Material Safety Datasheet
Sodium C14-C16 Alpha Olefin Sulfonate

CALSOFT® AOS-40

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CALSOFT® AOS-40
INCI Name: Sodium C14-16 Olefin Sulfonate
Manufacturer: Pilot Chemical Corporation
Supplier: Chemical Store Inc. (www.ChemicalStore.com)
1059 Main Avenue, Clifton, NJ 07011
Emergency Telephone Number: Chemtrec 1-800-424-9300
Chemical Store Office: 1-973-405-6248

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.
Hazardous Combustion Products  Oxides of carbon and sulfur.

SPECIAL FIRE FIGHTING PROCEDURES
Method             Water mist may be used to cool closed containers.
Unusual Fire & Explosive Hazards  None

6. ACCIDENTAL RELEASE 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>
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</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 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>
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<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>-</td>
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<td>X</td>
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<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>
<td>X</td>
</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
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