

# MATERIAL SAFETY DATA SHEET

## Linoleic acid

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	Linoleic acid
<b>Synonyms:</b>	(Z,Z)-9,12-Octadecadienoic acid
<b>Company Identification: (INDIA)</b>	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
<b>For information in the INDIA, call:</b>	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
60-33-3	Linoleic acid	99	200-470-9

<b>Hazard Symbols:</b>	XI
	
<b>Risk Phrases:</b>	36/37/38

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Irritating to eyes, respiratory system and skin.*

#### Potential Health Effects

<b>Eye:</b>	Causes eye irritation.
<b>Skin:</b>	Causes skin irritation. May be harmful if absorbed through the skin.
<b>Ingestion:</b>	May cause irritation of the digestive tract.
<b>Inhalation:</b>	Causes respiratory tract irritation. May be harmful if inhaled.
<b>Chronic:</b>	

### Section 4 - First Aid Measures

<b>Eyes:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
<b>Ingestion:</b>	Get medical aid. Wash mouth out with water.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
<b>Extinguishing Media:</b>	Use water spray, dry chemical, carbon dioxide, or chemical foam.

## Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

<b>Handling:</b>	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.
<b>Storage:</b>	Do not store in direct sunlight. Store in a tightly closed container. Store in a dry area. Keep under a nitrogen blanket. Keep refrigerated. (Store below 4°C/39°F.)

## Section 8 - Exposure Controls, Personal Protection

<b>Engineering Controls:</b>	
	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
<b>Exposure Limits</b>	CAS# 60-33-3:

### Personal Protective Equipment

<b>Eyes:</b>	Wear chemical splash goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Liquid
<b>Color:</b>	clear colorless to light yellow
<b>Odor:</b>	Not available
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	229 - 230 deg C @16mmHg
<b>Freezing/Melting Point:</b>	-5 deg C ( 23.00°F)
<b>Autoignition Temperature:</b>	Not available
<b>Flash Point:</b>	> 112 deg C (> 233.60 deg F)
<b>Explosion Limits: Lower:</b>	Not available
<b>Explosion Limits: Upper:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Insoluble
<b>Specific Gravity/Density:</b>	0.900 g/cc
<b>Molecular Formula:</b>	C18H32O2
<b>Molecular Weight:</b>	280.45

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Air sensitive.
<b>Conditions to Avoid:</b>	Incompatible materials, light, exposure to air, excess heat.
<b>Incompatibilities with Other Materials</b>	Strong oxidizing agents, reducing agents, bases.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide.
<b>Hazardous Polymerization</b>	Will not occur.

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 60-33-3: RF9990000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 60-33-3:</b> Oral, mouse: LD50 = >50 gm/kg; Other: Oral, rat: LD50 > 2000 mg/kg
<b>Carcinogenicity:</b>	Linoleic acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
<b>Other:</b>	See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

## Section 12 - Ecological Information

<b>Other:</b>	Do not empty into drains.
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## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

	IATA	IMO	RID/ADR
<b>Shipping Name:</b>	Not regulated.	Not regulated.	Not regulated.
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

## Section 15 - Regulatory Information

European/International Regulations	
European Labeling in Accordance with EC Directives	
Hazard Symbols: XI	
<b>Risk Phrases:</b>	
➤ R 36/37/38 Irritating to eyes, respiratory system and skin.	
<b>Safety Phrases:</b>	
➤ S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
➤ S 37/39 Wear suitable gloves and eye/face protection.	
<b>WGK (Water Danger/Protection)</b>	
➤ CAS# 60-33-3: 1	
<b>Canada</b>	
➤ CAS# 60-33-3 is listed on Canada's DSL List	

**US Federal**

- TSCA
- CAS# 60-33-3 is listed on the TSCA Inventory.

**Section 16 - Other Information**

<b>MSDS Creation Date:</b>	July 22, 2015
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<b>Revision #0 Date</b>	
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