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

1.1. Product Identifier
Product Form: Substance
Product Name: Methyl Laurate
CAS No: 111-82-0
Synonyms: Methyl Laurate PME M1298; Methyl Laurate M1298

1.2. Intended Use of the Product
Use of the substance/mixture: Metal Working Fluids; Textiles; Lubricants & Greases; CASE

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
GHS-US classification
Aquatic Acute 1 H400
Aquatic Chronic 2 H411
Full text of H-phrases: see section 16

2.2. Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US) : [Image]

Signal Word (GHS-US) : Warning
Hazard Statements (GHS-US) : H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects
Precautionary Statements (GHS-US) : P273 - Avoid release to the environment.
P391 - Collect spillage.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards
Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Name : Methyl Laurate
CAS No : 111-82-0
Methyl Laurate
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecanoic acid, methyl ester</td>
<td>(CAS No) 111-82-0</td>
<td>100</td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

3.2. Mixture
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. Obtain medical attention if breathing difficulty persists.
First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed
Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide. Use extinguishing media appropriate for surrounding fire.
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: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire.
Firefighting Instructions: Use water spray or fog for cooling exposed containers.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

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. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions
Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.
Methyl Laurate
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.3. Methods and Material for Containment and Cleaning Up
For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections
See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Incompatible Products: Strong acids, strong bases, strong oxidizers.
Incompatible Materials: Sources of ignition. Direct sunlight.

7.3. Specific End Use(s)
Metal Working Fluids; Textiles; Lubricants & Greases; CASE

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls
Appropriate Engineering Controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Materials for Protective Clothing : Chemically resistant materials and fabrics.
Hand Protection : Wear protective gloves.
Eye Protection : Chemical safety goggles.
Skin and Body Protection : Wear suitable protective clothing.
Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

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 : Liquid
Appearance : Colorless
Odor : Musty
Odor Threshold : No data available
pH : No data available
Relative Evaporation Rate (butylacetate=1) : No data available
Melting Point : 5.2 °C (41.36 °F)
Freezing Point : No data available
Boiling Point : 261.85 °C (503.33 °F) @ 1013 hPa
### Flash Point: 139 °C (282.2 °F)

### Auto-ignition Temperature: 220 °C (428 °F)

### Decomposition Temperature: No data available

### Flammability (solid, gas): Not flammable

### Vapor Pressure: No data available

### Relative Vapor Density at 20 °C: 0.55 Pa @ 25°C

### Relative Density: No data available

### Specific Gravity: 0.867 @ 20°C

### Solubility: No data available

### Partition Coefficient: N-Octanol/Water: 5.41 @ 36°C

### Viscosity: 3.6 m²/s @ 20°C

### Explosive Properties: No data available

### Oxidizing Properties: No data available

### Explosive Limits: No data available

9.2. **Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity**: Hazardous reactions will not occur under normal conditions.

10.2 **Chemical Stability**: Stable under recommended handling and storage conditions (see section 7).

10.3 **Possibility of Hazardous Reactions**: Hazardous polymerization will not occur.

10.4 **Conditions to Avoid**: Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5 **Incompatible Materials**: Strong acids, strong bases, strong oxidizers.

10.6 **Hazardous Decomposition Products**: Carbon dioxide (CO₂).

## SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information On Toxicological Effects**

**Acute Toxicity**: Not classified

**LD50 Oral Rat**: > 2000 mg/kg

**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

**Methyl Laurate (111-82-0)**

**Reproductive Toxicity**: Not classified

**Specific Target Organ Toxicity (Single Exposure)**: Not classified

**Specific Target Organ Toxicity (Repeated Exposure)**: Not classified

**Aspiration Hazard**: Not classified

**Potential Adverse Human Health Effects and Symptoms**: Based on available data, the classification criteria are not met.

**Symptoms/Injuries After Inhalation**: Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact**: Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact**: May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion**: Ingestion may cause adverse effects.

## SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**

**Ecology - General**: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Methyl Laurate (111-82-0)**

**Dodecanoic acid, methyl ester (111-82-0)**

**LC50 Fish 1**: > 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Methyl Laurate
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.23 mg/l</td>
</tr>
<tr>
<td>NOEC chronic crustacea</td>
<td>0.081 mg/l</td>
</tr>
<tr>
<td>NOEC chronic algae</td>
<td>0.04 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and Degradability
Methyl Laurate (111-82-0)
 Persistence and Degradability May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential
Methyl Laurate (111-82-0)
 Bioaccumulative Potential Not established.
Dodecanoic acid, methyl ester (111-82-0)
 Log Pow 6.02

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects
Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.
Ecology – Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION
In Accordance With ICAO/IATA/IMDG/DOT
14.1. UN Number
UN-No.(DOT) : 3082
DOT NA no. UN3082
14.2. UN Proper Shipping Name
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Transport hazard class(es) (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard Labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)

DOT Symbols : G - Identifies PSN requiring a technical name
Packing Group (DOT) : III - Minor Danger
DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description “Other regulated substances, liquid or solid, n.o.s.”, as appropriate. In addition, for solid materials, special provision B54 applies.

146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

173 - An appropriate generic entry may be used for this material.

335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as “Environmentally hazardous substances, solid, n.o.s.” UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.275(d)(2) Normal................ 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

Marine pollutant : P

14.3. Additional Information

Emergency Response Guide (ERG) Number : 171

Other information : No supplementary information available.

Transport by Sea

DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

EmS-No. (1) : F-A

EmS-No. (2) : S-F

Air Transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75) : No limit
SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Dodecanoic acid, methyl ester (111-82-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations Neither this product nor its chemical components appear on any US state lists.

SECTION 16: OTHER INFORMATION

Revision Date : 10/23/2015
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>Aquatic Acute 1</th>
<th>Hazardous to the aquatic environment - Acute Hazard Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 2</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

The data herein are based on our current knowledge and believed to be reliable. Acme-Hardesty Co., provides this information without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

Users must make their own determination that handling, storage, use and disposal of the product in the anticipated manner is safe and appropriate. Because these actions of the user are out of our control, and may be beyond our knowledge, we do not assume responsibility and expressly disclaim liability for loss, damage, expense or any other claim arising out of or in any way connected with the handling, storage, use or disposal of the product or container.

ACME Hardesty US GHS SDS