

# STEARIC ACID MSDS

## 1. Product Identification

- **Substance:** Stearic acid (Octadecanoic acid), CAS No. 57-11-4
- **Supplier:** e.g. Spectrum Chemical (USA) or TCI Europe (EU)

## 2. Hazard Identification

- **Classification:** GHS — Skin Irrit. 2 (H315), Eye Irrit. 2 (H319)
- **Label elements:** Warning; avoid breathing dust; wear gloves, eye protection

## 3. Composition / Information on Ingredients

- 100% stearic acid; CAS 57-11-4; >98% purity; may be lumps or flakes

## 4. First-Aid Measures

- **Eyes:** Flush with water  $\geq 15$  min; remove lenses; seek medical help if irritation persists
- **Skin:** Wash with soap & water; remove clothes; seek aid if irritation persists
- **Inhalation:** Move to fresh air; if breathing difficult, give oxygen or CPR; get medical help
- **Ingestion:** Do not induce vomiting; if conscious, give water/milk; seek medical attention promptly

## 5. Fire-Fighting Measures

- **Flash point:**  $\sim 196$  °C (closed cup)
- **Auto-ignition:**  $\sim 395$  °C
- **Combustion products:** CO and CO<sub>2</sub>
- **Extinguishers:** Use water spray, dry chemical, CO<sub>2</sub>, foam; wear full protective gear and SCBA if needed

## 6. Accidental Release Measures

- Avoid dust formation; sweep or vacuum solids into disposal containers; ventilate area; wear appropriate PPE

## 7. Handling and Storage

- **Handling:** Minimize dust; avoid skin/eye contact; wear gloves, goggles, protective clothing

- **Storage:** In dry, cool, shaded place; sealed tightly; avoid moisture and ignition sources

## 8. Exposure Controls / Personal Protection

- **Exposure limits:** None established. Use dust or mist controls
- **Engineering:** Local exhaust or enclosures recommended
- **PPE:** Gloves, goggles, protective clothing; respirator if dust exposure is possible

## 9. Physical and Chemical Properties

- **Appearance:** White solid (flakes or powder), mild odor; insoluble in water
- **Melting point:** ~67–71 °C
- **Boiling point:** ~361 °C (decomposes)
- **Density:** ~0.94 g/cm<sup>3</sup> at 20 °C

## 10. Stability and Reactivity

- **Stability:** Stable under normal conditions
- **Conditions to avoid:** Heat, dust, ignition sources, incompatible materials
- **Incompatibles:** Strong oxidizers, bases, reducing agents
- **Polymerization:** Will not occur

## 11. Toxicological Information

- **Acute toxicity:** Rat oral LD<sub>50</sub> > 2000–5000 mg/kg; Rabbit dermal LD<sub>50</sub> > 5000 mg/kg; dust inhalation irritant
- **Irritation:** Mild skin/eye irritation possible
- **Chronic effects:** Not listed as carcinogen by IARC, NTP, OSHA; no mutagenic or reproductive effects documented
- **Animal caution:** Intravenous exposure at high doses can be thrombogenic (not relevant for typical handling)

## 12. Ecological Information

- Not readily biodegradable; may have long-lasting aquatic effects (H413 per GHS)

## 13. Disposal Considerations

- Dispose per local environmental regulations; do not release into drains; container rinse recommended; follow waste disposal protocols
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