

**PT DUA KUDA  
INDONESIA**

**Material Safety Data Sheet  
Stearic Acid**

**1. Product Identification**

**Synonyms:** Octadecanoic acid; 1-heptadecanecarboxylic acid

**CAS No.:** 57-11-4

**Molecular Weight:** 284.48

**Chemical Formula:** CH<sub>3</sub>(CH<sub>2</sub>)<sub>16</sub>COOH

**Product Codes:**

J.T. Baker: 0340

Mallinckrodt: 2025, 2216, 2236, 4038

**2. Composition/Information on Ingredients**

Ingredient	CAS No	Percent	Hazardous
Stearic Acid	57-11-4	40 - 100%	Yes

**3. Hazards Identification**

**Emergency Overview**

**CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 1 - Slight

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT

Storage Color Code: Orange (General Storage)

**Potential Health Effects**

**Inhalation:**

May cause irritation to the respiratory tract. Symptoms may include coughing, sore throat, labored breathing, and chest pain.

**Ingestion:**

Large oral doses may cause irritation to the gastrointestinal tract. Ingestion may cause intestinal obstruction.

**Skin Contact:**

May cause irritation with redness and pain.

**Eye Contact:**

May cause irritation, redness and pain.

**Chronic Exposure:**

No adverse health effects expected.

**Aggravation of Pre-existing Conditions:**

No information found.

**4. First Aid Measures****Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

**5. Fire Fighting Measures****Fire:**

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. Melted fatty acid can give "grease" type fire.

**Explosion:**

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

**Fire Extinguishing Media:**

Dry chemical, foam or carbon dioxide. Pressure from the extinguishing media may cause severe dusting. Do not use heavy streams of water, molten material will float on water.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved

self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## **6. Accidental Release Measures**

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

## **7. Handling and Storage**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## **8. Exposure Controls/Personal Protection**

### **Airborne Exposure Limits:**

- OSHA Permissible Exposure Limit (PEL):

15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable fraction for nuisance dusts.

- ACGIH Threshold Limit Value (TLV):

10 mg/m<sup>3</sup> total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and

quick-drench facilities in work area.

## 9. Physical and Chemical Properties

### **Appearance:**

White or yellowish-white powder.

### **Odor:**

Odor resembles fats and oils.

### **Solubility:**

Insoluble in water.

### **Specific Gravity:**

0.94 @ 20C/4C

### **pH:**

No information found.

### **% Volatiles by volume @ 21C (70F):**

0

### **Boiling Point:**

383C (721F)

### **Melting Point:**

54 - 57C

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

9.8

### **Vapor Pressure (mm Hg):**

1 @ 173.7C (345F)

### **Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

### **Stability:**

Stable under ordinary conditions of use and storage.

### **Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

### **Hazardous Polymerization:**

Will not occur.

### **Incompatibilities:**

Strong oxidizers, strong bases.

### **Conditions to Avoid:**

Heat, flame, ignition sources, dusting and incompatibles.

## 11. Toxicological Information

Skin rabbit LD50: > 5000 mg/kg; Standard Draize, human skin, 75 mg/3D-I, mild; Standard Draize, rabbit skin, 500 mg/24-hr, moderate; investigated

as a tumorigen and mutagen.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Stearic Acid (57-11-4)	No	No	None

## 12. Ecological Information

### Environmental Fate:

When released into the soil, this material is expected to readily biodegrade.

When released into water, this material is expected to readily biodegrade.

### Environmental Toxicity:

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Stearic Acid (57-11-4)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	--Canada--			
	Korea	DSL	NDSL	Phil.
Stearic Acid (57-11-4)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Stearic Acid (57-11-4)				

Stearic Acid (57-11-4)	No	No	No	No
-----\Federal, State & International Regulations - Part 2\-----				
Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)	
Stearic Acid (57-11-4)	No	No	No	

Chemical Weapons Convention: No    TSCA 12(b): No    CDTA: No  
SARA 311/312: Acute: Yes    Chronic: No    Fire: Yes Pressure: No  
Reactivity: No                    (Pure / Solid)

16. Other Information

**NFPA Ratings:** Health: **1** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Label Precautions:**

- Avoid contact with eyes, skin and clothing.
- Wash thoroughly after handling.
- Avoid breathing dust.
- Keep container closed.
- Use with adequate ventilation.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Information Found.

**Disclaimer:**

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