

Product Bulletin

Product Name	STEOL® CS-230																																
Chemical Structure	$\text{CH}_3 (\text{CH}_2)_{10} \text{CH}_2 (\text{OCH}_2 \text{CH}_2)_2 \text{OSO}_3 \text{Na}$																																
CAS Registry Number	68585-34-2																																
INCI Name	Sodium Lauerth Sulfate																																
Applications	<p>STEOL CS-230 is a 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-230 based formulas.</p> <p>STEOL CS-230 provides improved mildness over sodium lauryl sulfate without sacrificing critical performance attributes, such as foaming and viscosity response. Its low irritation properties allow it to be used for mild cleansing products, as well as, baby products.</p> <p>STEOL CS-230 can be formulated into shampoos, bath products, and hand soaps, offering the required physical properties and performance attributes.</p> <p>Products based on STEOL CS-230 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-230 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>Clear liquid</td> </tr> <tr> <td>Actives (MW 382)</td> <td>25.5</td> </tr> <tr> <td>Unulfated Alcohol, %</td> <td>0.9</td> </tr> <tr> <td>Sodium Chloride, %</td> <td>0.03</td> </tr> <tr> <td>Sodium Sulfate, %</td> <td>0.2</td> </tr> <tr> <td>pH, 10% aqueous</td> <td>7.5</td> </tr> <tr> <td>Color (%T at 420nm), as is</td> <td>95</td> </tr> <tr> <td>Cloud Point (as is), °C (°F)</td> <td>5 (41)</td> </tr> <tr> <td>Freeze Point, °C (°F)</td> <td>1 (34)</td> </tr> <tr> <td>Flash Point, PMCC, °C (°F)</td> <td>>94 (>201)</td> </tr> <tr> <td>Viscosity at 25°C, cps</td> <td>373</td> </tr> <tr> <td>Viscosity at 60°C, cps</td> <td>52</td> </tr> <tr> <td>Density at 25°C, g/mL (lbs/U.S. gal)</td> <td>1.04 (8.7)</td> </tr> <tr> <td>Critical Micelle Concentration, mg/L</td> <td>119</td> </tr> <tr> <td>RVOC, U.S. EPA, %</td> <td>0</td> </tr> <tr> <td>Preservative</td> <td>Formaldehyde</td> </tr> </table>	Appearance at 25°C	Clear liquid	Actives (MW 382)	25.5	Unulfated Alcohol, %	0.9	Sodium Chloride, %	0.03	Sodium Sulfate, %	0.2	pH, 10% aqueous	7.5	Color (%T at 420nm), as is	95	Cloud Point (as is), °C (°F)	5 (41)	Freeze Point, °C (°F)	1 (34)	Flash Point, PMCC, °C (°F)	>94 (>201)	Viscosity at 25°C, cps	373	Viscosity at 60°C, cps	52	Density at 25°C, g/mL (lbs/U.S. gal)	1.04 (8.7)	Critical Micelle Concentration, mg/L	119	RVOC, U.S. EPA, %	0	Preservative	Formaldehyde
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Environmental Effects	STEOL CS-230 is readily biodegradable. A detailed biodegradability statement is available upon request.																																



Health Effects

STEOL CS-230 is practically non-toxic orally (LD₅₀ is >5 g/kg) and causes mild to moderate skin and moderate eye irritation at 10% active.

Storage & Handling

Normal safety precautions (e.g., gloves and safety goggles) should be employed when handling STEOL CS-230. Contact with eyes, nose or prolonged contact with skin should be avoided. Wash thoroughly after handling STEOL CS-230. See SDS for more information.

Standard Packaging: STEOL CS-230 is available in drums, totes, and bulk quantities.

Non-Bulk Storage Recommendations: STEOL CS-230 should be stored in closed containers above 45°F (7°C) and kept in a cool, dry place away from incompatible materials (see Section 10 of the SDS). If material is frozen it should be heated gently and stirred to ensure it is homogeneous prior to use.

Bulk Storage Recommendations: STEOL CS-230 should be stored in vessels of 316 stainless steel or fiberglass with an Atlac 382 corrosion liner are recommended. Positive displacement gear pumps and piping should be 316 stainless steel. Recommended storage for bulk tanks is 90-100°F (32-38°C).

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 safety practices should be used to control these exposures. See SDS for more information.

Clearances

The international inventories (country clearances) of STEOL CS-230 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.

Product Stewardship

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

Additional Safety Information

A Safety Data Sheet (SDS) is available upon request.



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