Material Safety Data Sheet

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300

Section 1—Chemical Product and Company Identification

Product Name: Top Surf®
Common Name: Alkylpolyethoxyalkylene ethers and other ethoxylated derivatives
Chemical Description: Nonionic Surfactant

Manufacturer's Name: WINFIELD SOLUTIONS, LLC
P. O. Box 64589
St. Paul, MN 55164-0589

Medical Emergency Telephone Number: 1-877-424-7452
MSDS Revision Date: 5/27/2011

Section 2—Hazards Identification

Emergency Overview: Amber liquid with slight odor. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. Do not ingest. Do not get in eyes. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Wash thoroughly after handling. Product may cause oxygen deficiency in enclosed spaces; follow all OSHA regulations pertaining to confined space entry. See health effects below.

CAUTION: Keep out of reach of children.

Route(s) of Entry: Eyes, Inhalation, Skin, and Ingestion.

Health Hazards (Acute and Chronic):
Inhalation: Inhalation of mist may cause irritation of the upper respiratory tract.
Eyes: Irritation of eyes.
Skin: Contact may cause irritation. Prolonged or repeated exposure may lead to reddening of skin, rash, dermatitis, or other skin reactions.
Ingestion: Harmful if swallowed.

Medical Conditions Generally Aggravated by Exposure:
Preexisting respiratory conditions may be aggravated by exposure to mists.

Section 3—Composition Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>% (wt)</th>
<th>CAS reg. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, ethoxylated</td>
<td>10-90%</td>
<td>Mixture</td>
</tr>
<tr>
<td>Dinonylphenols, branched, ethoxylated</td>
<td>10-90%</td>
<td>68891-21-4</td>
</tr>
<tr>
<td>Water</td>
<td>10-90%</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Alcohols, ethoxylated, propoxylated</td>
<td>1-10%</td>
<td>68439-51-0</td>
</tr>
<tr>
<td>Amines, tallow alkyl, ethoxylated</td>
<td>1-10%</td>
<td>61791-26-2</td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>1-10%</td>
<td>25322-68-3</td>
</tr>
</tbody>
</table>

*Ingredients not specifically listed are non-hazardous and considered to be confidential business information.

NFPA HAZARD RATING:
0 Least
1 Slight 2 Health
2 Moderate 0 Flammability
3 High 0 Reactivity
4 Severe

Section 4—First Aid Measures

Inhalation: Remove person to fresh air and assist breathing as needed. Seek medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Eyes: Check for and remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelid. Get medical attention immediately.

Skin: Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with soap and water. Get medical attention immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.
Section 5—Fire and Explosion Hazard Data

Extinguishing Media: Materials suitable to surrounding fire.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components.
Hazardous Combustion Products: Toxic gases may be formed in a fire situation. Carbon monoxide, carbon dioxide, metal oxide/oxides and other asphyxiates may form as well.
Unusual Fire and Explosion Hazards: Closed containers may explode from vapor expansion in high heat. Contain run-off by diking to prevent contamination of water supplies.

Section 6—Accidental Release Measures

Small Spills: Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills should be cleaned up immediately to prevent spreading.
Large Spills: Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mist.
Containment: Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contain spills and absorb liquids by covering with clay or other absorbent material. Vacuum, scoop, or sweep up waste and place in a container for disposal.

Section 7—Precautions for Safe Handling and Use

Precautions to Be Taken in Handling and Storage: Store in original container protected from direct sunlight, in a dry, cool and well-ventilated area. Store away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage. Protect from freezing. Keep containers closed when not in use.
Other Precautions: Consult Local, State, and Federal regulations pertaining to storage and disposal.

Section 8—Control Measures/Personal Protection

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a properly FIT TESTED MSHA/NIOSH-approved respirator.
Ventilation: Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.
Protective Gloves: Wear chemically protective gloves.
Eye Protection: Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.
Other Protective Clothing or Equipment: Wear chemically protective boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.
Work/Hygienic Practices: Never eat, drink, nor smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9—Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1)</td>
<td>0.9-1.1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in Water (wt %)</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5-8</td>
</tr>
<tr>
<td>Appearance and odor</td>
<td>Amber liquid with slight odor</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200°F</td>
</tr>
</tbody>
</table>

Section 10—Reactivity Data

Stability: This product is stable. Under normal conditions of storage and use, hazardous reactions will not occur.
Chemical Incompatibilities: No data available
Conditions to Avoid: No specific data.
Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous Polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.
**Section 11—Toxicological Information**

- **Eye Effects:** Severely irritating to eyes. Risk of serious damage to eyes.
- **Skin Effects:** Dermal LD50 (rabbit, similar material)-1000-2000 mg/kg. Harmful in contact with skin. Irritating to skin.
- **Acute Inhalation Effects:** Irritating to respiratory system.
- **Acute Oral Effects:** Oral LD50 (rat, similar material)-500-2000 mg/kg. Harmful if swallowed.
- **Chronic Effects:** No known significant effects or critical hazards.
- **Mutagenicity:** No known significant effects or critical hazards.
- **Teratogenicity:** No known significant effects or critical hazards.
- **Carcinogenicity:** NTP: Not available IARC: Not available OSHA: Not available

**Section 12—Ecological Information**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities.

**Section 13—Disposal Considerations**

- **Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.
- **Container:** Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.
- **RCRA characteristics:** None known

**Section 14—Transport Information**

- **Container sizes 119 gallons or less:** Not regulated by the U.S. DOT as a hazardous material.
- **Container sizes greater than 119 gallons:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Alcohol C-12-C-16 poly (1-6) ethoxylate) (Amines, tallow alkyl, ethoxylated) Marine pollutant, 9, PG III

**Section 15—Regulatory Information**

- **TSCA Inventory:** This product and/or all of its components are included on the TSCA Inventory of Chemical Substances.
- **SARA Title III, Section 302:** No ingredient listed.
- **SARA Title III, Section 311/312:**
  - Immediate: Yes
  - Delayed: No
- **Sudden Release of Pressure:**
  - No
  - Fire: No
  - Reactive: No
- **SARA Title III, Section 313 (Form R-Reporting requirements):** Glycol ethers (fraction of product meeting EPA Definition) 20-35%
- **CERCLA:** No ingredient listed.
- **PROPOSITION 65: WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

**Section 16—Other**

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