Material Safety Data Sheet

PRODUCT NAME: AHCOHOL 1216

CHEMICAL PRODUCT AND DISTRIBUTOR IDENTIFICATION

<table>
<thead>
<tr>
<th>TRADE NAME:</th>
<th>AHCOHOL 1216</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS #:</td>
<td>68855-56-1</td>
</tr>
<tr>
<td>EINECS#:</td>
<td>272-490-6</td>
</tr>
<tr>
<td>DATE:</td>
<td>March 10, 2008</td>
</tr>
<tr>
<td>DISTRIBUTOR:</td>
<td>ACME-HARDESTY COMPANY</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>450 Sentry Parkway</td>
</tr>
<tr>
<td></td>
<td>Blue Bell, PA 19422</td>
</tr>
<tr>
<td>TELEPHONE:</td>
<td>(866) 226 – 3834</td>
</tr>
<tr>
<td>FAX:</td>
<td>(215) 591 – 3620</td>
</tr>
<tr>
<td>EMERGENCY:</td>
<td>CHEMTREC (800) 424-9300</td>
</tr>
</tbody>
</table>

COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>CAS#</th>
<th>Wt/Wt, %</th>
<th>EC#</th>
<th>EC SYMBOL</th>
<th>EC R-PHRASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol, C10-16</td>
<td>68855-56-1</td>
<td>100%</td>
<td>272-490-6</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

MOLECULAR FORMULA: CnH2n+2O
SYNONYMS: Lauryl Myristyl Alcohol, Lauryl Cetyl Alcohol, Linear Primary Alcohol Mixture, Fatty alcohol C1216, Alcohol C1216 and Alcohol, C12-16

HAZARDS IDENTIFICATION

This product is classified as N (Dangerous for the environment), R 50 (Very toxic to aquatic organisms).

PHYSICAL AND CHEMICAL PROPERTIES

FORM: Colorless liquid to white waxy solid
ODOR: Mild fatty odor
pH: Not Applicable
VISCOSITY DYNAMIC at 40°C (104°F): 11 - 13 mPa.s
MELTING POINT / MELTING RANGE: 17 – 21°C (63 – 70°F)
BOILING POINT / BOILING RANGE (at 760 mm Hg): 268 – 311°C (514 – 592°F)
VAPOR PRESSURE: < 0.1 mm Hg @ 20°C
SOLUBILITY IN WATER: Negligible
DENSITY: 0.823g/cm³ @ 35/35°C (95/95°F)
EXPLOSIVE LIMIT, VOL% IN AIR: ~ 0.5 – 5.1 %
MOLECULAR WEIGHT: 195.30
STABILITY AND REACTIVITY

CONDITIONS TO BE AVOIDED: Strong heating. It decomposes when heated.
HAZARDOUS DECOMPOSITION PRODUCTS: None. Complete combustion forms carbon dioxide and water.
HAZARDOUS REACTIONS: React with strong acids, strong oxidizing agents.

FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon dioxide, foam, powder.
SPECIAL RISKS: Combustible
Vapor heavier than air
Forms explosive mixtures with air on intense heating
Development of hazardous combustion gases or vapors possible in the event of fire
FLASH POINT: 129 – 141°C (264 – 289°F) PMCC
AUTO IGNITION TEMPERATURE: 250 – 260°C (482 – 500°F)

FIRST AID MEASURES

SKIN CONTACT: Wash off with plenty of water. Remove contaminated clothing and shoes.
EYE CONTACT: Rinse with plenty of water for at least 20 minutes with the eyelid held wide open.
INGESTION: Immediately make victim drink plenty of water. Consult doctor if feeling unwell.
INHALATION: Move victim to fresh air.

ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK: Avoid generation of dusts.
Do not inhale dusts.
Take up dry.
Forward for disposal.
Clean up affected area.

HANDLING AND STORAGE

HANDLING: To use gloves and wear goggles when handling.
For bulk handling, ensure all equipment is electrically grounded before beginning of transfer operation.

