BEAULIGHT® LCA-25F



New category: Ether carboxylate type anionic surfactant



◆Feature

- Ether carboxylate type anionic surfactant
 →Low irritation & Refreshing feeling
- Derived from Narrow Distribution of Ethylene Oxide
- Highly Compatible with Common Surfactants
- Bio-Degradable & Sulfate Free
- RSPO certification acquired(Spring 2023).

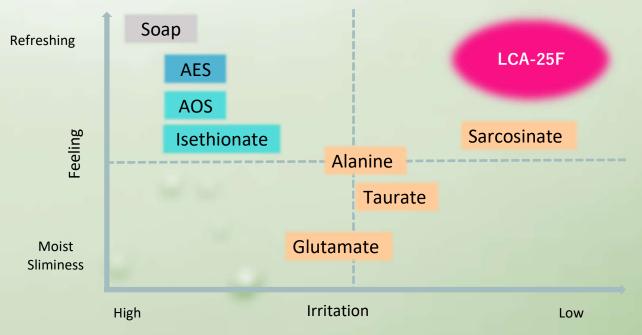


◆Component

INCI Name	Evaporated residue	Appearance
Sodium Laureth-4 Carboxylate	28%	Liquid, Clear, Colorless to Yellowish

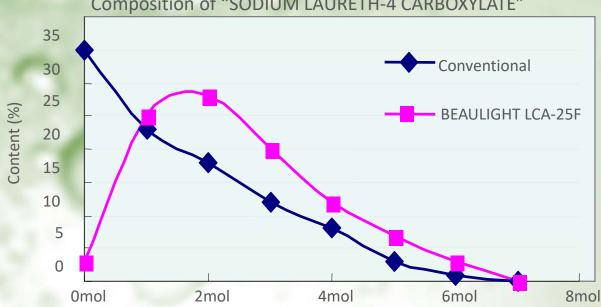
◆LCA-positioning

Low irritation and Refreshing feeling.



◆Alkylene Oxide Adduct(AOA) Narrowing Technology $C_{12}H_{25}O(CH_2CH_2O)_nCH_2COONa (n = 3)$

The number of EO adducted Composition of "SODIUM LAURETH-4 CARBOXYLATE"



■Strengths

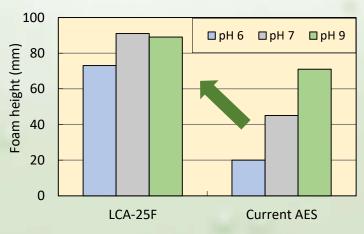
✓ Reduced content of unreacted alcohol✓ Sharpened EO addition mole distribution



High foaming ability
High thickening effect

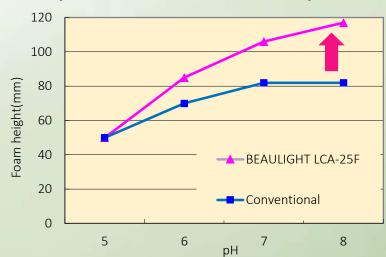
◆Application Data

■ Foaming ability (effective concentration: 0.3%)



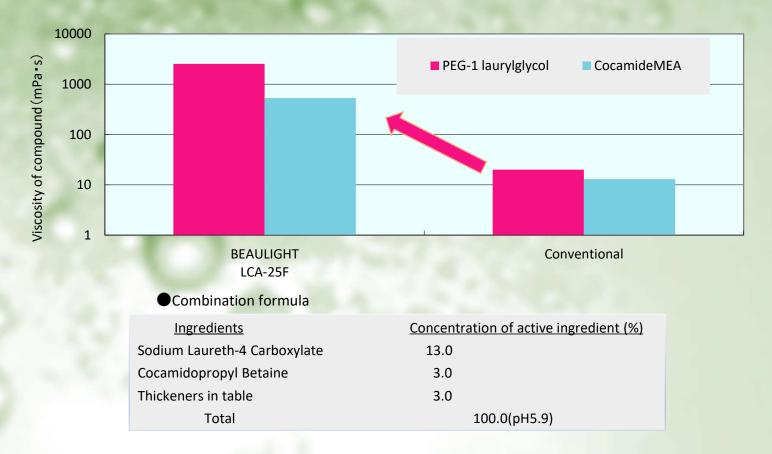
Good foaming over a wide pH range

■ Bubbling ability (effective concentration: 0.2%)



All are "INCI: Sodium Laureth-4 Carboxylate", but BEAULIGHT LCA-25F has higher foaming ability than conventional

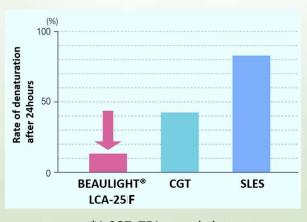
■ Viscosity of compound



BEAULIGHT LCA-25F has a higher degree of thickening effect than Conventional.

♦Safety data

■ Protein denaturation



*1 CGT: TEA cocoyl glutamate *2 SLES: Sodium laureth sulfate

Narrowing contributes to reduced protein denaturation

Test Method

Protein: 0.05% albumin solution

Active agent concentration: 1.0% aqueous solution of active ingredient

(SLES (sodium laureth sulfate) is measured as a standard)

Bath ratio: albumin aqueous solution/activator aqueous solution = 9/1

Denaturation temperature: 20-25° C x 24 hours

Quantitative method: High performance liquid chromatography (HPLC)

Formula

Protein denaturation rate (%)=

{(peak height of blank after 24h)-(peak height of sample solution after 24h)}

(peak height of blank after 24 hours)

Human test

- √ 24-hour occlusion human patch test: Safety
- √ RIPT: Safety



Shampoo formula for "Sulfate Free" & "Mild" Shampoo. This formula is low irritation and refreshing feeling.

	Ingredients (INCI)	Sanyo's Products	wt%	Purpose
A.	Water	COPPLE SON	17.75	Base
В.	Polyquaternium-10		0.50	Feel adjustment
	Polyquaternium-7		2.10	Feel adjustment
	Water		25.00	Base
C.	Cocamidopropyl Betaine	LEBON HC-30W	15.00	Cleaning agent
	Sodium Laureth-4 Carboxylate	BEAULIGHT LCA-25F	30.00	Cleaning agent
	Sodium Lauryl Glycol Carboxylate	BEAULIGHT SHAA	5.00	Cleaning agent
D.	Cocamide DEA		3.00	Cleaning agent
	PEG-1 Lauryl Glycol	NEWPOL DDE-10	1.00	Preservatives
	Phenoxyethanol		0.50	Preservatives
E.	Citric acid(10%aq.)		Appropriately	pH adjuster
	total	T ALLAS	100.00	

[Manufacturing Procedures]

- 1: Add B to A and mix thoroughly at 25°C and heat to 70-75°C.
- 2: C mix well and heat to 70-75 °C.
- 3: D mix well and heat to 70-75 °C.
- 4: Add C into (A+B) and mix well.
- 5: Add D into (A+B+C) and mix well.
- 6: Put E into (A+B+C+D) and adjust the pH. Cool and defoam.



♦History

BEAULIGHT LCA-25F has been used by many major Japanese cosmetic makers for 30 years. It is also used in <u>baby-specific products</u> and has a proven track record.



