

Product Bulletin

Product Name	BIO-SOFT® N-900																																												
Chemical Description	Nonionic Blend																																												
CAS Registry Number	68439-46-3																																												
INCI Name	C9-11 Alketh-3																																												
Description	BIO-SOFT N-900 is a nonionic surfactant blend that is designed to target cleaning, degreasing, emulsifying, and wetting on a variety of surfaces and soils. It can be formulated into concentrates and ready-to-use products for household, industrial, and institutional applications. It is compatible with anionics, amphoterics, cationics, and solvents. BIO-SOFT N-900 is an environmentally-friendly and readily-biodegradable alternative that meets or exceeds the performance of individual linear alcohol ethoxylate (LAE) surfactants and nonylphenol ethoxylates (NP-9).																																												
Applications	All-Purpose Cleaner, Hard Surface Cleaner, Bathroom Cleaner, Kitchen Cleaner, Degreaser, Wall and Tile Cleaner, Industrial Cleaner, Floor Cleaner, Warewashing, Disinfectant, Laundry, Textiles																																												
Typical Properties	<table border="0"> <tr> <td>Appearance at 25 °C</td> <td>Clear to slightly hazy liquid</td> </tr> <tr> <td>Actives, %</td> <td>95</td> </tr> <tr> <td>Hydroxyl Value, mg KOH/g</td> <td>118</td> </tr> <tr> <td>pH (1% in Water)</td> <td>6.5</td> </tr> <tr> <td>Color APHA</td> <td>10</td> </tr> <tr> <td>HLB</td> <td>13.0</td> </tr> <tr> <td>Molecular Weight, g/mol</td> <td>484</td> </tr> <tr> <td>EO Content, weight %</td> <td>65</td> </tr> <tr> <td>Viscosity at 25 °C, cps</td> <td>59</td> </tr> <tr> <td>Viscosity at 38 °C, cps</td> <td>27</td> </tr> <tr> <td>Flash Point (PMCC), °C (°F)</td> <td>> 94 (> 201)</td> </tr> <tr> <td>Cloud Point (1% in Water), °C, (°F)</td> <td>64 (147)</td> </tr> <tr> <td>Pour Point, °C, (°F)</td> <td>6 (43)</td> </tr> <tr> <td>Freeze Point, °C, (°F)</td> <td>-7 (19)</td> </tr> <tr> <td>Density at 25 °C, g/mL (lbs/U.S. gal)</td> <td>1.00 (8.364)</td> </tr> <tr> <td>Density at 38 °C, g/mL (lbs/U.S. gal)</td> <td>0.988 (8.25)</td> </tr> <tr> <td>Critical Micelle Concentration (CMC), mg/L</td> <td>160</td> </tr> <tr> <td>Surface Tension at 0.1%, dynes/cm</td> <td>30</td> </tr> <tr> <td>Draves Wetting at 25 °C (0.1% in Water), sec</td> <td>8</td> </tr> <tr> <td>Draves Wetting at 60 °C (0.1% in Water), sec</td> <td>5</td> </tr> <tr> <td>RVOC, U.S. EPA, %</td> <td>0</td> </tr> <tr> <td>Preservative</td> <td>None required</td> </tr> </table>	Appearance at 25 °C	Clear to slightly hazy liquid	Actives, %	95	Hydroxyl Value, mg KOH/g	118	pH (1% in Water)	6.5	Color APHA	10	HLB	13.0	Molecular Weight, g/mol	484	EO Content, weight %	65	Viscosity at 25 °C, cps	59	Viscosity at 38 °C, cps	27	Flash Point (PMCC), °C (°F)	> 94 (> 201)	Cloud Point (1% in Water), °C, (°F)	64 (147)	Pour Point, °C, (°F)	6 (43)	Freeze Point, °C, (°F)	-7 (19)	Density at 25 °C, g/mL (lbs/U.S. gal)	1.00 (8.364)	Density at 38 °C, g/mL (lbs/U.S. gal)	0.988 (8.25)	Critical Micelle Concentration (CMC), mg/L	160	Surface Tension at 0.1%, dynes/cm	30	Draves Wetting at 25 °C (0.1% in Water), sec	8	Draves Wetting at 60 °C (0.1% in Water), sec	5	RVOC, U.S. EPA, %	0	Preservative	None required
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Preservative	None required																																												
Environmental Effects	BIO-SOFT N-900 is expected to be readily biodegradable. Additional information is available upon request.																																												
Health Effects	BIO-SOFT N-900 is slightly toxic orally (LD50 > 2,000 mg/kg), and at 10% active causes slight skin and moderate eye irritation.																																												



Storage & Handling

While diluting BIO-SOFT N-900, as with all alcohol ethoxylates, it is prone to gelling. If the product is diluted into water, heating may be required to minimize or eliminate gel formation.

Standard Packaging: BIO-SOFT N-900 is available in drum, tote, and in bulk quantities.

Non-Bulk Storage Recommendations: BIO-SOFT N-900 should be stored in closed containers and kept in a cool, dry place away from incompatible materials (see Section 10 of the SDS). In general, as with all alcohol ethoxylates, non-bulk packages should be stirred to ensure they are homogeneous before use. If material is frozen, it should also be heated gently and stirred to ensure it is homogeneous before use.

Bulk Storage Recommendations: BIO-SOFT N-900 should be stored in vessels of 316 stainless steel or fiberglass with a corrosion liner. Heating and agitation are recommended for outside storage. Material should be stored between 95-131 °F (35-55 °C). An internal hairpin coil of 316 stainless steel with low pressure steam (under 50 psig) should be used if heating is required. Pumps, pipes and transfer lines should be 316 stainless steel.

Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling BIO-SOFT N-900. Contact with eyes, nose or prolonged contact with skin should be avoided. Wash thoroughly after handling BIO-SOFT N-900.

Workplace Exposure

Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace practices should be used to control these exposures.

Clearances

The international inventories (country clearances) of BIO-SOFT N-900 can be found in Section 15 of the Safety Data Sheet (SDS). **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.** If you have any further questions regarding inventories, please contact North America Technical Service at techserv@stepan.com.

BIO-SOFT N-900 meets U.S. EPA Safe Choice Program's surfactant screen and is listed on www.cleangredients.org (an on-line database for green formulators). For further information, visit www.cleangredients.org. Additional Stepan ingredient listing can be found at www.stepan.com.

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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