STORAGE/TRANSPORT PRESSURE: Ambient
LOAD/UNLOAD TEMPERATURE: 31 – 36°C (88 - 97°F)

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT: No exposure limits have been established for this product.
PERSONAL PROTECTIVE EQUIPMENT: Wear protective goggles and/or face shield and rubber gloves.
INDUSTRIAL HYGIENE: Normal standards of industrial hygiene been observed.
EXPOSURE CONTROLS / PERSONAL PROTECTION, cont.

SKIN PROTECTION: Not applicable
GENERAL PROTECTIVE MEASURES: Avoid contact with eyes and skin. Do not inhale dust.
HYGIENE MEASURES: Wash hands before breaks and after work. Use barrier skin cream.

TOXICOLOGICAL INFORMATION

TOXICITY DATA: Not listed by WHO Acute Hazard, TRI Acute Hazard.

1-Dodecanol
LD$_{50}$ (oral, rat) = > 5000 mg/kg (OECD401)
WHO Acute Hazard: Unlikely to present acute hazard in normal use.

1-Tetradecanol, 1-Hexadecanol
LD$_{50}$ (oral, rat) = > 2000 mg/kg (OECD 401)
WHO Acute Hazard: Unlikely to present acute hazard in normal use.

For 1-Dodecanol (CAS 112-53-8), Tetradecanol (112-72-1) and Hexadecanol (CAS 36653-82-4)
CARCINOGENICITY: Not listed by IARC Carcinogen, U.S. NTP Carcinogens, CA Prop 65 Known Carcinogens, U.S. EPA Carcinogen, TRI Carcinogen
CHOLINESTERASE INHIBITOR: No
DEVELOPMENTAL OR: Not listed by CA Prop 65 Development Toxic, U.S. TRI Development Toxic
REPRODUCTIVE TOXIN: Toxic, CA Prop 65 Female Reproductive Toxin, CA 65 Male Reproductive Toxin, U.S. TRI Reproductive Toxin
ENDOCRINE DISRUPTION: Not listed by Illinois EPA list, Keith list, Colborn list, Benbrook list, EU list.

ECOLOGICAL INFORMATION

BIODEGRADATION: Readily biodegradability.
1-Dodecanol, 86% in 30 days (OECD 301E)
1-Tetradecanol, > 60% in 28 days (OECD 301D)
1-Hexadecanol, > 60% in 28 days (OECD 301D)

BIOLOGICAL EFFECTS: Green algae Toxic Average Species LC50 = 50 µg/L

AQUATIC TOXICITY: Not expected to show any detectable aquatic toxicity even in saturated solutions because of it’s extremely low water solubility.
Fathead minnow, Average Species LC50 = 500,000 µg/L
Silver salmon, Average Species LC50 = 10,000 µg/L

DISPOSAL CONSIDERATIONS

Disposal method should be in accordance with local, state, national environment laws and regulations.
Do not let this chemical enter environment.
TRANSPORT INFORMATION

U.S. DOT DESCRIPTION: Not classified as dangerous good in transport.
ICAO/IATA DESCRIPTION: Not classified as dangerous good in transport.
IMDG DESCRIPTION: Not classified as dangerous good in transport.
IMO TECHNICAL NAME, CAT. & SHIP TYPE: Alcohols (C12-C13), Cat. Y, Ship Type 2.

REGULATORY INFORMATION

US REGULATORY STATUS

U.S. EPA Registered: No
U.S. EPA Minimum Risk Pesticide (25b list): No
TSCA Inventory Listing:

1-Dodecanol CAS No. 112-53-8
1-Tetradecanol CAS No. 112-72-1
1-Hexadecanol CAS No. 36653-82-4

SARA 311/312 Classification: Non hazardous
CERCLA Section 102a/103 (40 CFR 302.4): Not Listed
SARA Title III Section 302 (40 CFR 355.30): Not Listed
SARA Title III Section 313 (40 CFR 372.65): Not Listed
OSHA Classification: Non hazardous

CANADA REGULATORY STATUS

Workplace Hazardous Materials Information System (WHMIS) This material is not a controlled product as defined by WHMIS Classification.
Canadian Domestic Substance List (DSL) Inventory Listing Yes

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 and use 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.

Disposal of containers must comply with applicable federal, state and local laws and regulations. Empty containers should never be given to individuals.