

MATERIAL SAFETY DATA SHEET STEARIC ACID MSDS

1: Chemical Product and Company Identification

Product Name: Stearic acid

Catalogue Codes: SLS2320, SLS3742

CAS#: 57-11-4

RTECS: WI2800000

TSCA: TSCA 8(b) inventory: Stearic acid

CI#: Not available.

Synonym: Octadecanoic acid; 1-Heptadecanecarboxylic acid; Stearophanic acid; n-Octadecanoic acid

Chemical Name: Stearic Acid

Chemical Formula: C18H36O2

2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Stearic acid	57-11-4	100

Toxicological Data on Ingredients: Not applicable.

3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

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.

5: Fire and Explosion Data

Flammability of the Product:

May be combustible at high temperature.

Auto-Ignition Temperature:

395°C (743°F)

Flash Points:

CLOSED CUP: 196.11°C (385°F).

Flammable Limits:

Not available.

Products of Combustion:
CO2).

These products are carbon oxides (CO,

Fire Hazards in Presence of Various Substances:
of heat. Non-flammable in presence of shocks.

Slightly flammable to flammable in presence

Explosion Hazards in Presence of Various Substances:
flames and sparks. Non-explosive in presence of shocks.

Slightly explosive in presence of open

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:

When heated to decomposition it emits acrid smoke and irritating fumes. As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards:

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, alkalis.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 10 from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

9: Physical and Chemical Properties

Physical state and appearance:	Solid. (Crystalline solid. Powdered solid.)
odour:	Tallow-like (Slight.)
Taste:	Not available.
Molecular Weight:	284.48 g/mole
Colour:	White to yellowish.
pH (1% soln/water):	Not applicable.
Boiling Point:	Decomposition temperature: 350°C (662°F)
Melting Point:	69.4 (156.9°F)
Critical Temperature:	Not available.
Specific Gravity:	0.9408 (Water = 1)
Vapor Pressure:	Not applicable.
Vapor Density:	9.8(Air = 1)
Volatility:	Not available.
odour Threshold:	20 ppm
Water/Oil Dist. Coeff.:	
	The product is more soluble in oil; log(oil/water) = 8.2
Iconicity (in Water):	Not available.
Dispersion Properties:	See solubility in water, diethyl ether, acetone.
Solubility:	Easily soluble in diethyl ether. Soluble in acetone. Insoluble in cold water, hot water. Slightly soluble in Ethanol. Soluble in alcohol, chloroform, carbon disulphide, carbon tetrachloride, amyl acetate, toluene. 1-gram dissolves in 21 ml alcohol, 5 ml benzene, 2 ml chloroform, 26 ml acetone, 6 ml carbon tetrachloride, 3.4 ml carbon disulphide.

Section 10: Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Heat, incompatible materials, dust generation, ignition sources
Incompatibility with various substances:	Reactive with oxidizing agents, alkalis.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Not available.
Special Remarks on Corrosivity:	Not available.
Polymerization:	Will not occur.

11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 4640 mg/kg [Rat]. Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].

Chronic Effects on Humans: Not available.

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

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause cancer based on animal test data

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: May cause skin irritation.

Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Symptoms may include coughing, sore throat, laboured breathing, and chest pain.

Ingestion: Ingestion of large oral doses may cause irritation to the gastrointestinal tract.

Ingestion may also cause intestinal obstruction.

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.

13: Disposal Considerations

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

14: Transport Information

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

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

15: Other Regulatory Information.

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

16: Other Information

References: Not available.

Other Special Considerations: Not available

EXCLUSION OF LIABILITY

All information and instructions provided in this Material Safety Data Sheet in respect of the substance is given solely in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993 and Regulations ("the Act"), is based on scientific and technical knowledge as at the date indicated on this MS Material Safety Data Sheet and is presented in good faith to be correct.

The information and instructions provided in this MSDS apply only to the substance in its present form and not to any formulation or mix, in which event it is the sole responsibility of the user of the substance as formulated and/or mixed to investigate and establish any danger which may arise out of its use, wherever such user may be situated.

It is the sole responsibility of the person in receipt of this Material Safety Data Sheet wherever such recipient may be situated, to ensure that the information provided is communicated to and understood by any person who may come in contact with the substance in any place and in any manner whatsoever. If such recipient produces formulations or mixes using the substance, then it is such recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary Material Safety Data Sheet, or to comply with any other applicable legislation.