### TRADE NAME
LAURYL ALCOHOL ETHOXYLATE (2 MOLE)

### CAS#
68439-50-9

### EINECS#
500-213-3

### DATE
December 1, 2009

### DISTRIBUTOR
ACME-HARDESTY COMPANY

### ADDRESS
450 Sentry Parkway
Blue Bell, PA 19422

### TELEPHONE
(800) 223 - 7054

### FAX
(215) 591 – 3620

### EMERGENCY
CHEMTREC (800) 424-9300

### COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INFORMATION ON HAZARDOUS INGREDIENTS:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHEMICAL NAME:</strong> Lauryl Alcohol Ethoxylate</td>
</tr>
<tr>
<td><strong>% COMPOUND:</strong> ~ 100</td>
</tr>
<tr>
<td><strong>CAS#:</strong> 68439-50-9</td>
</tr>
<tr>
<td><strong>EINECS #:</strong> 500-213-3</td>
</tr>
</tbody>
</table>

### HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<table>
<thead>
<tr>
<th>ENVIRONMENTAL HAZARDS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very toxic to aquatic organisms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HUMAN HEALTH HAZARDS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>Risk of serious damage to eyes</td>
</tr>
</tbody>
</table>

### FIRST AID MEASURES

<table>
<thead>
<tr>
<th>EFFECT AND SYMPTOMS:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INGESTION:</strong> Harmful if ingested. Causes irritation.</td>
</tr>
<tr>
<td><strong>INHALATION:</strong> Inhalation does not cause problems.</td>
</tr>
<tr>
<td><strong>SKIN CONTACT:</strong> May cause irritation.</td>
</tr>
<tr>
<td><strong>EYE CONTACT:</strong> Irritating.</td>
</tr>
</tbody>
</table>

**FIRST AID MEASURES:**

<table>
<thead>
<tr>
<th><strong>INGESTION:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Induce vomiting and seek medical attention.</td>
</tr>
<tr>
<td><strong>INHALATION:</strong></td>
</tr>
<tr>
<td>If difficulties occur after vapor/aerosol has been inhaled, remove to fresh air and seek medical attention</td>
</tr>
<tr>
<td><strong>SKIN CONTACT:</strong></td>
</tr>
<tr>
<td>Flush with water for at least 15 minutes.</td>
</tr>
<tr>
<td><strong>EYE CONTACT:</strong></td>
</tr>
<tr>
<td>Flush with water for at least 15 minutes. Consult eye specialist.</td>
</tr>
</tbody>
</table>
FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

- **SUITABLE:** Water, dry extinguishing media, foam, carbon dioxide.
- **NOT SUITABLE:** Not applicable

SPECIAL FIRE FIGHTING PROCEDURES:
Wear protective equipment and self contained breathing apparatus.

UNUSUAL FIRE/EXPLOSION HAZARDS:
In case of fire, harmful vapors may be released

PROTECTION OF FIREFIGHTERS:
As in special fire fighting procedures given above

HAZARDOUS THERMAL DECOMP. PROD:
Does not occur

OTHER INFORMATION:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
Use personal protective equipments (PPE). Avoid contact with skin, eyes and clothing.

METHOD OF CLEANING UP:
Flush spill with water for minor spills. For large spillage collect the product. Residues can be removed by using suitable absorbent material. Dispose the absorbed material in accordance with regulations.

ENVIRONMENTAL PRECAUTIONS:
Contain contaminated water/ fire fighting water. Do not discharge into drains / surface water / ground water.

HANDLING AND STORAGE

HANDLING:
Avoid contact with eyes, open cuts. Wash thoroughly after handling. Keep away from food, domestic water supplies.

STORAGE:
Keep in close container. Product can absorb moisture if exposed to atmosphere. Store at 30-40°C. If stored at 6°C for a longer time, it becomes a hazy white semi-solid. Warm it before use. Prolonged storage may show settling of salt at the bottom. Mix the product before use.

SUITABLE PACKING MATERIALS: HDPE drums/ epoxy coated (Lacquer) MS drums. Keep container tightly closed.

