



## Product Bulletin

### BIO-TERGE® AS-40K

Product Name																																			
CAS Registry Number	68439-57-6																																		
INCI Name	Sodium C <sub>14-16</sub> Olefin Sulfonate																																		
Applications	BIO-TERGE AS-40K is an aqueous solution of sodium olefin sulfonate which is produced by the continuous sulfonation of alpha olefins via Stepan's falling film process. Stepan's process minimizes the formation of disulfonates thereby offering a consistent high quality product. BIO-TERGE AS-40K is an ideal surfactant for a variety of detergent and personal care applications including hand soaps, shampoos, and bath products. It offers the formulator excellent viscosity and foam characteristics, as well as improved mildness over lauryl sulfates. It is more stable than alcohol sulfates over a broad pH range.																																		
Typical Properties	<table border="0"> <tr> <td>Appearance at 25 °C .....</td> <td>Clear liquid</td> </tr> <tr> <td>Actives (MW 315), % .....</td> <td>39.2</td> </tr> <tr> <td>Unulfated Matter, % .....</td> <td>0.68</td> </tr> <tr> <td>Sodium Chloride, % .....</td> <td>0.27</td> </tr> <tr> <td>Sodium Sulfate, % .....</td> <td>0.77</td> </tr> <tr> <td>pH, 10% aqueous .....</td> <td>5.8</td> </tr> <tr> <td>Color (Klett, 5% active) .....</td> <td>40</td> </tr> <tr> <td>Viscosity at 25 °C, cps .....</td> <td>151</td> </tr> <tr> <td>Cloud Point (as is), °C (°F).....</td> <td>7 (45)</td> </tr> <tr> <td>Pour Point, °C (°F) .....</td> <td>-4 (25)</td> </tr> <tr> <td>Freeze Point, °C (°F).....</td> <td>-7 (19)</td> </tr> <tr> <td>Flash Point (PMCC), °C (°F) .....</td> <td>&gt;94 (&gt;201)</td> </tr> <tr> <td>Boiling Point, °C (°F) .....</td> <td>&gt;100 (&gt;212)</td> </tr> <tr> <td>Density, g/ml (lbs/U.S. gal) .....</td> <td>1.070 (8.9)</td> </tr> <tr> <td>Critical Micelle Concentration, mg/L .....</td> <td>301</td> </tr> <tr> <td>RVOC, U.S. EPA, % .....</td> <td>0</td> </tr> <tr> <td>Preservative .....</td> <td>Methylchloroithiazolinone/Methylisothiazolinone</td> </tr> </table>	Appearance at 25 °C .....	Clear liquid	Actives (MW 315), % .....	39.2	Unulfated Matter, % .....	0.68	Sodium Chloride, % .....	0.27	Sodium Sulfate, % .....	0.77	pH, 10% aqueous .....	5.8	Color (Klett, 5% active) .....	40	Viscosity at 25 °C, cps .....	151	Cloud Point (as is), °C (°F).....	7 (45)	Pour Point, °C (°F) .....	-4 (25)	Freeze Point, °C (°F).....	-7 (19)	Flash Point (PMCC), °C (°F) .....	>94 (>201)	Boiling Point, °C (°F) .....	>100 (>212)	Density, g/ml (lbs/U.S. gal) .....	1.070 (8.9)	Critical Micelle Concentration, mg/L .....	301	RVOC, U.S. EPA, % .....	0	Preservative .....	Methylchloroithiazolinone/Methylisothiazolinone
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Biodegradability	Product is readily biodegradable. A detailed biodegradability statement is available upon request.																																		
Toxicity	BIO-TERGE AS-40K is slightly toxic orally (oral LD <sub>50</sub> = 1.3-2.4 g/kg) and causes moderate skin and eye irritation at 10% active.																																		
Storage & Handling	<p>Normal safety precautions (i.e., the use of gloves and safety goggles) should be employed when handling BIO-TERGE AS-40K. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material. It is recommended that BIO-TERGE AS-40K be stored in sealed containers and kept at temperatures above 50 °F (10 °C). Avoid overheating or freezing. This material can gel and separate if exposed to cooler temperatures. Heat it slowly with mild agitation to insure its homogeneity before use.</p> <p><u>Bulk Storage Information:</u> Tanks made of 316 stainless steel or fiberglass with Atlac 382 corrosion liner are recommended. Positive displacement gear pumps and piping should be 316 stainless steel. Recommended storage for bulk tanks is 80-100 °F (27-38 °C).</p>																																		



Clearances

Standard Packaging: BIO-TERGE AS-40K is available in bulk, 55 gallon drums and 275 gallon totes.

All components of BIO-TERGE AS-40K are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (TSCA 68439-57-6), Canada (DSL 68439-57-6), Australia (AICS 68439-57-6), Europe (EINECS 270-407-8), Korea (ECL Serial No. KE-32477), Philippines (PICCS 68439-57-6), and China (IECSC 68439-57-6). This product is approved for limited applications in Japan; please contact Technical Service for further details.

BIO-TERGE AS-40K is USDA authorized.

BIO-TERGE AS-40K is available as Kosher Certified.

BIO-TERGE AS-40K meets the U.S. EPA Safe Choice Program's surfactant screen and is listed on [www.cleangredients.org](http://www.cleangredients.org) (an on-line database for green formulators). For further information, visit [www.cleangredients.org](http://www.cleangredients.org). Additional Stepan ingredient listing can be found at [www.stepan.com](http://www.stepan.com).

**It is the responsibility of the formulator to review the chemical control regulations for each country where the end product is intended to be sold or used.**

Product Stewardship

This product bulletin has been written in accordance with ACC's Product Stewardship guidelines.

Additional Safety Information

A Safety Data Sheet is available upon request.



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