



Health	1
Fire	1
Reactivity	0
Personal Protection	J

## Material Safety Data Sheet Oleic acid MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Oleic acid

**Catalog Codes:** 11055

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

**RTECS:** RG2275000

**TSCA:** TSCA 8(b) inventory: Oleic acid

**CI#:** Not available.

**Synonym:** 9-Octadecenoic acid

**Chemical Name:** (Z)-9-Octadecenoic Acid

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

**Contact Information:**

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### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Oleic acid	112-80-1	100

**Toxicological Data on Ingredients:** Oleic acid: ORAL (LD50): Acute: 25000 mg/kg [Rat]. 28000 mg/kg [Mouse].

### Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** 363°C (685.4°F)

**Flash Points:** CLOSED CUP: 188.89°C (372°F). OPEN CUP: 198.89°C (390°F) - 218.33 C (425 F).

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO2).

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Large Spill:**

If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7: Handling and Storage

**Precautions:**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

**Storage:**

Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers. Air Sensitive

**Section 8: Exposure Controls/Personal Protection****Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:** Splash goggles. Lab coat. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

**Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Liquid.

**Odor:** Peculiar Lard-Like odor

**Taste:** Not available.

**Molecular Weight:** 282.47 g/mole

**Color:** Colorless to light yellow.

**pH (1% soln/water):** Not applicable.

**Boiling Point:** 286.11°C (547°F)

**Melting Point:** 16.3°C (61.3°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 0.895 (Water = 1)

**Vapor Pressure:** Not available.

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

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, methanol, diethyl ether, acetone.

**Solubility:**

Soluble in methanol, diethyl ether, acetone. Insoluble in cold water. Soluble in chloroform, most organic solvents, benzene, alcohol, carbon tetrachloride, and fixed and volatile oils.

**Section 10: Stability and Reactivity Data**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat

**Incompatibility with various substances:** Reactive with oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:**

Air and light sensitive. On exposure to air, especially when impure, it oxidizes and acquires a yellow to brown color and rancid odor. Also incompatible with perchloric acid, and powdered aluminum.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact.

**Toxicity to Animals:** Acute oral toxicity (LD50): 25000 mg/kg [Rat].

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:**

Human: passes the placental barrier, detected in maternal milk. May cause cancer based on animal test data. No human data found. May affect genetic material (mutagenic).

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: May cause eye irritation. Ingestion: May cause digestive tract irritation. It is expected to be a low hazard for usual industrial handling. Inhalation: May cause respiratory tract irritation. It is expected to be a low hazard to usual industrial handling. Note: According the Registry of Toxic Effects of Chemicals, when Oleic acid was administered to rats and mice through intravenous injection, behavior and respiration were affected.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

### **Federal and State Regulations:**

Rhode Island RTK hazardous substances: Oleic acid Pennsylvania RTK: Oleic acid TSCA 8(b) inventory: Oleic acid

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### **Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

### **DSCL (EEC):**

R36/38- Irritating to eyes and skin. S24/25- Avoid contact with skin and eyes. S28- After contact with skin, wash immediately with plenty of water. S35- This material and its container must be disposed of in a safe way. S37- Wear suitable gloves.

### **HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 1

**Reactivity:** 0

**Personal Protection:** j

### **National Fire Protection Association (U.S.A.):**

**Health:** 0

**Flammability:** 1

**Reactivity:** 0

**Specific hazard:**

### **Protective Equipment:**

Gloves. Lab coat. Not applicable. Splash goggles.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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