12-Hydroxystearic Acid
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 12/17/2013 Supersedes: 03/03/2011 Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product Identifier
Product Form: Substance
Product Name: 12-Hydroxystearic Acid
Synonyms: 12-Hydroxystearic Acid, 12-HSA
CAS No.: 106-14-9

1.2. Intended Use of the Product
Use of the substance/mixture: Thickener for lithium grease

1.3. Name, Address, and Telephone of the Responsible Party
Company
Acme-Hardesty Co.
450 Sentry Parkway
Blue Bell, PA  19422
T 866-226-3834   T 215-591-3610
www.acme-hardesty.com

1.4. Emergency Telephone Number
Emergency Number : 800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
Comb. Dust

2.2. Label Elements
GHS-US Labeling
Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) : May form combustible dust concentrations in air

2.3. Other Hazards
No data available

2.4. Unknown Acute Toxicity (GHS-US):
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octadecanoic acid, 12-hydroxy-</td>
<td>(CAS No) 106-14-9</td>
<td>100</td>
<td>Comb. Dust</td>
</tr>
</tbody>
</table>

3.2. Mixtures
Not applicable

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area.
First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.
First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Prolonged contact with large amounts of dust may cause mechanical irritation.

Symptoms/Injuries After Inhalation: Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.

Symptoms/Injuries After Skin Contact: Not irritating to skin.

Symptoms/Injuries After Eye Contact: Dust from this product may cause minor eye irritation.

Symptoms/Injuries After Ingestion: May cause nausea, vomiting, and diarrhea.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical, water spray, regular foam, sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Dust clouds can be explosive.

Reactivity: Stable at ambient temperature and under normal conditions of use.

5.3. Advice for Firefighters

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment. Avoid generating dust. Can be slippery on hard, smooth walking area.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).


6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Not applicable

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Avoid generation of dust during clean-up of spills. Use a soft bristle brush or conductive rubber or conductive plastic shovel. Use caution, material is sensitive to initiation from sources such as heat, flame, shock, friction, or sparks. Use only non-sparking tools.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May form combustible dust concentrations in air. Use care during processing to minimize generation of dust. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Precautions for Safe Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Use and store in a well ventilated area. Avoid temperature higher than 72°C.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.
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Incompatible Products: Strong bases. Strong oxidizers.
Storage Temperature: Maximum: 72 °C (161.6 °F) In bulk, store at about 5-10°C above melting point or at ambient temperature.
Storage Area: Temperature higher than necessary degrades quality at rates dependent on time and temperature of exposure.
Special Rules on Packaging: Stainless steel preferred for storage.

7.3. Specific End Use(s) Thickener for lithium grease

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

8.2. Exposure Controls
Appropriate Engineering Controls
: Avoid dust production. Ground/bond container and receiving equipment.

Personal Protective Equipment
: Gloves. Protective goggles.

Hand Protection
: Rubber gloves.
Eye Protection
: Chemical goggles or safety glasses.
Respiratory Protection
: When manufacturing or handling product in large quantities and dusts or particulates may be generated, maintain airborne concentrations below recommended limits. Workplace risk assessments should be completed before specifying and implementing respirator usage. NIOSH/MSHA approved respirators for protection should be used if respirators are found to be necessary.

Other Information
: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State
: Solid
Appearance
: White to cream-colored, flakes or powder.
Odor
: Natural, non-offending.
Odor Threshold
: No data available
pH
: No data available
Relative Evaporation Rate (butylacetate=1)
: No data available
Melting Point
: 72 - 77 °C (161.6-170.6°F)
Freezing Point
: No data available
Boiling Point
: > 300 °C (572°F)
Flash Point
: > 210 °C (410°F)
Auto-ignition Temperature
: No data available
Decomposition Temperature
: No data available
Flammability (solid, gas)
: No data available
Vapor Pressure
: No data available
Relative Vapor Density at 20 °C
: No data available
Relative Density
: No data available
Specific Gravity
: 0.95 g/l @25°C
Solubility
: Insoluble.
Log Pow
: No data available
Log Kow
: No data available
Viscosity, Kinematic
: No data available
Viscosity, Dynamic
: 17 cP @93°C
Explosive Properties
: No data available
Oxidizing Properties
: No data available
9.2. Other Information
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Stable at ambient temperature and under normal conditions of use.
10.2 Chemical Stability: Dust clouds can be explosive.
10.3 Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.4 Conditions to Avoid: Avoid creating or spreading dust. Avoid ignition sources.
10.5 Incompatible Materials: Strong bases. Strong oxidizers.
10.6 Hazardous Decomposition Products: Carbon oxides (CO, CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects
Acute Toxicity: Not classified
Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/Injuries After Skin Contact: Not irritating to skin.
Symptoms/Injuries After Eye Contact: Dust from this product may cause minor eye irritation.
Symptoms/Injuries After Ingestion: May cause nausea, vomiting, and diarrhea.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - General: Not established.

12.2. Persistence and Degradability
12-Hydroxystearic Acid
Persistence and Degradability: Not established.

12.3. Bioaccumulative Potential
12-Hydroxystearic Acid
Bioaccumulative Potential: Not established.

12.4. Mobility in Soil
No additional information available

12.5. Other Adverse Effects
Other Information: Not applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.
Ecology – Waste Materials: Not applicable.
SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

14.1. UN Number  Not applicable

14.2. UN Proper Shipping Name  Not regulated for transport.

14.3. Additional Information

Other Information: No supplementary information available.

Transport by Sea  Not regulated for transport.

Air Transport  Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Octadecanoic acid, 12-hydroxy- (106-14-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations

The product and/or its components does not appear on any state Right to Know lists.

SECTION 16: OTHER INFORMATION

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

<table>
<thead>
<tr>
<th>Comb. Dust</th>
<th>Combustible Dust</th>
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<tbody>
<tr>
<td>May form combustible dust...</td>
<td></td>
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</table>

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