

Product Bulletin

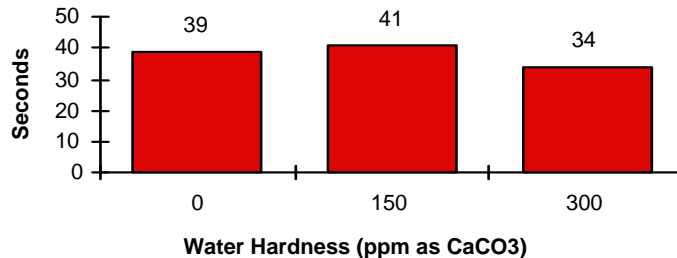
ALPHA-STEP® MC-48

Product Name	ALPHA-STEP® MC-48																													
Chemical Structure & Description	<div><div><div><div>H</div><div>O</div></div><div><div> </div><div> </div></div><div>R - C - C - OCH₃</div><div><div> </div><div>SO₃Na</div></div></div><div>and</div><div><div><div>H</div><div>O</div></div><div><div> </div><div> </div></div><div>R - C - C - ONa</div><div><div> </div><div>SO₃Na</div></div></div></div>																													
INCI Name	Sodium Methyl 2-Sulfolaurate (and) Disodium 2-Sulfolaurate																													
CAS Registry No.	149458-07-1																													
Applications	<p>ALPHA-STEP MC-48 is an anionic surfactant derived from oleochemicals and its hydrophobic chain distribution, which ranges from C₁₂ to C₁₈, allows for excellent detergency performance in a wide variety of household and industrial applications. In addition, ALPHA-STEP MC-48 functions as a hydrotrope capable of solubilizing high active systems. This versatile surfactant also functions well in hard water, having favorable hard water tolerance and lime soap dispersing ability. ALPHA-STEP MC-48 is a readily soluble liquid that can easily be formulated between pH 4 and 9. ALPHA-STEP MC-48 is useful in household and industrial liquid laundry, hand dishwash, hard surface cleaners, and hand soaps.</p>																													
Typical Properties	<table><tr><td>Appearance at 25 °C.....</td><td>Clear yellow liquid</td><td>pH, 10% aqueous.....</td><td>6</td></tr><tr><td>Color, Gardner</td><td>4 max.</td><td>Flash Point (SETA), °C (°F).....</td><td>66 (151)</td></tr><tr><td>Total Actives, %</td><td>38</td><td>Density, g/ml (lbs/U.S. gal).....</td><td>1.05 (8.7)</td></tr><tr><td>Solids, % by Wt.....</td><td>43</td><td>Viscosity at 25 °C, cps.....</td><td><100</td></tr><tr><td>Pour Point, °C (°F)</td><td>-5 (23)</td><td>RVOC, U.S. EPA, % (Methanol).....</td><td>3</td></tr><tr><td>Freeze Point, °C (°F).....</td><td>-8 (18)</td><td>Critical Micelle Concentration, mg/L</td><td>120</td></tr><tr><td>Cloud Point (Quick Cool), °C (°F).....</td><td>5 (41)</td><td>Preservative</td><td>Not required</td></tr></table>		Appearance at 25 °C.....	Clear yellow liquid	pH, 10% aqueous.....	6	Color, Gardner	4 max.	Flash Point (SETA), °C (°F).....	66 (151)	Total Actives, %	38	Density, g/ml (lbs/U.S. gal).....	1.05 (8.7)	Solids, % by Wt.....	43	Viscosity at 25 °C, cps.....	<100	Pour Point, °C (°F)	-5 (23)	RVOC, U.S. EPA, % (Methanol).....	3	Freeze Point, °C (°F).....	-8 (18)	Critical Micelle Concentration, mg/L	120	Cloud Point (Quick Cool), °C (°F).....	5 (41)	Preservative	Not required
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Biodegradability	Product is readily biodegradable. Additional information available upon request.																													
Toxicity	<p>ALPHA-STEP MC-48 has an oral LD₅₀ > 5 g/kg. The available toxicity data show ALPHA-STEP MC-48 to be practically non-toxic to mammals (rats) and moderate to slight toxicity to aquatic organisms. ALPHA-STEP MC-48 causes severe skin and eye irritation when tested as is. However, at 10% active and 4 hour exposure time, ALPHA-STEP MC-48 is minimally irritating to the skin. Repeated Application Soap Chamber test results show ALPHA-STEP MC-48 to be much less of a cumulative skin irritant than sodium lauryl sulfate at 0.25% active ingredients. Additional toxicity data are available upon request.</p>																													
Storage & Handling	<p>Normal safety precautions (i.e., gloves and safety goggles) should be employed with handling ALPHA-STEP MC-48. Contact with the eyes and prolonged contact with the skin should be avoided.</p> <p>ALPHA-STEP MC-48 is combustible. It is recommended that ALPHA-STEP MC-48 be stored in sealed containers and kept in a well ventilated area, away from heat and open flames. Store and handle in equipment normally used for detergents. The storage and transfer of ALPHA-STEP MC-48 complies with NFPA 30 (due to flashpoint). Recommended storage temperature is 60-80 °F (15-27 °C). ALPHA-STEP MC-48 is a Class IIIA liquid and should be stored in tanks that have conservation vents that keep the tank closed except for venting/inbreathing during filling/emptying operations. Installation of a flame arrestor is strongly recommended. Material of construction of storage tank should be 316 stainless steel (or fiberglass with DION 382 liner). Transfer pumps should be Viking stainless steel (or other similar gear pump) with internal pressure relief capabilities. The tank and pump should be grounded. If frozen, mild heat and agitation are recommended to ensure material is homogenous before use. Keep product between pH of 4 and 9 or hydrolysis will occur.</p>																													

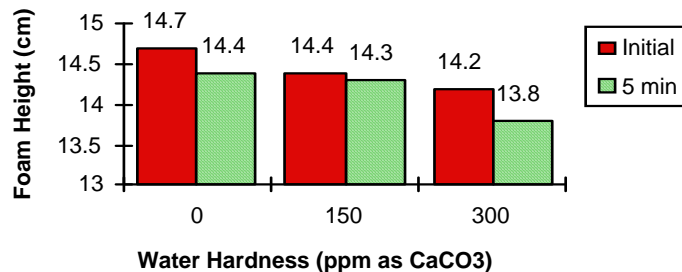


Surface Active Properties

Drave's Wetting (0.1% actives at 25°C)



Ross-Mile's Foaming (0.1% actives at 25°C)



Clearances

ALPHA-STEP MC-48 is available as Kosher Certified.

All components of ALPHA-STEP MC-48 are listed in the following countries: United States (TSCA), Australia (AICS), Canada (DSL), Korea (ECL) and China (IECSC), Japan (ENCS), and New Zealand (NZIoC).

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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