

Product Bulletin

STEOL® CS-270 C

Product Name																													
Chemical Structure	CH ₃ (CH ₂) ₁₀ CH ₂ (OCH ₂ CH ₂) ₂ OSO ₃ Na																												
CAS Registry No.	68585-34-2																												
INCI Name	Sodium Laureth Sulfate																												
Chemical Description	STEOL CS-270 C is an aqueous concentrated sodium lauryl ether sulfate derived from fatty alcohols, ethoxylated to an average of two moles, and sulfated via Stepan's continuous SO ₃ process. The consistent, high purity product made possible by this continuous sulfation process will afford excellent reproducibility in STEOL CS-270 C based formulas.																												
Applications	<p>STEOL CS-270 C provides improved mildness over sodium lauryl sulfate without sacrificing critical performance attributes, such as foaming and viscosity response. Its low irritation properties make it ideal for mild cleansing products.</p> <p>STEOL CS-270 C can be readily formulated into shampoos, bath products, hand soaps, and detergents offering the required physical properties and performance attributes.</p> <p>Products based on STEOL CS-270 C can be thickened with salts, betaines, or amides, with the latter two also serving to enrich the foam. A variety of performance and physical attributes can be obtained simply by adjusting the amount of additive incorporated into a formula. Since STEOL CS-270 C is compatible with commonly used opacifying and pearling agents, the formulator is afforded flexibility in developing the desired product appearance.</p>																												
Typical Properties	<table border="0"> <tr> <td>Appearance at 25 °C</td> <td>Mobile paste</td> </tr> <tr> <td>Actives, % (MW 382)</td> <td>68 - 72</td> </tr> <tr> <td>Unsulfated Alcohol (language on CoA), %</td> <td>2.5 max</td> </tr> <tr> <td>Sodium Chloride, %.....</td> <td>0.5 max</td> </tr> <tr> <td>Sodium Sulfate, %</td> <td>1.0 max</td> </tr> <tr> <td>pH, 10% aqueous</td> <td>7.0 – 9.0</td> </tr> <tr> <td>Color, %T at 440 nm, 25% active.....</td> <td>90 min</td> </tr> <tr> <td>Flash Point (PMCC), °C (°F)</td> <td>>94 (>201)</td> </tr> <tr> <td>Freeze Point, °C (°F)</td> <td>5 (40)</td> </tr> <tr> <td>Boiling Point, °C (°F)</td> <td>>100 (>212)</td> </tr> <tr> <td>Density at 25 °C, g/ml (lbs/U.S. gal.).....</td> <td>1.03 (8.6)</td> </tr> <tr> <td>Critical Micelle Concentration, mg/L.....</td> <td>279</td> </tr> <tr> <td>RVOC, U.S. EPA, %.....</td> <td>0</td> </tr> <tr> <td>Preservative.....</td> <td>Not required</td> </tr> </table>	Appearance at 25 °C	Mobile paste	Actives, % (MW 382)	68 - 72	Unsulfated Alcohol (language on CoA), %	2.5 max	Sodium Chloride, %.....	0.5 max	Sodium Sulfate, %	1.0 max	pH, 10% aqueous	7.0 – 9.0	Color, %T at 440 nm, 25% active.....	90 min	Flash Point (PMCC), °C (°F)	>94 (>201)	Freeze Point, °C (°F)	5 (40)	Boiling Point, °C (°F)	>100 (>212)	Density at 25 °C, g/ml (lbs/U.S. gal.).....	1.03 (8.6)	Critical Micelle Concentration, mg/L.....	279	RVOC, U.S. EPA, %.....	0	Preservative.....	Not required
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Environmental Effects	STEOL CS-270 C is readily biodegradable. A detailed biodegradability statement is available upon request.																												
Health Effects	Product is slightly to practically non-toxic orally (LD ₅₀ >5 g/kg).and it causes minimal skin and moderate eye irritation at 10% active.																												



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.

Storage & Handling

Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling STEOL CS-270 C. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.

The recommended dilution procedure for STEOL CS-270 C is to heat the precalculated water charge to 30-40 °C (86-104 °F). While agitating, add the STEOL CS-270 C at such a rate as to allow the product to dissolve without forming large gel masses. If excessive foam is generated, decrease agitation. All inorganic salts should be added once a clear solution of desired activity has been obtained.

It is recommended that STEOL CS-270 C be stored in sealed containers and kept at temperatures between 32-43 °C (90-110 °F). Avoid overheating or freezing. If material is frozen, heat mildly using warm water tracing.

Bulk Storage Information: Tanks, pumps, pipes and heat exchangers made of 316 stainless steel are recommended. Rotary piston type (positive displacement only) pumps are recommended. Recommended storage temperature for bulk tanks is 32-43 °C (90-110 °F).

Standard Packaging: STEOL CS-270 C is available in bulk and 55 gallon drums (net weight 450 lb/204 kg).

Clearances

All components of STEOL CS-270 C are listed in the following countries: United States (TSCA 68585-34-2), Australia (AICS 68585-34-2), Canada (DSL 68585-34-2), China (IECSC 68585-34-2), Europe (NLP 500-223-8), Japan (ENCS 2-1682), Korea (ECL Serial No. KE-32438), Philippines (PICCS 68585-34-2) and New Zealand (ZNIoC 68585-34-2). It is the responsibility of the end user to review the chemical control regulations for each country.

STEOL CS-270 C meets the 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.

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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