NOT SUITABLE PACKING MATERIALS: Not applicable

EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY SYSTEM PROTECTION:
None required, when adequate ventilation is available. If airborne concentration is high, use a mask or respirator.

SKIN AND BODY PROTECTION:
Uniform, apron, protective boots

HAND PROTECTION:
Rubber gloves

EYE PROTECTION:
Safety goggles and face shield
STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, flame and other sources of ignition.
MATERIALS TO AVOID: Do not subject to acidic pH / moisture strong acids and oxidizing agents.
HAZARDOUS DECOMP PROD: Will not occur

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid with tendency to show settling
COLOR: Colorless to pale yellow
ODOR: Characteristic
pH (1% Aqueous Solution): 6.0 – 8.0
E.O. Mole No.: 2
HLB VALUE: 6 – 7
FLASH POINT, °C: 162°C
SOLIDIFICATION POINT, °C: 6– 10°C
POUR POINT°C: 6°C
DENSITY @ 20°C g/ml: 0.8870- 0.8930
SOLUBILITY WATER: Insoluble in water

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
ORAL (LD50) (Rat): >700 mg/kg
DERMAL (LD50) Rabbit): 2000mg/kg
INHALATION (LC50): Not available

SKIN IRRITATION: Moderate Irritation
EYE IRRITATION: Severe Irritation
SENSITIZATION: Non-sensitizing
CHRONIC TOXICITY: None identified.
CARCINOGENICITY: Not carcinogenic

ECOLOGICAL INFORMATION

ECOTOXICITY: Very toxic to aquatic animals

DISPOSAL CONSIDERATIONS

METHODS OF DISPOSAL: In accordance with local, federal, and state environmental regulations.
TRANSPORT INFORMATION

LAND TRANSPORT:

ADR:
- Class 9
- Packaging group III
- UN-number 3082
- Designation of goods - Environmentally Hazardous Substance, Liquid, N.O.S.

RID:
- Class 9
- Packaging group III
- UN-number 3082
- Designation of goods - Environmentally Hazardous Substance, Liquid, N.O.S.

INLAND WATERWAY TRANSPORT:

ADNR:
- Class 9
- Packaging group III
- UN-number 3082
- Designation of goods - Environmentally Hazardous Substance, Liquid, N.O.S.

SEA TRANSPORT:

IMDG/GGV:
- Class 9
- Packaging group III
- UN-number 3082
- Designation of goods - Environmentally Hazardous Substance, Liquid, N.O.S.

AIR TRANSPORT:

ICAO/IATA:
- Class 9
- Packaging group III
- UN-number 3082
- Designation of goods - Environmentally Hazardous Substance, Liquid, N.O.S.

REGULATORY INFORMATION

INVENTORIES:
- PICCS (Philippines),
- JCSCL - Existing / New Chemical Substances (Japan),
- KECL (Korea),
- DSL (Canada),
- AICS (Australia),
- TSCA (US),
- EU- NLP (EU0, CIECS (China)

LABEL NAME:
- Lauryl Alcohol Ethoxylate

HAZARD SYMBOL(S):
- Xn - Harmful
- N - Dangerous for the environment

R-PHRASE(S):
- R22 – Harmful, if swallowed.
- R41 - Risk of serious damage to eyes
- R50 - Very toxic to aquatic organisms

S-PHRASE(S):
- S39 - Wear eye/face protection
- S26 - In case of eye contact, rinse immediately with plenty of water; seek medical advice
- S61 - Avoid release to the environment. Refer to special instructions / safety data sheet
ADDITIONAL INFORMATION

Product may contain trace amounts of ethylene oxide (< 1ppm) which may get accumulated in the headspace of filled containers.

Ethylene Oxide is listed as a human carcinogen/potential human carcinogen in OSHA, NTP, IARC.


User should take precautions while handling the product to avoid exposure.

OSHA EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>OSHA ACTION LEVEL:</th>
<th>0.5 ppm for 8hr TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA PERMISSIBLE EXPOSURE LIMIT:</td>
<td>1 ppm for 8 hr TWA</td>
</tr>
<tr>
<td>OSHA EXCURSION LIMIT:</td>
<td>5ppm for 15minutes</td>
</tr>
</tbody>
</table>