1. Product and Company Identification

Product Name

Protelan LS 9011 – US

Product CAS Number (if applicable)

Mixture

Product Type, Usage, or Industry

Anionic surfactant for manufacture of detergents, cosmetics, fiber auxiliaries and household products.

Company Information

Zschimmer and Schwarz, Inc.
70 GA Hwy. 22 W
Milledgeville, GA 31061

Emergency Contact

Company: (478) 454-1942
CHEMTREC: (800) 424-9300

2. Hazardous Composition and Information

This section contains hazardous components which comprise 1.0% or more of the formula; carcinogens are listed at 0.1% or greater.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Material or component</th>
<th>Avg % weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>137-16-6</td>
<td>Sodium Lauroyl Sarcosinate</td>
<td>~ 30%</td>
</tr>
</tbody>
</table>

This is not intended to be a complete compositional disclosure. Information provided pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. Hazards identification

HMIS Rating:

Health: 1  Fire: 0  Reactivity: 0  PPE: C

Primary routes of exposure:

Eyes: Causes eye irritation.
Skin: May cause irritation upon prolonged or repeated contact.
Inhalation: At high temperatures, mist or vapors may cause respiratory irritation.
Ingestion: May cause gastrointestinal tract irritation, nausea, vomiting, diarrhea.
4. First Aid Measures

Eyes:  
Flush with copious amounts of water for 15 min, spreading eyelids apart for maximum effectiveness. If irritation persists, consult a physician.

Skin:  
Wash affected area with soap and water. If itching or redness develops, seek medical attention. Contaminated clothing should be removed immediately and washed before reuse. Contaminated shoes should be discarded.

Inhalation:  
Move the person to fresh air. If breathing becomes difficult, contact a physician.

Ingestion:  
Do not induce vomiting. Rinse mouth with plenty of water. If vomiting occurs spontaneously, keep airway clear. Get immediate medical attention.

5. Firefighting Measures

Flammable limits:  
LeL: N/D  
Uel: N/D

Suitable extinguishing media: 
alcohol-resistant foam; dry powder; CO₂

Special protective equipment for firefighters:  
Self-contained breathing apparatus and protective clothing when fighting any chemical fire.

Unusual fire & explosion Hazards:  
In case of fire, may emit CO₂ and NOₓ. Cool fire exposed containers with water spray.

6. Accidental Release Measures

Personal precautions:  
Avoid contact with eyes and skin. Do not inhale vapors. Product is slippery. Avoid falls. Keep unnecessary personnel away.

Environmental precautions:  
Limit leakage with earth or sand. Do not discharge into the drains/surface water/ground water. Dispose of absorbed material in accordance with local, state and federal regulations.

Methods for cleaning up/taking up  
Take up with absorbent material. (e.g. earth or sand.) Dispose of absorbed material in accordance with local, state, and federal regulations. After cleaning, trace amounts may be flushed away with water.
7. Handling and Storage

Advice on safe handling
Keep container closed. Avoid getting on skin or in eyes when handling product. Otherwise, no special measures necessary.

Advice on protection against fire and explosion
No special measures necessary.

Requirements for storage rooms and vessels
Protect from frost. Store in cool dry places between 50°F (10°C) and 95°F (35°C) in a tightly sealed container.

8. Exposure Controls and Personal Protective Equipment

Component with OSHA exposure limits to be monitored

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Description of substance</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General protective measures / hygiene measures:
Observe the usual precautions when handling chemicals.

Hand protection: Use impervious gloves
Eye protection: Safety glasses with side shields
Respiratory protection: None needed under normal conditions.
Skin protection: Protective clothing
Ventilation: Recommended.
Local Exhaust: Recommended.
Other Protective Equipment: Eye-wash station

9. Physical and Chemical Characteristics

Form and Appearance: Clear, colorless to yellow liquid
Odor: Characteristic
Boiling point: > 212°F (100°C)
Freezing point: ~ 32°F (0°C)
pH: ~ 7.5 @ 10%
Specific gravity/Bulk Density: ~ 1.01
Flash point: N/A
Viscosity: N/D
Solubility in water: Soluble
Vapor pressure: N/D
10. Stability and Reactivity

Chemical stability: Product is stable under ordinary conditions of use and storage.
Conditions to avoid: Avoid exposure to extreme heat / ignition sources.
Incompatibility: None known.
Hazardous decomposition products: Under fire conditions, may emit CO_x and NO_x.
Hazardous polymerization: Will not occur.

11. Toxicological Information

Acute Toxicity:
Eyes: Eye irritant.
Ingestion: LD50 (rat): > 2,000 mg/kg
Skin: May cause mild irritation upon prolonged or repeated contact.

Chronic Health Effects: None.

12. Ecological Information

Ecotoxicity: LC50 (Rainbow trout): 56 mg/L, 96h
EC50 (Daphnia magna): > 1mg/L

Environmental fate: The product is readily biodegradable.

13. Disposal Considerations

Dispose of absorbed material in accordance with local, state, and federal regulations.

14. Transport Regulations

DOT Regulations:

Proper Shipping Name: Not regulated.
Hazard Class: Not regulated.
UN Number: Not regulated.
Packing Group: Not regulated.
Label Required: Not regulated.
15. Regulatory Information

Contents of this MSDS comply with the OSHA standard 29 CFR 1910.1200.
TSCA Status: All the components in this material are listed under TSCA inventory.

EPA SARA Title 302: None.
EPA Section 304 CERCLA Hazardous substance: None
EPA Section 311/312 Hazard Categorization:

<table>
<thead>
<tr>
<th>Acute</th>
<th>Chronic</th>
<th>Fire</th>
<th>Pressure</th>
<th>Reactive</th>
<th>None</th>
</tr>
</thead>
</table>

EPA Section 313 Toxic chemicals: None
State hazardous information: None

16. Additional Information

This information is based on our present state of knowledge. It should not be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Existing acts and regulations must be observed by the recipient of our products under their own responsibility.