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### Flammable Properties

<b>Flashpoint (°C/°F):</b>	113 °C/235.4 °F 200 °C/392 °F
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### Tested according to:

Closed cup  
Open cup

<b>Lower Explosion Limit (%):</b>	No information available
<b>Upper Explosion Limit (%):</b>	No information available

<b>Autoignition Temperature (°C/°F):</b>	Not applicable.
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**Suitable Extinguishing Media:** Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray mist or foam. Alcohol-resistant foam.

**Unsuitable Extinguishing Media:** No information available.

**Hazardous Combustion Products:** Carbon monoxide; Carbon dioxide

**Specific hazards:** May be combustible at high temperatures. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Specific Methods:** No information available.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

### Environmental Precautions:

Do not let product enter drains.

### Methods for Cleaning Up:

Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Handling

**Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. Keep away from incompatible materials.

**Safe Handling Advice:**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

### Storage

**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Protect from light. Sensitive to light. Store in light-resistant containers. Air sensitive. Deep freeze. Store at -20 °C. Store away from incompatible materials.

**Incompatible Products:**

Oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

**Personal Protective Equipment**

**Eye protection:** Safety glasses with side-shields. Safety glasses.

**Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.

**Respiratory protection:** Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

**National occupational exposure limits****United States**

U.S Occupational Exposure Limits: Not determined

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Linoleic Acid Methyl Ester - 112-63-0	None	None	None	None

**Canada**

Canada Occupational Exposure Limits: Not determined

Components	Alberta	British Columbia	Ontario	Quebec
Linoleic Acid Methyl Ester 112-63-0	None	None	None	None

### Australia and Mexico

Occupational Exposure Limits for Australia and Mexico: Not determined

Components	Australia	Mexico
Linoleic Acid Methyl Ester 112-63-0	None	None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Liquid.

**Appearance:**

No information available

**Color:**

Clear. Colorless.

**Odor:**

No information available

**Taste**

No information available

**Molecular/Formula weight:**

294.48

**Flash point (°C):**

113

**Lower Explosion Limit (%):**

Not applicable

**Upper Explosion Limit (%):**

Not applicable

**Autoignition Temperature (°C/°F):**

No information available

**pH:**

No information available

**Boiling point/range(°C/°F):**

192 °C/278 °F @ 4 mm Hg  
346 °C/654.8 °F @ 760 mm Hg

**Melting point/range(°C/°F):**

-35 °C/131 °F

**Decomposition temperature(°C/°F):**

No information available

**Specific gravity:**

No information available

**Density (g/cm<sup>3</sup>):**

0.889 @ 25 °C

**Bulk density:**

No information available

**Vapor pressure @ 20°C (kPa):**

No information available

**Vapor density:**

No information available

**Evaporation rate:**

No information available

**VOC content (g/L):**

No information available

**Odor threshold (ppm):**

No information available

**Partition coefficient  
(n-octanol/water):**

7.8

**Miscibility:**

Miscible with oils

**Solubility:**

Insoluble in water

## 10. STABILITY AND REACTIVITY

**Stability:**

Stable at normal conditions

**Conditions to avoid:**

Heat. Ignition sources. Exposure to air. Exposure to light.

**Materials to avoid:**

Strong oxidising agents.

**Hazardous decomposition products:**

Carbon monoxide. Carbon dioxide.

**Possibility of Hazardous Reactions:**

No information available

**Polymerization:**

Hazardous polymerisation does not occur

**Corrosivity:**

No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

*Linoleic Acid Methyl Ester - 112-63-0*

- LD50/oral/rat** = No information available
- LD50/oral/mouse** = No information available
- LD50/dermal/rabbit** = No information available
- LD50/dermal/rat** = No information available
- LC50/inhalation/rat** = No information available
- LC50/inhalation/mouse** = No information available
- Other LD50 or LC50 information** =  
No information available

#### Product Information

- LC50/inhalation/rat** = No information available
- LC50/inhalation/mouse** = No information available
- LD50/dermal/rabbit** = No information available
- LD50/dermal/rat** = No information available
- LD50/oral/mouse** = No information available

**LD50/oral/rat** = No information available

#### Local Effects

- Skin irritation:** May cause skin irritation in susceptible persons
- Eye irritation:** May cause eye irritation
- Inhalation:** May cause irritation of respiratory tract
- Ingestion:** Health injuries are not known or expected under normal use
- Sensitization:** No information available

#### Chronic Toxicity

**Chronic Toxicity** No information available

**Carcinogenic effects:** Not considered carcinogenic

Components	NTP	IARC	OSHA HCS - Carcinogens	ACGIH - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Linoleic Acid Methyl Ester	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** No information available

**Reproductive Effects:** No information available

**Teratogenic Effects:** No information available

**Target Organs:** No information available.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

**Toxicity to terrestrial and aquatic plants and animals:** No information available

**Ecotoxicity effects:** No data available.

**Aquatic toxicity:** No information available

**Mobility:** No information available

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Linoleic Acid Methyl Ester	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** Not regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** None  
**Subsidiary Risk:** Not applicable  
**Marine Pollutant:** No data available  
**ERG No:** No information available  
**DOT RQ (lbs):** No information available

### TDG (Canada)

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

### ADR

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

**IMO / IMDG**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant** No information available  
**MFAG:** No information available  
**Maximum Quantity:** No information available

**RID**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available

**ICAO**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

**IATA**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Description:** No information available

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Linoleic Acid Methyl Ester</i>	Present	Present	KE-26314	2-1085	Present	Present	203-993-0

**U.S. Regulations****California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.****Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Linoleic Acid Methyl Ester</i>	Not Listed	Not Listed	Not Listed	Not Listed



**CERCLA/SARA**

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Linoleic Acid Methyl Ester</i>	None	None	None	None	None

**U.S. TSCA**

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Linoleic Acid Methyl Ester</i>	Not Applicable	Not Applicable

**Canada****WHMIS hazard class:**

Non-controlled

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
<i>Linoleic Acid Methyl Ester</i>	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
<i>Linoleic Acid Methyl Ester</i>	Not listed	Not listed

**EU Classification****R -phrase(s)**

not determined

**S -phrase(s)**

none

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

Not dangerous

## 16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1-2004 standards.

**Preparation Date** 14-Sep-2011

**Reason for revision:** Not applicable

**Prepared by:** Sonia Owen

**Literature reference:** No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.