### 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CALSOFT® AOS-40</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCI Name</td>
<td>Sodium C14-16 Olefin Sulfonate</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Pilot Chemical Corporation</td>
</tr>
<tr>
<td>Supplier:</td>
<td>Chemical Store Inc. (<a href="http://www.ChemicalStore.com">www.ChemicalStore.com</a>)</td>
</tr>
<tr>
<td></td>
<td>1059 Main Avenue, Clifton, NJ 07011</td>
</tr>
<tr>
<td>Emergency Telephone Number</td>
<td>Chemical Store 973-420-4972</td>
</tr>
</tbody>
</table>

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>36-42</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride (NaCl)</td>
<td>7647-14-5</td>
<td>&lt;1</td>
<td>-</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>7757-82-6</td>
<td>&lt;1</td>
<td>-</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>56-64</td>
<td>-</td>
</tr>
</tbody>
</table>

### 3. HAZARDS IDENTIFICATION

**Emergency Overview**
Irritant

**Potential Health Effects**
- **Eyes**
  Contact with eyes may cause irritation.
- **Skin**
  Substance may cause slight skin irritation.
- **Inhalation**
  May cause irritation of respiratory tract.
- **Ingestion**
  Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic effects**
No information available

### 4. FIRST AID MEASURES

**Eye Contact**
Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

**Skin Contact**
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
If symptoms persist, call a physician.

**Inhalation**
Move to fresh air. If symptoms persist, call a physician.

**Ingestion**
Drink plenty of water. Do not induce vomiting without medical advice. Consult a physician.
5. FIRE-FIGHTING MEASURES

- Flammable Properties: Non-flammable water solution.
- Flammable Limits: Not Determined.
- SPECIAL FIRE FIGHTING PROCEDURES
  - Method: Water mist may be used to cool closed containers.
- Unusual Fire & Explosive Hazards: None

6. ACCIDENTAL RELEASES MEASURES

- Small Spillages: Recover all usable material. Soak up balance with sand or dirt. Material is slippery on wet or hard surfaces.
- Large Spillages: In case of a large spill by truck, use small spill procedure and a vacuum truck. Call CHEMTREC at 1-800-424-9300.

7. HANDLING AND STORAGE

- Handling: Wear personal protective equipment. Avoid contact with skin, eyes and clothing.
- Storage: Containers should be stored at temperatures between 50°F and 100°F.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures: Ensure adequate ventilation, especially in confined areas.
- Eye/Face Protection: Tightly fitting safety goggles. If splashes are likely to occur, wear: Face-shield.
- Skin Protection: Wear protective gloves/clothing.
- Respiratory Protection: No special protective equipment required, unless workers are exposed to concentrations above the exposure limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Boiling Point/Range: 100°C
- Vapor Pressure: 25 mm Hg @ 25°C
- Volatile Weight %: 56-64
- Water Solubility: Soluble in all proportions
- Specific Gravity: 1.05
- pH: 7-9
- Odor: Slight
- Appearance: Yellow Amber
- Physical State: Liquid
10. STABILITY AND REACTIVITY

Chemical Stability
Stable under normal conditions.

Unsuitable Materials
Strong oxidizing agents.

Conditions to Avoid
Strong oxidizers.

Hazardous Decomposition Products
None under normal use

Hazardous Polymerization
No information available

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LC50 Inhalation</th>
<th>LD50 Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>2310 mg/kg (Rat)</td>
<td>-</td>
<td>6300 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>10000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Eyes
Eye Irritation

Skin
Skin Irritation

Ingestion
Unknown

Inhalation
Unknown

Chronic Toxicity
No information available

Carcinogenicity
Product is not listed.

Hazard Type
Skin/Eye Irritant

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride (NaCl)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>EC50 = 1000 mg/L 48 h</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>EC50 = 2564 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EC50 = 4547 mg/L 96 h</td>
</tr>
</tbody>
</table>

Ecotoxicity effects
This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

Chemical Fate
Material is readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Dispose of contents/container in accordance with local regulation.
14. TRANSPORT INFORMATION

DOT Not regulated  
ICAO Not regulated  
IATA Not regulated  
IMDG/IMO Not regulated  
RID Not regulated  
ADR Not regulated  
ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>CHINA</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
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<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Water</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
</tbody>
</table>

USA

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard | Yes
Chronic Health Hazard | No
Fire Hazard | No
Sudden Release of Pressure Hazard | No
Reactive Hazard | No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any HAPs.

16. OTHER INFORMATION

Revision Date 08/17/2011
Prepared by David A. Pollard

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.