



SHRINE CHEMICALS

Material safety data sheet (MSDS)					
1. Chemical Product And Company Identification					
Trade Name	:	OELIC ACID			
2. Composition / Ingredients					
Chemical Composition	:	Mainly Oleic Acid, Linoleic Acid & Linolenic Acid			
Average Molecular Weight	:	283.5			
Chemical Identity of Components	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; vertical-align: top;"> $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH}$ $\text{CH}_3(\text{CH}_2)_5(\text{CH}=\text{CH})_2(\text{CH}_2)_7\text{COOH}$ $\text{CH}_3(\text{CH}_2\text{CH}=\text{CH})_3(\text{CH}_2)_7\text{COOH}$ </td> <td style="width: 30%; vertical-align: top;"> Synonym Octadecenoic Acid Octadecadienoic Acid Octadecatrienoic Acid </td> <td style="width: 30%; vertical-align: top;"> CAS Nos. of Components 112-80-1 60-33-3 463-40-1 </td> </tr> </table>	$\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH}$ $\text{CH}_3(\text{CH}_2)_5(\text{CH}=\text{CH})_2(\text{CH}_2)_7\text{COOH}$ $\text{CH}_3(\text{CH}_2\text{CH}=\text{CH})_3(\text{CH}_2)_7\text{COOH}$	Synonym Octadecenoic Acid Octadecadienoic Acid Octadecatrienoic Acid	CAS Nos. of Components 112-80-1 60-33-3 463-40-1
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3. Hazard Identification (reference: 4)					
Health Rating	:	Slight			
Flammability Rating	:	Slight			
Reactivity Rating	:	Slight			
Contact Rating	:	Slight			
Storage	:	General			
4. First-aid Measures (reference: 4)					
Ingestion	:	Drink plenty of water			
Skin	:	Remove contaminated clothing and wash exposed area with plenty of water followed by soap and water			
Eye	:	Irrigate the eyes with plenty of water			
Inhalation	:	Take person into fresh air and allow to rest			
<i>*In all of the above cases, get a doctor to check the affected person.</i>					
5. Fire hazard and Fire-fighting Measures (reference: 1, 4)					
Flammability	:	Flammable and Combustible in contact with heat or fire			

Means of Extinction	:	Use Water spray, Carbon Dioxide, Dry Chemical, or Alcohol Foam. Use Water to keep fire exposed container cool
Flash Point	:	189° C
Auto Ignition	:	363° C
Hazardous Combustion Product	:	Cracked hydrocarbons
6. Accidental Release (reference: 4)		
Personal Protection	:	Use complete protective gear as prescribed in Section 8. High risk of slipping as product is a liquid
Leak And Spill Procedures	:	Remove sources of ignition, ventilate area, sweep up the liquid in dry sand and shovel into a closed container. Collect spillages into sumps/traps so as to minimise contamination of drains, surface & ground waters.
7. Handling and Storage Measures (reference: 4)		
Handling Containers	:	Use full protective gear. Protect containers against physical damage / direct sunlight / water
Storage Conditions of Containers	:	Use leak-proof and compatible Drums. Store in dry and well ventilated locations at ambient temperature away from direct sunlight.
8. Exposure controls and Personal protection Measures (reference: 4)		
Engineering Control :		
Use adequate ventilation to keep airborne concentrations low. Avoid inhalation of heated vapours.		
Personal Protection :		
Skin	:	Rubber Gloves
Respiration	:	Air respirator
Eyes	:	Goggles
Feet	:	Safety Shoes
Body	:	Lab Coat

Hygienic precautions	:	Remove contaminated clothing and wash hands between breaks and at the end of duty hours. Eye washes & Emergency Showers must be located in all work & storage areas.
9. Physical and Chemical Properties (reference: 1, 4, 5, 6)		
Physical State	:	Liquid above 25°C
Odour & Appearance	:	Pale Yellow Liquid with Slight Odour
Specific Gravity	:	0.884 at 60 °C
Boiling Point	:	192°C at 6mm
Melting Point	:	16 to 20 °C
Vapour Pressure	:	1mm at 176.5 °C
Solubility in water (20 °C)	:	Insoluble
10. Reactivity Data (reference: 4, 5, 6)		
Chemical Stability	:	Product stable under the prescribed storage conditions.
Incompatibility with Substances	:	Perchloric Acid
Reactivity / Conditions	:	Peroxidized acid with Aluminium
Hazardous Decomposition	:	Acrid smoke & irritating fumes of Carbon Oxides when heated above its BP
Hazardous Polymerization Products	:	None
11. Toxicological Properties (reference: 2, 3, 4, 5)		
Toxicity	:	Non toxic
Skin contact	:	Slight Erythema
Inhalation	:	Slight
Skin absorption	:	Slight
Eye contact	:	Slight Irritation
Ingestion	:	Rat LD ₅₀ > 21.5 ml/kg
Effect of Acute and Chronic Exposure to Material	:	The extensive use of Oleic, Linoleic & Linolenic Acids in Industry has not been accompanied by any reports of

		injury.
Irritancy of Material	:	Slight
Carcinogenicity, Reproductive Effects, Teratogenicity, Mutagenicity	:	None Reported
12. Ecological Information (reference: 4, 5, 6)		
<p>The product should not get into waters without treatment. Dissolved in water the material is easily biodegradable (90 %) and will not cause any disturbance in the waste water treatment plants. Due to its insolubility in water larger amounts need to be eliminated by separators typically used for fats and oils.</p> <p>Aquatic Ecotoxicity Fish LC₅₀ (96 hrs) > 205 mg/L</p>		
13. Waste Disposal (reference: 4, 5, 6)		
Leak And Spill Procedures	:	Sweep up the liquid in dry sand and shovel into a closed container
Disposal	:	Stored waste / recovered material used for recycle along with crude oils. Any unrecoverable / recyclable materials should be disposed off in accordance with the local, state or federal regulations.
14. Transport Recommendations (reference: 4, 5, 6)		
No special conditions, as it is not a regulated product. However one should observe the usual precautionary measures for transporting chemical cargo.		
15. Regulatory Requirements (reference: 4, 5, 6)		
According to the data available the product is not a regulated product. However one should observe the prescribed Federal, State & Local measures for dealing with chemicals.		
Hazard Identification	:	Irritant
Risk Phrases	:	R 36, 38
Safety Phrases	:	S 2, 24, 25
<p>The above mentioned classification is valid for Industrial users of this product.</p> <p>The 2 major Components are listed on EINECS (EU), TSCA (USA), DSL (Canada), AICS (Australia) & MITI (Japan)</p> <p>EINECS No : Oleic Acid 204-007-1 / Linoleic Acid 200-470-9 / Linolenic Acid 207-334-8</p>		

Not listed as a Carcinogen by NTP, IARC or OSHA .

16. Other Information

Note :- All the above data is based on only the 2 major fatty acids of this mixture.

Sources of information

1. Fatty Acids - Klare Markley (1960)
2. Palm Oil Developments No. 28 Page 22 - 49 (March 1998)
3. JAOCS 56 Page 760A - 767A (1979)
4. ICN Biochemicals - MSDS of Oleic Acid (31-12-1998)
5. Cognis Corporation – MSDS of Linoleic Acid (09/01/2001)
6. Cognis Corporation – MSDS of Linseed Fatty Acid (January 2000)