Material Safety Data Sheet

City University of Hong Kong

MSDS STEARIC ACID 0136

PRODUCT INFORMATION

Product Name: Stearic Acid
Chinese Name: 硬脂酸
Common Synonyms: Octadecanoic Acid; 1-Heptadecanecarboxylic Acid
Chemical Family: Organic Acids
Formula: C\(_{18}\)H\(_{36}\)O\(_2\)
Formula Wt.: 284.49
CAS No.: 57-11-4
Product Use: Laboratory Reagent

RISK SYMBOL

PHYSICAL DATA
Physical State: Solid
Boiling Point: 383 deg. C (721 deg. F) (at 760 mmHg)
Melting Point: 69 deg. C (156 deg. F) (at 760 mmHg)
Specific Gravity: 0.87 (H₂O=1)
Solubility(H₂O): Negligible (<0.1%) (21 deg. C)

Vapor Pressure (mmHg): N/A
Vapor Density (Air=1): 9.8
Evaporation Rate: N/A
% Volatiles By Volume: 0

pH: N/A
Odor Threshold (ppm): N/A
Coefficient Water/Oil Distribution: N/A

Appearance & Odor: White to light yellow solid. Tallow-like odor.

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FIRE AND EXPLOSION DATA  
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Flash Point (Closed Cup): 195 deg. C (385 deg. F)
Autoignition Temperature: N/A
Flammable Limits: Upper - N/A Lower - N/A
Fire Extinguishing Media: Use alcohol foam, dry chemical or carbon dioxide. (water may be ineffective.)
Special Fire-Fighting Procedures:
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Unusual Fire & Explosion Hazards: dust may form explosive mixture with air.
Toxic Gases Produced: Carbon monoxide, carbon dioxide

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REACTIVITY DATA  
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Stability: Stable
Hazardous Polymerization: Will not occur
Conditions To Avoid: Heat, flame, other sources of ignition, dusting
Incompatibles: Strong bases, strong oxidizing agents
Decomposition Products: Carbon monoxide, carbon dioxide

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HEALTH HAZARD DATA  
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Inhalation: Irritation of upper respiratory tract
Skin Contact: None identified
Eye Contact: Irritation

The above information is believed to be accurate to the best of our knowledge.
No responsibilities or liabilities are assumed or implied by CITY U for their inaccuracies.
Skin Absorption: None identified
Ingestion: None identified
Chronic Effects: None identified
Threshold Limit Value (TLV/TWA): Not established
Short-Term Exposure Limit (STEL): Not established
Permissible Exposure Limit (PEL): Not established
Toxicity Of Components:

Intravenous Mouse LD$_{50}$ For Stearic Acid 23 mg/kg
Intravenous Rat LD$_{50}$ For Stearic Acid 21.5 mg/kg
Carcinogenicity: NTP: No  IARC: No  Z LIST: No  OSHA REG: No

Carcinogenicity: None identified.
Reproductive Effects: None identified.
Target Organs: None identified
Medical Conditions Generally Aggravated By Exposure: None identified
Primary Routes Of Entry: Inhalation, eye contact

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FIRST AID MEASURES
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Ingestion:
If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Inhalation: If a person breathes in large amounts, move the exposed person to fresh air.
Skin Contact:
In case of contact, immediately wash skin with plenty of soap and water for at least 15 minutes.
Eye Contact: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

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PREVENTATIVE MEASURES
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Ventilation:
Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Respiratory Protection:
None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.

Eye/Skin Protection: Safety goggles, rubber gloves are recommended.
Storage Requirements:
Keep container tightly closed. Suitable for any general chemical storage area. Store in a cool, well-ventilated area away from sources of heat, flame, or ignition.

ENVIRONMENTAL PROTECTION DATA

Steps To Be Taken In The Event Of A Spill Or Discharge:
Wear suitable protective clothing. Carefully sweep up and remove.

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