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Material Safety Data Sheet Oleic acid MSDS

Section 1: Chemical Product and Company Identification

Product Name: Oleic acid
Catalog Codes: SLO1078, SLO1318
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: C18H34O2

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CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300
International CHEMTREC, call: 1-703-527-3887

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

This safety data sheet is a complement to the technical brochure of the product but does not replace it. The information and data presented are based on our knowledge of the product as of the date shown above, except as set forth above, McKinley Resources makes no warranties, whether express, implied or statutory, as to the products which is the subject of this document without limiting the generality of the foregoing. McKinley Resources makes no warranty of merchantability of the product or the fitness of the product for any particular purpose. Buyer assumes all risk and liability resulting from the use of sale of the product whether singly or in combination with other goods. The information set forth herein is furnished free of charge and is based in technical data that McKinley Resources believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since condition of use are outside McKinley Resources' control, McKinley Resources makes no warranties, express or implied, and assumes no liability in connection with any use of this information, nothing herein is to be taken as a license to operate under or a recommendation to infringe and patents.