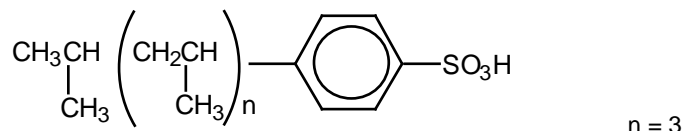


Product Bulletin

Product
Name

SULFONIC 100

Chemical
Structure



Chemical
Description

Branched Alkylbenzene Sulfonic Acid

CAS
Registry No.

68608-88-8

INCI Name

Dodecyl Benzene Sulfonic Acid

Applications

SULFONIC 100 is an economical and versatile, biodegradable surfactant intermediate. This product can be neutralized with a variety of inorganic bases and organic amines to give a wide range of sulfonates with the properties of your choice. SULFONIC 100 contains a minimum of sulfuric acid and upon neutralization produces material with little salt, light color and low odor. Both water soluble and oil soluble salts can be formed depending upon the choice of base. SULFONIC 100 is useful as a drilling foamer; it can also function as a catalyst in acid-catalyzed reactions. The salts can be in styrene butadiene rubber (SBR) latex. Amine salts can be used as acid catalysts in aqueous systems.

Neutralization Information: Temperature and pH must be controlled during neutralization of SULFONIC 100 to prevent darkening of the product and corrosion of stainless-steel equipment. The reaction temperature should not be allowed to exceed 50 °C and the pH should not go below 6.5. Approximate amounts of SULFONIC 100 and various alkalis for neutralization to make 100 lbs of active dodecylbenzene sulfonate are shown below. Actual requirements will vary with each shipment. It may be necessary to make final adjustments based on pH, adding more acid to lower the pH or more alkali to raise the pH, until the product is approximately neutral.

Neutralization of SULFONIC 100*	
Alkali	SULFONIC 100
25.2 lbs. NaOH (50%)	97.7 lbs.
37.6 lbs. KOH (45%)	93.3 lbs.
33.1 lbs. Triethanolamine (85%)	72.8 lbs.
40.0 lbs. Ammonium Hydroxide (28% NH ₃)	99.1 lbs.

*to obtain 100 lbs of Alkylbenzene sulfonate

Typical
Properties

Appearance at 25°C.....	Clear to slightly hazy, dark brown liquid
pH, as is	<1
Actives (EW 326), %	95 min.
Pour Point, °C (°F)	12 (54)
Freeze Point, °C (°F).....	9 (48)
Viscosity at 25 °C, cps	11,000
Flash Point (PMCC), °C (°F)	>94 (>201)
Density at 38°C, g/ml (lbs/U.S. gal).....	1.03 (8.56)
RVOC, U.S. EPA, %	0

Environmental
Effects

Product is biodegradable. A detailed biodegradation statement is available upon request.



Storage & Handling

SULFONIC 100 is a strong acid and should be handled with extreme care. Avoid contact with eyes and skin. Wash thoroughly after handling material.

Standard Packaging: SULFONIC 100 is available in drums and in bulk quantities.

It is recommended that SULFONIC 100 be stored in closed containers and kept in a cool, dry place.

Bulk Storage Information: SULFONIC 100 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 80 - 100°F (27 - 38°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.

For the purposes of offloading and packaging, the product may be heated to a maximum of 140°F (60°C). The product should not be kept at this temperature for longer than 1 week.

Clearances

The international inventories (country clearances) of SULFONIC 100 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

SULFONIC 100 is available in Kosher grade.

SULFONIC 100 is approved for use as inert ingredients under U.S. EPA 40CFR 180.910 and 180.930.

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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