


MATERIAL SAFETY DATA SHEET

| SECTION I NAME | | 24 HOUR EMERGENCY ASSISTANCE | | |
|-------------------|---|---|------------|---|
| Product | STEARIC ACID |  <p>CHEMTREC 800-424-9300 Day 716-226-6177 Night 716-334-4222</p> <p>NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4</p> | Health | 1 |
| Chemical Synonyms | Octadecanoic Acid | | Fire | 1 |
| Formula | CH ₃ (CH ₂) ₁₆ COOH | | Reactivity | 1 |
| Unit(s) Size | 100, 500 grams, 2.5 Kg. | | | |
| C.A.S. No. | 57-11-4 | | | |

| SECTION II HAZARDOUS INGREDIENTS OF MIXTURES | | |
|--|------|------------------|
| Principal Hazardous Component(s) | % | TLV Units |
| Stearic Acid | 100% | None established |
| CAUTION! SUSCEPTIBLE TO SPONTANEOUS HEATING- THIS MATERIAL IN POWDER FORM IS CAPABLE OF CREATING A DUST EXPLOSION. | | |

| SECTION III PHYSICAL DATA | | | |
|---------------------------|--|---------------------------------------|-------------------|
| Melting Point (°F) | 69.3°C | Specific Gravity (H ₂ O=1) | 0.847 at 20°C |
| Boiling Point (°F) | 383°C | Percent Volatile by Volume (%) | Non-volatile (NA) |
| Vapor Pressure (mm Hg) | 1 mm @ 173.7°C | Evaporation Rate (=1) | Non-volatile (NA) |
| Vapor Density (Air=1) | 9.80 | | |
| Solubility in Water | Very slightly soluble | | |
| Appearance and Odor | White, flakes, crushed flakes, granules; tallow-like odor. | | |

| SECTION IV FIRE AND EXPLOSION HAZARD DATA | | | |
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| Flash Point (Method Used) | 385°F (cc) | Flammable Limits in Air % by Volume | Unknown |
| Extinguisher Media | Foam; Carbon dioxide (CO ₂); dry chemical (ABC). | | |

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| SPECIAL FIREFIGHTING PROCEDURES | Melted stearic acid should be handled like a grease fire with knowledge that it can float on water and spread. In fire conditions, wear a NIOSH-approved self-contained breathing apparatus. |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials. |
| | Autoignition temperature: 743°F |
| O.T. | NON-REGULATED |

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

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| Threshold Limited Value | None established. ACGIH (1983-84). |
| Effects of Overexposure | Stearic acid is practically non-toxic. INHALATION: Non hazardous. EYES: No specific hazard is known. However, any material that contacts the eye, may be irritating. SKIN: Low hazard. None expected. INGESTION: Low hazard. None expected. |
| Emergency and First Aid Procedures | No specific measures indicated. Specific data is not available. This compound is considered to be of low hazard by ingestion or by contact. Exercise appropriate procedure to minimize potential hazards. |

SECTION VI REACTIVITY DATA

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| Stability | Unstable Stable | x | Conditions to Avoid Excessive temperature and heat. |
| Incompatibility (Materials to avoid) | Strong oxidizing agents. | | |
| Hazardous Decomposition Products | Combustion will produce carbon dioxide, smoke and probably emits carbon monoxide. | | |
| Hazardous Polymerization | May Occur | Will Not Occur | Conditions to Avoid |
| | | x | Not applicable. |

SECTION VII SPILL OR LEAK PROCEDURES

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| Steps to be taken in case material is released or spilled | Remove all sources of ignition. Sweep up and place in a suitable container. |
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| Waste Disposal Method | Dispose of in an approved incinerator. |
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Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

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| Respiration Protection (Specify Type) | None needed in normal laboratory use. Dust mask, if needed. | | | |
| Ventilation | Local Exhaust | None needed | Special | No |
| | Mechanical (General) | None needed | Other | No |
| Protective Gloves | None needed | | Eye Protection | Chemical safety glasses. |
| Other Protective Equipment | Lab coat, eye wash station, fire extinguisher. | | | |

SECTION IX SPECIAL PRECAUTIONS

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| Precautions to be Taken in Handling and Storing | Store in a cool dry place. Wash thoroughly after handling. |
| | Keep container tightly closed when not in use. |
| Other Precautions | Read label on container before using. |

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

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| Rev. No. | No.1 | Date | 1/12/87 | Approved | Alexander Piccirilli | Chemical Safety AP Coordinator |
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