SAFETY DATA SHEET

Product Name: LocoClean 100

SDS No.: 4011
Issue Date: 3/27/2015
Version No.: 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: LocoClean 100
Description: Concentrate, General Purpose, Heavy-Duty Cleaner/Degreaser
Product Code: LC100
Suggested Use: Cleaner/Degreaser, Locomotives, Engines, shop floors, etc.
Restrictions on Use: Do not use on hard floors in hallways, kitchens or bathrooms, except for spot-cleaning.
Supplier: Additive Technologies, LLC
1515 West 2200 South, Suite C
Salt Lake City, Utah 84119 USA
Telephone: (801) 972-0732
Fax: (801) 340-0217
Email: sds@additivetech.com SDS on-line: www.additivetech.com
Emergency Phone: CHEMTREC 1-800-424-9300
International 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification
GHS Classification: Skin Irritation (Category 2)
Eye Irritation (Category 2)

GHS Label Elements
Pictogram:
Signal Word: Warning

Hazard Statements:
H315: Causes skin irritation
H320: Causes eye irritation

Precautionary Statements:
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/ eye protection/ face protection.
P302+P352: IF ON SKIN: was with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.
HMIS Classification: Health Hazard: 1  
Flammability: 0  
Physical Hazards: 0  

NFPA Rating: Health Hazard: 1  
Fire: 0  
Reactivity Hazard: 0  

Potential Health Effects
Inhalation: Vapors may be harmful if inhaled. Unlikely to cause serious injury.
Skin: May cause skin irritation.
Eyes: Causes eye irritation.
Ingestion: May cause irritation to mouth, throat, and stomach. Do not ingest.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>&lt;3%</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Proprietary, Non-Hazardous Surfactant Blend</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Balance</td>
</tr>
</tbody>
</table>

Synonyms: N/A

4. FIRST AID MEASURES

If Inhaled: If inhaled, move person into fresh air. If not breathing, give artificial respiration and seek emergency medical attention. Consult a physician.
Skin Contact: If irritated, take off contaminated clothing and shoes immediately. Flush skin with plenty of water for at least fifteen minutes. If irritation persists, consult a physician.
Eye Contact: If irritated, flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if able to do so. If irritation persists, consult a physician. Continue rinsing eyes during transport to hospital.
If Ingested: Do NOT induce vomiting unless instructed to do so by a physician. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Flammability Overview: Considered a non-flammable water solution.
Flash Point: N/A
Extinguishing Media: Use water-spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Tailor extinguishing media to surrounding fire.
Special Protective Equipment for Firefighters: Wear a self-contained breathing apparatus (SCBA) for firefighting if necessary.
Hazardous Combustion Products: Under fire conditions: Mostly Carbon Oxides

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Always ensure adequate ventilation.
Environmental Precautions: Prevent further leakage or spillage if safe to do so. Prevent from entering drains and waterways. Discharge into the environment must be avoided.
Containment and Clean Up: Soak up with inert absorbent material and dispose of. Keep in suitable, closed containers for disposal. If assistance is needed call CHEMTREC or emergency services.
7. HANDLING AND STORAGE

Safe Handling: Use personal protective equipment. Always ensure adequate ventilation.

Safe Storage: Keep containers tightly closed in a dry well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Exposure Limit</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>3ppm (7.5 mg/m³)</td>
<td>ACGIH TLV (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3ppm (6 mg/m³)</td>
<td>OSHA PEL (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3ppm (8 mg/m³)</td>
<td>NIOSH REL (TWA)</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>2 mg/m³</td>
<td>ACGIH TLV (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 mg/m³</td>
<td>OSHA PEL (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 mg/m³</td>
<td>NIOSH REL (TWA)</td>
</tr>
</tbody>
</table>

Personal Protective Equipment

Eye Protection: Tightly fitting safety goggles or safety glasses should be sufficient. Have eye-wash stations available where eye contact can occur.

Hand Protection: Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Wash and dry hands after use.

Skin Protection: Wear a chemical apron or other protective clothing to prevent skin contact. Safety showers should be located in the work area where skin contact can occur.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a NIOSH-approved full face respirator with appropriate cartridges.

