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MIXED
9-0283-13-100-00

Ethoxybrite LF400

Ethoxylated fatty alcohol

CAS nr: 9038-95-3 (LF400)
Einecs nr: 500-213-3 (C12C14); polymer

Product information

Synonyms: fatty alcohol ethoxylate; poly oxy ethylene alkyl alcohol; poly ethylene alkyl ether $C_nH_{2n+1}(OCH_2CH_2)_eOH$, in which n is the number of C-atoms in the fatty chain and e is the average number of moles ethylene oxide per molecule.

Ethoxybrite LF400 is a low foaming non-ionic surfactant with strong wetting properties.
The fatty alcohol part is unbranched. The ethoxy-part comprises ethylene oxide as well as higher alkene oxides. It does not react with cations such as Ca^{2+}, Mg^{2+} and is resistant to chlorine, phosphates, silicates, acids and alkalines.

Ethoxylated fatty alcohols are mild, non-ionic surfactants based on RSPO palm kernel oil. Their mildness results from the fact that non-ionic surfactants do not have a strong electric charge. They are especially suitable in:
- cleaning wool and other delicate fabrics
- cleaning face, hands and other skin
- emulsifying in detergents, cosmetics and water treatment
- wetting of surfaces in skin/hair cosmetics and water treatment

The length of the (dirt dissolving) fatty chain is given by the number of C-atoms (C8C10 mans chains of 8 to 10 C-atoms). The number of water binding ethoxy groups is given by the amount of mol EO; the number of bonded molecules ethylene oxide per molecule Ethoxybrite.

There are synthetic ethoxylated fatty alcohols (made from natural oil); those have an odd number of C-atoms (C9-C11-C13-C15-C17, etc). The ethoxylated fatty alcohols with even number of C-atoms are derived from natural sources like palm oil. So the even number of C-atoms in Ethoxybrite assures you of a sustainable raw material.

The higher the cloud point, the higher the solubility of Ethoxybrite in water. The cloud point is the temperature at which an aqueous solution of a water-soluble surfactant becomes turbid. This is also the point at which the carbon chains acquire so much energy that they let go of each other. The non-ionic separates into its own phase. For maximum efficacy, Ethoxybrite's should be used at temperatures at or just below their cloud point. Optimizing micelle formation can limit the chain lengths of ethoxylated fatty alcohols that are available for your application. Our Ethoxybrite line has a number of chain lengths available so that one can tailor the non-ionic to do what is required.

Product specifications

Test Item	Ethoxybrite LF400
Appearance	Colourless liquid
Active content, %	97.0 - 100
pH (1% in water)	5.0 – 7.5
Hydroxyl value, mgKOH/g	-
Turbidity titration value	-
Glycol, %	-
Moisture, %	0.5 max (KF)
Cloud point, °C	30 - 35
Relative density (70°C)	0.96 – 1.00
HLB-value	-

This is an example of one of the many Ethoxybrite possibilities
Please ask us for the specifications of your specific C-chain and EO-number.
Change specifications

Commercial

Packaging:
200liter drums, 1000liter IBC's, 24mt ISO tank container (bulk)
Lead time:
8 weeks

Sirius is member of the RSPO, the international Round table of Sustainable Palm Oil. This institution hands out certificates for palm oil products, such as soap noodles and ethoxylated fatty alcohols, which are harvested and produced sustainably, with protection of nature and workers.

Technical

Risk of eye irritation. Very toxic to aquatic organisms.

Ethoxybrites are liquid raw materials and ideal for use in liquid detergents. They are also easily absorbed onto carriers such as Silibrite SMS and Silibrite SDS, and thus applicable in washing powders. Ethoxybrites should be added to water while stirring. When water is addd to Ethoxybrite, the viscosity of the solution can temporarily increase.

The information in this datasheet is to the best of our knowledge, true and accurate. Any recommendations or suggestions are made without warranty or guarantee since the conditions of use are beyond our control.