

# Material Safety Data Sheet

## Oleic acid

ACC# 17305

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Oleic acid**Catalog Numbers:** S80110, S93316, A195-500, A195B500**Synonyms:** cis-9-Octadecenoic acid; red oil; a monounsaturated fatty acid; a component of almost all natural fats.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
112-80-1	Oleic acid	>97	204-007-1

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless to pale red liquid.

**Caution!** May cause eye, skin, and respiratory tract irritation. Air sensitive. Refrigerate upon arrival below 4° C/39°F.**Target Organs:** Skin.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation. Prolonged or repeated contact may dry/defat the skin and cause irritation.**Ingestion:** May cause irritation of the digestive tract. Low hazard for usual industrial handling.**Inhalation:** May cause respiratory tract irritation. Low hazard for usual industrial handling.**Chronic:** Prolonged or repeated skin contact may cause defatting and dermatitis.

### Section 4 - First Aid Measures

**Eye:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.**Skin:** Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap

and water.

**Ingestion:** Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Liquid will float and may reignite on the surface of water.

**Extinguishing Media:** Water or foam may cause frothing. Use dry chemical or carbon dioxide.

**Flash Point:** 184 deg C ( 363.20 deg F)

**Autoignition Temperature:** 363 deg C ( 685.40 deg F)

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with air and sunlight.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Absorbs oxygen from the air and will darken upon exposure. Refrigerate upon arrival below 4°C/39°F.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Oleic acid	none listed	none listed	none listed

**OSHA Vacated PELs:** Oleic acid: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Glove protection is not normally required.

**Clothing:** Protective garments not normally required.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless to pale red

**Odor:** lardlike

**pH:** Not available.

**Vapor Pressure:** 1 mm Hg @ 177 deg C

**Vapor Density:** 9.7 (air=1)

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** 360 deg C

**Freezing/Melting Point:** 13.4 deg C

**Decomposition Temperature:** 80-100 deg C

**Solubility:** Insoluble.

**Specific Gravity/Density:** 0.895 (water=1)

**Molecular Formula:** C<sub>18</sub>H<sub>34</sub>O<sub>2</sub>

**Molecular Weight:** 282.46

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Darkens on exposure to air. On exposure to air, acquires rancid odor.

**Conditions to Avoid:** High temperatures, light, exposure to air.

**Incompatibilities with Other Materials:** Strong oxidizing agents, perchloric acid, powdered aluminum.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 112-80-1:** RG2275000

**LD50/LC50:**

**CAS# 112-80-1:**

Draize test, rabbit, eye: 100 mg Mild;

Oral, mouse: LD50 = 28 gm/kg;

Oral, rat: LD50 = 25 gm/kg; Human Skin Draize 15 mg/3D intermittent; REACTION: Moderate.

**Carcinogenicity:**

**CAS# 112-80-1:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found.

**Teratogenicity:** No information found.

**Reproductive Effects:** No information found.

**Mutagenicity:** Cytogenetic Analysis: hamster fibroblast 2500ug/L. Unscheduled DNA Synthesis: mouse rec' .1g/kg.

**Neurotoxicity:** No information found.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Fathead Minnow: LC50 = 205 mg/L; 96 Hr.; Static condition

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 112-80-1 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**an Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 112-80-1 can be found on the following state right to know lists: Pennsylvania.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 112-80-1: 1

**Canada - DSL/NDSL**

CAS# 112-80-1 is listed on Canada's DSL List.

**Canada - WHMIS**

This product does not have a WHMIS classification.

**Canadian Ingredient Disclosure List**

CAS# 112-80-1 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 6/09/1999

**Revision #7 Date:** 3/28/2003

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