General Controls: Always ensure adequate ventilation and that working areas contain safety showers and eye wash stations. Handle material in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Clear very light yellow liquid (no dye) or Purple (with dye)
Odor: Slight, Soap-like
Odor Threshold: N/A
pH: 12.0–12.5
Melting/Freezing Point: -2°C (28°F)
Boiling Point: 102°C (216°F)
Flash Point: None
Evaporation Rate: N/A
Flammability (solid, gas): N/A
Flammability/Explosion Limits: N/A
Vapor Pressure @ 20°C: 25 mmHg
Vapor Density: <1 (air=1)
Specific Gravity: 1.025–1.035
Density: 8.54–8.63 lbs/gal
Solubility in Water: Complete
Partition Coefficient: N/A
Autoignition Temperature: N/A
Decomposition Temperature: N/A
Viscosity: <100 cPs
10. STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.

Conditions and Materials to Avoid: Strong Oxidizing Agents. Strong Acids.

Hazardous Decomposition Products: Hazardous decomposition products under fire conditions: Mostly Carbon Oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Test</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LocoClean 100</td>
<td>Mixture</td>
<td>Oral LD50 (Rat)</td>
<td>&gt;5000 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dermal LD50 (Rabbit)</td>
<td>&gt;5000 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhalation LC50</td>
<td>No data available</td>
</tr>
</tbody>
</table>

*Based on component data

Potential Health Effects

Inhalation: Vapors may be harmful if inhaled. Unlikely to cause serious injury.

Skin: May cause skin irritation.

Eyes: Causes eye irritation.

Ingestion: May cause irritation to mouth, throat, and stomach. Do not ingest.

Signs and Symptoms of Exposure: Irritation.

Chronic Effects of Long-term Exposure: No data available

Carcinogenicity: No known components of this product at levels greater than 0.1% are identified as carcinogenic by IARC, ACGIH, or OSHA.

12. ECOLOGICAL INFORMATION

Acute Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Organism</th>
<th>Ecotoxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LocoClean 100</td>
<td>Mixture</td>
<td>Aquatic Invertebrate</td>
<td>48 hr LC50 = &gt;500 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Microorganisms</td>
<td>NOEC = &gt;1000 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish</td>
<td>96 hr LC50 = &gt;500 mg/L</td>
</tr>
</tbody>
</table>

*Based on component data

Ecological Effects

Persistence and Degradability: Biodegradable

Bioaccumulation Potential: Not expected to bio-accumulate

Mobility in Soil: No data available

Other Adverse Effects: No data available
13. DISPOSAL CONSIDERATIONS

Disposal: Material should be disposed in accordance with all local, state, and federal regulations. Regulations vary by region.

Contaminated Packaging: Dispose of same as unused product.

14. TRANSPORT INFORMATION

DOT Information

Proper Shipping Name: N/A
UN Number: N/A
Hazard Class: N/A
Packing Group: N/A
Reportable Quantity (RQ): N/A
Marine Pollutant: N/A

Note: Not regulated for transport.

15. REGULATORY INFORMATION

US Federal

SARA 302 Components: None Listed
SARA 311/312 Hazards: Acute Health Hazard
SARA 313 Components: None Listed

TSCA Inventory: All chemicals listed

European Union

EC Inventory: All chemicals listed

State Regulations

CA Prop 65: No chemicals listed

16. OTHER INFORMATION

SDS Version: 1.0
Revisions: New to GHS
Supersedes: MSDS Ver. 4.0, Previous MSDS Version date: 01/01/2010

The information contained in this document was carefully compiled and is believed to be accurate. The information represents the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. However, it does not represent any guarantee of the properties of the product. Norman, Fox & Co. shall not be held liable for any damages resulting from handling or from contact with the above product. It is the responsibility of the purchaser to determine the suitability of the product for their particular purposes. Nothing contained herein shall be construed to be a recommendation to use, or as a license to operate under, or to infringe any existing patents.

For product information or to re-order, call Additive Technologies, LLC 1-800-513-4959