Technical Data Sheet

COCAMIDOPROPYL BETAINES
(CAB)

Introduction

Cocamidopropyl Betaine (CAB) is an organic compound derived from coconut oil and dimethylaminopropylamine. It is a zwitterion, consisting of both a quaternary ammonium cation and a carboxylate. CAB is available as viscous pale yellow solution that is used as a surfactant in personal care products.

INCI name

Cocamidopropyl Betaine

Registrations

CASR-NO: 61789-40-0
EINECS-NO: 2630588/931-296-8

Chemical structure & Chemical Formula: $\text{C}_{19}\text{H}_{38}\text{N}_2\text{O}_3$

\[
\begin{align*}
\text{O} & \quad \text{CH}_3 \\
\text{R} & \quad \text{N} - (\text{CH}_2)_3 \quad \text{N}^+ \quad \text{CH}_2\text{COO}^- \\
\text{H} & \quad \text{CH}_3 \\
\end{align*}
\]

\(R=\text{C}_{11-17}\text{H}_{23-33}\)

Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>pH value value (5% sol.)</td>
<td>6.0 – 7.0</td>
</tr>
<tr>
<td>Water content</td>
<td>Max. 64 %</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Max. 6.0 %</td>
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<tr>
<td>Sodium sulfate</td>
<td>Max. 1.5 %</td>
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<tr>
<td>Color (Lovibond 5 ¼”)</td>
<td>Max. 3.0Y, 1.0R</td>
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</table>
**Benefits**

- CAB is perfectly compatible with anionic, cationic and nonionic surfactants, it can still be used as cloudy point inhibitor.
- CAB can produce rich and fine foams. Formulated with adequate proportion of anionic surfactant, it has significant thickening effect.
- CAB has excellent tolerance to skin, effectively reduce the irritation caused by fatty alcohol sulfate or fatty alcohol ether sulfate in the products.
- CAB has antibiotic function, being a good additive in personal sanitary products.
- CAB has excellent antistatic function, being an ideal conditioning agent.

**Applications**

CAB is used in cosmetics and personal hygiene products (eg, shampoos, contact lens solutions, toothpaste detergents, makeup removers, bath gels, skin care products, cleansers, liquid soaps, antiseptics, and gynecologic and anal hygiene products).

**Recommended dosage:** 4-40%

**Storage**

In the original sealed containers and at temperature between 0°C and 40°C, this product remains stable at least one year. On account during its high salt content the product can have a corrosive effect during storage in stainless steel tanks.