TRITON™ X-100 Surfactant

Product Information

Chemical Description

Name: Octylphenol Ethoxylate
Surfactant Type: Nonionic

\[
\begin{align*}
R &= \text{octyl (C8)} \\
x &= 9.5 \text{ (avg)}
\end{align*}
\]

Benefits

- Excellent detergent
- Dispersant & emulsifier for oil-in-water systems
- Effective performance across a broad temperature range
- Excellent wetting agent
- Readily biodegradable

Applications

- Household & industrial cleaners
- Paints & coatings
- Pulp & paper
- Oilfield
- Textile
- Agrochemicals
- Metalworking fluids

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actives, wt%</td>
<td>100</td>
</tr>
<tr>
<td>Cloud Point (1)</td>
<td>66</td>
</tr>
<tr>
<td>HLB (2)</td>
<td>13.4</td>
</tr>
<tr>
<td>Moles EO</td>
<td>9.5</td>
</tr>
<tr>
<td>pH, 5% aq solution</td>
<td>6</td>
</tr>
<tr>
<td>Pour Point (3)</td>
<td>1</td>
</tr>
<tr>
<td>Appearance (4)</td>
<td>Pale yellow liquid</td>
</tr>
<tr>
<td>Viscosity at 25°C (77°F), cP</td>
<td>240</td>
</tr>
<tr>
<td>Density at 25°C (77°F), g/mL</td>
<td>1.061</td>
</tr>
<tr>
<td>Flash Pt, Closed Cup, ASTM D93</td>
<td>251°C 485°F</td>
</tr>
</tbody>
</table>

(1) Cloud point: °C, 1 wt% actives aqueous solution
(2) HLB Range: <10 w/o emulsifier, > 10 o/w emulsifier, 10-15 good wetting, 12-15 detergents
(3) Pour point: °C
(4) Appearance at 25°C

Typical Performance Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMC (5)</td>
<td>189</td>
</tr>
<tr>
<td>Surface Tension (6)</td>
<td>33</td>
</tr>
<tr>
<td>Foam Height (7)</td>
<td>128/107</td>
</tr>
<tr>
<td>Draves 25 sec wetting conc, wt% at 25°C (77°F)</td>
<td>0.06</td>
</tr>
</tbody>
</table>

(5) Critical Micelle Concentration: ppm at 25°C
(6) Surface tension: dynes/cm at 1% actives, 25°C
(7) Ross-Miles foam height: mm at 0.1 wt% actives, 25°C, initial / 5 minute
Solubility and Compatibility

- Soluble in water
- Miscible in most polar organic solvents & aromatic hydrocarbons
- Insoluble in aliphatic hydrocarbons
- Chemically stable in most acidic & alkaline solutions
- Compatible with anionic, cationic, and other nonionic surfactants

Contact information goes here:
North America: 1-800-447-4369
Europe: (+32) 3-450-2240
Asia/Pacific: (+852) 2879 7339
Other areas: 1-989-832-1556
http://www.dow.com/surfactants

NOTICE: No freedom from any patent owned by Seller or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer’s use and for ensuring that Customer’s workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.