

## Concentrated Cocamidopropyl Betaine based on RSPO certified segregated palm kernel oil

### INTENDED USE

Surfactant

### BENEFITS AT A GLANCE

- Improved thickening performance
- Improved foaming profile
- Preservative-free
- High active betaine concentration

### INCI (PCPC NAME)

Cocamidopropyl Betaine

### CHEMICAL AND PHYSICAL PROPERTIES (NOT PART OF SPECIFICATIONS)

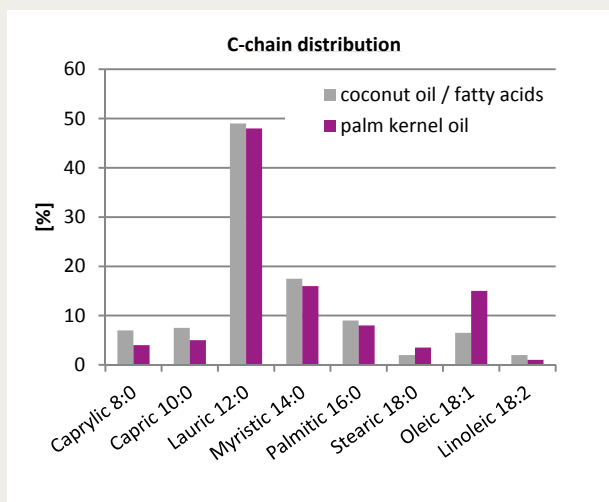
Form	clear, low-viscous; liquid
Color	light
Active matter	approx. 38%

### PROPERTIES

**TEGO® Betain P 50 C** is based on sustainable RSPO certified segregated palm kernel oil.

Compared to Cocamidopropyl Betaine based on coconut oil, **TEGO® Betain P 50 C**

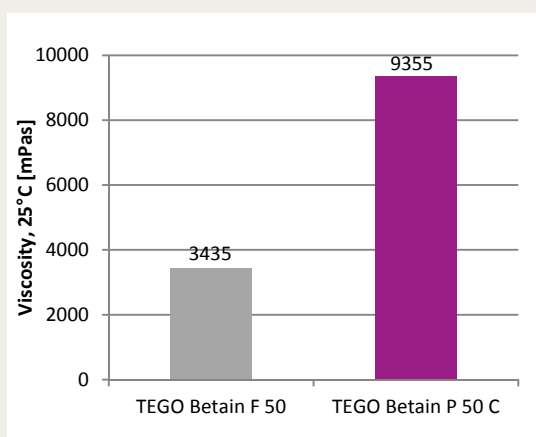
- is more efficient in thickening and foaming due to the slightly different C-chain distribution between coconut oil and palm kernel oil (Figure 1).
- provides better formulation cost ratio to standard formulations.



**Figure 1: typical C-chain distribution of CNO and PKO**

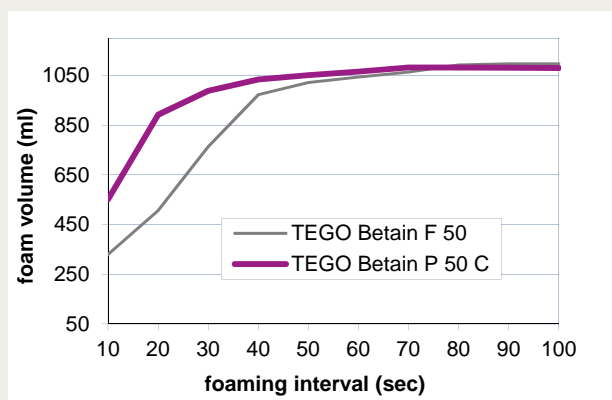
**TEGO® Betain P 50 C** is higher concentrated than common Cocamidopropyl Betaines with 30 % active matter.

**TEGO® Betain P 50 C** also shows a better thickening behaviour compared to TEGO® Betain F 50 (also 38 % a.m.) due to the slightly different C-chain distribution in the starting oil. Figure 2 shows the differences in viscosities of a standard surfactant system. As a result, the level of additional surfactant thickener required can be reduced.



**Figure 2: Thickening behaviour in a standard surfactant system (9.0 % SLES, 3.0 % Betain, 0.5 % NaCl, 2.5 % ANTIL 171, pH 5.5)**

Also in foaming, **TEGO® Betain P 50 C** outperforms **TEGO® Betain F 50**. Figure 3 shows the difference in foam generation / flash foam behaviour.



**Figure 3: Foam generation tested with Sita foam tester (c = 0.5 %, T = 30 °C, Water ~ 10 °dH, pH ~ 6, 1500 rpm)**

## PACKAGING

1.0 kg container

Bulk

## HAZARDOUS GOODS CLASSIFICATION

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
  - protective measures for storage and handling
  - measures in case of accidents and fires
  - toxicity and ecological effects
- is given in our material safety data sheets.

## APPLICATION

**TEGO® Betain P 50 C** can be used as a mild amphoteric surfactant in all products for skin and hair cleansing, such as shampoos, shower and foam baths and liquid soaps.

## GUIDELINE FORMULATIONS

### Low cost liquid soap / body wash UL 5785/1

Sodium Laureth Sulfate, 28%	25.0%
TEGO® Betain P 50 C	6.0%
Water	ad 100.0%
ANTIL® Soft SC (Sorbitan Sesquicaprylate)	0.7%
NaCl	2.0%
Preservative, Perfume	q.s.

#### Preparation:

Blend ingredients in the given order.

Remarks:

pH=5.5; viscosity (Brookfield, 25°C): 5500 mPas.

Low surfactant active level: 9.2%

### Clear hair and body shampoo, PEG- and Sulfate-free UW 998/21

Plantacare 1200 UP (Lauryl Glucoside)	8.8%
VARISOFT® EQ 100 (Quaternium-98 (proposed))	0.5%
ANTIL® SPA 80 (Isostearamide MIPA; Glyceryl Laurate)	1.0%
REWOTERIC® AM C (Sodium Cocoamphoacetate)	12.5%
TEGO® Betain P 50 C	14.9%
Citric Acid, 30%	3.0%
Preservative, Perfume	q.s.

#### Preparation:

Blend ingredients in the given order.

Remarks:

pH=5.5; viscosity (Brookfield, 25°C): 2950 mPas.

#### Disclaimer

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments.

The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used. (Status: April, 2008)

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