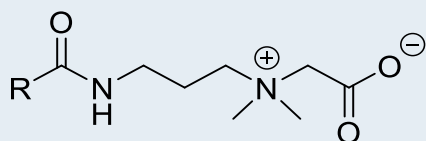


## FutureChem<sup>®</sup> Bio-Betaine

Reduces PKO/Coconut content by 50%



R = Plant Feedstock/Palm Kernel Oil Blend

### Properties

- Primary or secondary surfactant
- Foam booster
- Viscosity builder
- Compatible with anionics, nonionics, and cationics

### Applications

- Bathroom
- Floor
- Hard surface
- Kitchen
- Hand dishwashing detergents
- Vehicle/wheel
- Other HI&I Cleaning

### Typical Specifications

*(Data is representative of average lots; data taken from specific lots may vary)*

	FutureChem <sup>®</sup> Bio-Betaine <sup>1</sup>	CAPB <sup>2</sup>
Appearance at 25° C	Clear liquid	Clear liquid
Solids, %	35	35
Actives, %	30	30
Color, Gardner	3	1
Viscosity at 25° C, cps	160	16
Surface Tension <sup>3</sup> , mN/m	31.6	35.1
Draves Wetting <sup>4</sup> , sec (Classification)	34 (Moderate)	63 (Moderate)
Ross Miles Foam <sup>5</sup> , cm (Classification)	12.4 (initial), 12.2 (5 min) (Moderate)	12.8 (initial), 12.4 (5 min) (Moderate)

<sup>1</sup> Contains ~2.5% Ethanol; <sup>2</sup> Literature values; <sup>3</sup> 1.0 wt%, pH 7-8, 25° C; <sup>4</sup> 0.1% active, pH 7-8, 25° C; <sup>5</sup> 0.1 wt%, pH 7-8, 25° C

**Compared to CAPB, FutureChem<sup>®</sup> Bio-Betaine surfactants have a lower surface tension and increased viscosity to meet complex formulation needs**

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