MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BiLUBE® 8211
PRODUCT NUMBER: 1376L
CHEMICAL NAME: Bismuth 2-ethylhexanoate mixture
DATE PREPARED: 04-Jan-12

MANUFACTURER:
The Shepherd Chemical Company
4900 Beech Street
Cincinnati, Ohio 45212
(513)-731-1110 (voice), (513)-731-1532 (fax)

EMERGENCY TELEPHONE NO. 1-800-424-9300 CHEMTREC

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL INGREDIENT</th>
<th>C.A.S. NUMBER</th>
<th>% BY WEIGHT</th>
<th>% METAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bismuth 2-ethylhexanoate</td>
<td>67874-71-9</td>
<td>80-90</td>
<td>28 Bi</td>
</tr>
<tr>
<td>2-Ethylhexanoic Acid</td>
<td>149-57-5</td>
<td>10-20</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARD IDENTIFICATION

APPEARANCE: Brown liquid
ODOR: No odor

WARNING! CAUSES IRRITATION. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPORS OR MIST. WASH THOROUGHLY AFTER HANDLING.

POTENTIAL HEALTH EFFECTS, TARGET ORGAN EFFECTS (ACUTE AND CHRONIC)
This product causes eye and skin irritation and may cause upper respiratory tract irritation. If absorbed, bismuth compounds may affect the kidneys.
CARCINOGENICITY: Not applicable

SECTION 4 - FIRST AID MEASURES
If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. If swallowed, do not induce vomiting. Keep person warm. Call a physician immediately. Never give anything by mouth to an unconscious person. In case of contact, immediately flush skin and eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES
FLASHPOINT/METHOD: >256° F (PMcc)
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: CO2, Foam, Dry Chemical or Water Spray.
SPECIAL FIREFIGHTING PROCEDURES: Use Self-Contained Breathing-Apparatus.
FIRE AND EXPLOSION HAZARD:
Moderate when exposed to extreme heat or flame.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
Remove ignition sources. Ventilate area of spill. Do not allow to enter confined spaces such as sewers. Absorb in vermiculite, dry sand, earth or similar material.

SECTION 7- HANDLING AND STORAGE
Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Store in closed containers away from extreme heat, flame or strong oxidizing agents.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators if OSHA PEL is exceeded.
SKIN PROTECTION: Use impervious glove and body-covering clothing.
EYE PROTECTION: Use side-shielded safety glasses or goggles.
ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation.

CHEMICAL INGREDIENT | OSHA PEL (mg/M3) | ACGIH TLV (mg/M3)
---------------------|-----------------|------------------
2-Ethylhexanoic Acid | N/A             | 5                
Bismuth 2-ethylhexanoate | N/A         | N/A              

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE: Brown liquid
ODOR: No odor
BOILING POINT: >227 °F (2-ethyl.)
VAPOR PRESSURE (mm HG): <0.01 (2-ethyl.)
VAPOR DENSITY (Air = 1): 5.0 (2-ethyl.)
SOLUBILITY IN WATER: Negligible
SPECIFIC GRAVITY / DENSITY: 1.30
FREEZING POINT: -181° F (2-ethyl.)
pH: Not available
EVAPORATION RATE: <0.01 (2-ethyl.)

SECTION 10 - STABILITY AND REACTIVITY
STABILITY: This product is stable. Hazardous polymerization will not occur.
INCOMPATIBILITY: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION BY PRODUCTS:
Thermal decomposition may produce carbon monoxide.

SECTION 11- TOXICOLOGICAL INFORMATION
None found for this product.

SECTION 12- ECOLOGICAL INFORMATION
Not available

SECTION 13 - DISPOSAL CONSIDERATION
Liquid incineration or dispose of contaminated absorbent/stabilizing agent in an approved landfill. Observe local, state and federal regulations.

SECTION 14 - TRANSPORT INFORMATION
This product is not regulated for transportation.  
(Chemical, n.o.i.)

**SECTION 15 - REGULATORY INFORMATION**

**OSHA HAZARD COMMUNICATION STANDARD:**
Hazardous due to target organ effects (See Section 3)

**CERCLA/SUPERFUND:**
N/A

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):**
Section 311/312 Hazard Categories: Acute Health Hazard

**TOXIC SUBSTANCES CONTROL ACT (TSCA):**
All components of this product are on the TSCA Inventory unless otherwise noted in Section 2.

**INTERNATIONAL REGULATIONS:**
Registered in Australia (AICS), Canada (DSL), China (IECSC), Europe (EINECS), Japan (ENCS), and Philippines (PICCS)

Canada WHMIS Classification: D2B Toxic

**SECTION 16 - OTHER INFORMATION**

**REFERENCES:**
Material Safety Data Sheet, 2-Ethylhexanoic acid, Vendor

**HMIS RATING:**
Health - 2  
Flammability - 1  
Reactivity - 0  
Personal Protection - B

**DISCLAIMER:**
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