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APROVADO
Dep. Qualidade

EMAL® 270E

- Primary anionic surfactant
- Vegetable origin
- Foaming detergent

CHEMICAL IDENTIFICATION

$$R\text{-}(OCH_2CH_2)_n\text{-}OSO_3Na$$

R= C_{1214}natural
n = 2

INCI Name :	Sodium Laureth Sulfate
CAS Number :	68891-38-3

TECHNICAL SPECIFICATIONS

		Kao Method
APPEARANCE (20ºC) :	Colourless or slightly yellowish fluid paste	KCSA-258
ACTIVE MATTER (%, Ew = 382) :	68.0 – 73.0	KCSA-130
UNSULPHATED MATTER (%) :	3.5 max.	KCSA-086
SODIUM SULPHATE (%) :	1 max.	KCSA-094
pH (3% solution in water) :	7.0 – 9.0	KCSA-014
COLOUR (Apha,20% in water) :	25 max.	KCSA-207

TYPICAL PROPERTIES

ODOUR :	Characteristic
DENSITY (20ºC, g/mL, “spot”) :	1.030 approx.
VISCOSITY (20ºC cPs) :	< 20.000
SOLUBILITY IN WATER :	Soluble
MICROBIOLOGICAL CONTROL (fcu / mL) :	10 max.
CHARACTER :	Anionic

EMAL® 270E

APPLICATION PROPERTIES

- EMAL® 270E is a high foaming anionic surfactant, even at very low concentration. Its foaming properties are not affected by hardness or temperature changes.
- EMAL® 270E is completely compatible with other anionic, non-ionic and amphoteric surfactants, and therefore can be easily mixed with them.
- A wide range of formulations for several application fields, in which EMAL® 270E is the main foaming and detergent raw material, can be obtained.
- The best way to incorporate the EMAL® 270E into a formulation, is pouring it slowly to the warm water (40 – 45ºC), under stirring conditions. It can be also solubilized at lower temperatures, but longer stirring time is needed (depending on the concentration).
- EMAL® 270E has an excellent soil dispersing effect, performing as a very good detergent.
- EMAL® 270E solutions can be easily thickened using electrolytes (NaCl, NH_4Cl, Na_2SO_4...). Sodium chloride is the most effective one. The addition of other non-ionic surfactants, as for instance amides, allows to reduce the percentage of NaCl needed. Even fragrances can have a positive or negative influence on the viscosity of the formula.
- Although EMAL® 270E, under its commercial form (70% active), does not need any preservative due to its high concentration, it is always recommended to include a preservative after its dilution.
- Due to its anionic character, EMAL®270E should not be mixed with cationic components (surfactant, dyes,..) in the same formula. Some incompatibilities could appear (hazyness, precipitates, viscosity problems, ...).

STORAGE – HANDLING – SHELF LIFE

- EMAL® 270E is chemically stable for a long period of time under appropriate storage conditions (temperature of 25ºC and original unopened container). A general advise is to use the complete container every time.
- If the EMAL®270E has been submitted to low temperatures, it is recommended to use hot water to heat up the container. This helps to pour out the product. A period of time in a room stabilized at his temperature (≈ 50ºC) is also advisable. The use of steam has to be always avoided, due to possible problems of hydrolisis.
- The shelf life of EMAL® 270E can be considered of 1 year minimum under proper storage conditions. After longer storage time some of its characterising parameters (*odour, appearance, colour ,pH,…*), should be checked before using it.