



TECHNICAL BULLETIN

TRISURF ES-28

DESCRIPTION:

TRISURF ES-28 is a modified fatty alcohol sulphate exhibiting low level of colour and odour. This liquid product was especially developed for shampoos, bubble baths and other foaming toiletries. The excellent viscosity building properties, mildness and high foaming characteristics of **TRISURF ES-28** particularly valuable in formulating a variety of cosmetic and personal care product.

TYPICAL PROPERTIES:

Percent active ingredient	27.0 – 28.0
Percent Sodium Sulfate	0.4% Max
Unulfated Matter	0.8% Max
Critical micelle conc. Wt%	0.15
pH, 10% solution	6 - 8

PHYSICAL PROPERTIES:

The outstanding characteristics of this product are clear solubility and extremely high foam in water of nearly any hardness, even at low temperatures.

Other outstanding features are:

- ▶ The solubilising power of **TRISURF ES-28** is it's outstanding solubilising property for a number of perfume oils.
- ▶ Stability toward pH changes, as well as metal ions and oxidising agents, is also outstanding.
- ▶ Stability – **TRISURF ES-28** produces sparkling clear solution in water of practically any hardness.
- ▶ Viscosity Response – The viscosity of this sulphated lauryl ethoxylate is strongly affected by the addition of electrolytes as well as by lauryl alcohol ethoxylates, amides and amphoteric. By using small amounts of these materials, a wide range of viscosity is possible.

PHYSICAL PROPERTIES: (continued)

- ▶ Foaming – **TRISURF ES-28** is among the highest foaming surfactant commercially available. Comparisons with sodium lauryl sulphate, using the Ross-Miles foam test are shown in the following table (TABLE I) for both deionized and hard water. The data illustrates that while the product is an excellent foamer; the best overall foaming is given by sulphate.

TABLE I
ROSS-MILES FOAM HEIGHT (ml)

Product	D.I Water		300 PPM Water	
	Initial	5 min	Initial	5 min
SLS	195	162	180	152
ES-28	200	170	205	180

- ▶ Wetting – **TRISURF ES-28** is a good wetting. As in the foam test, the wetting properties are even improved in hard water. A 0.3% concentration of **TRISURF ES-28** required 7.0 seconds for wetting cotton tapes in distilled water, versus 5.0 seconds in water of 300 PPM hardness. An equal concentration of sodium lauryl sulphate produced results of 17.7 and 25.5 seconds respectively.

The concentration of **TRISURF ES-28** required for 25 seconds sinking time is 0.06% compared to 0.10% for sodium lauryl sulphate.

For more information concerning the handling, the manipulation or the use of this product, please consult our material safety data sheet or consult our Technical Service department.

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