

CAVAMAX® W6 – NEW WAYS OF STABILIZING COCONUT-MILK POWDER

Description

With today's increasingly busy lifestyles, coconut-milk powder is the convenient version of fresh coconut milk for cooking purposes. In order to ensure adequate mouthfeel and creaminess, sodium caseinate is commonly used in the production process. However, sodium caseinate has its drawbacks. As it is derived from the raw material milk, it is first of all a potentially allergenic ingredient, its price can be quite volatile and it is also a significant cost factor. Consequently, a suitable and more secure alternative is highly valued by the food industry. CAVAMAX® W6 alpha-dextrin can offer an alternative: this plant-based ingredient can reduce the amount of sodium caseinate used, or even replace it entirely.

Functional Properties

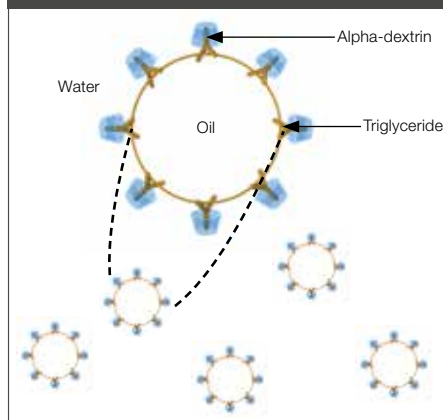
CAVAMAX® W6 is a naturally occurring, soluble dietary fiber, enzymatically derived from starch. It has excellent emulsifying properties and forms stable coconut milk upon reconstitution by interaction with fatty acids. The fatty acid / CAVAMAX® W6 structure stabilizes the reconstituted coconut milk efficiently with the desired creaminess and mouthfeel.



Sample Recipe for Coconut-Milk Powder with 100% Sodium Caseinate Replacement

	Emulsion Content Percentage [%]
Coconut cream / coconut milk (variable fat content)	76.7
Maltodextrin	20.0
CAVAMAX® W6	2.0
Hydrocolloid	0.3
Anticaking agent (if required)	1.0

CAVAMAX® W6 – Stabilization of Oil-in-Water Emulsions



Oil-in-water emulsions can be stabilized by adding CAVAMAX® W6 alpha-dextrin.

What Can CAVAMAX® W6 Do for You?

WACKER's CAVAMAX® W6 gives you a plant-based and non-allergenic solution for replacing sodium caseinate in your coconut-milk powder. This dietary fiber will not impart any taste to the product and is E-number-free. Coconut milk reconstituted from powders with CAVAMAX® W6 is characterized by an excellent mouthfeel and exhibits good stability over time. As

a sodium caseinate replacement alternative, CAVAMAX® W6 can offer competitive cost-in-use, depending on the final product and process.

The emulsifying dietary fiber CAVAMAX® W6 is ideally suited for your coconut-milk powder product.

CAVAMAX® W6 – Key Benefits in Coconut-Milk Powder

- Emulsifying dietary fiber
- Purely vegetarian (vegan on request)
- Sodium caseinate replacement
- Enables dairy-free coconut-milk powder formulations
- Non-allergenic
- Good product stability
- Possible cost savings



Spray-dried coconut-milk powder with CAVAMAX® W6.

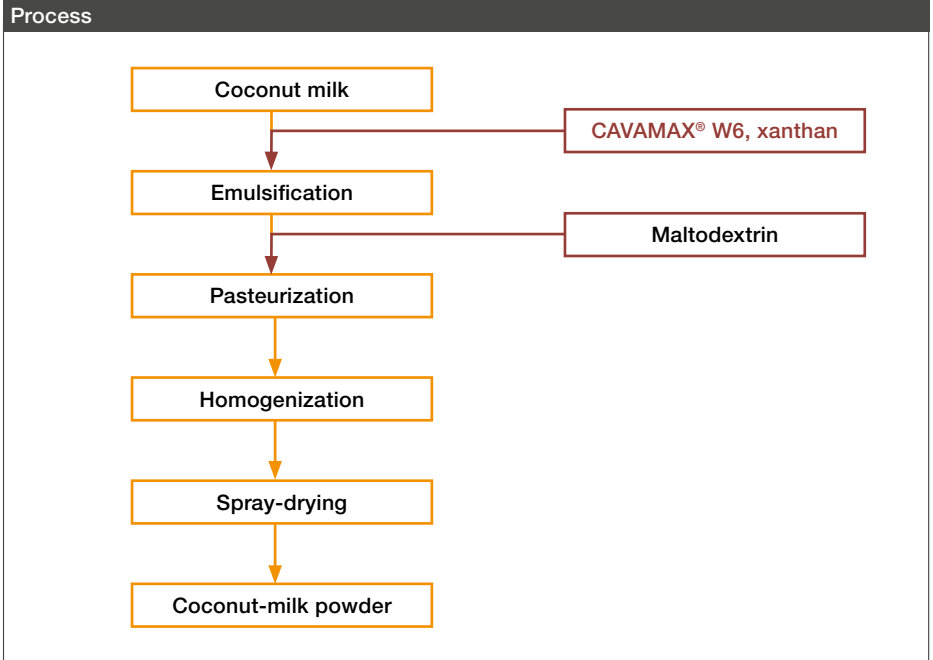
Process

Production with CAVAMAX® W6 is similar to the conventional procedure with sodium caseinate. The proportion of sodium caseinate to be substituted is simply added in the form of CAVAMAX® W6 with a very small amount of hydrocolloid (e.g. xanthan gum). If desired or necessary, an anticaking agent (e.g. tricalcium phosphate) can be added after spray drying.

Application Properties

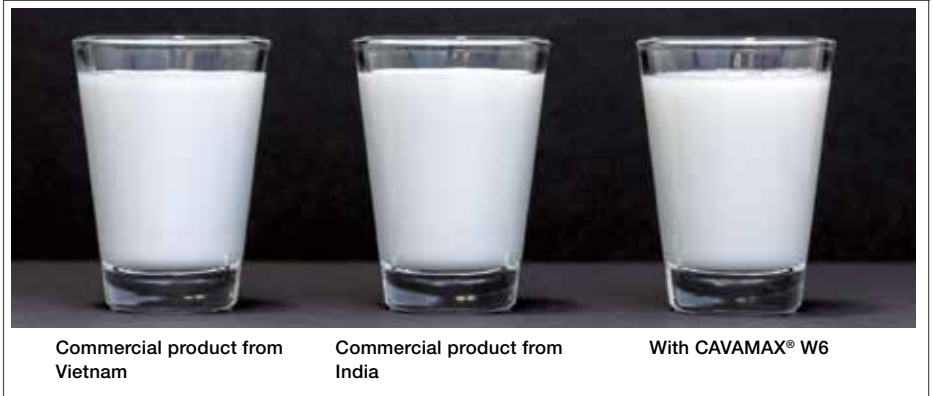
After the addition of lukewarm water, coconut-milk powders with CAVAMAX® W6 yield dairy-free liquid coconut milk with excellent mouthfeel. Furthermore, the stability of the vegan liquid coconut milk is comparable to the stability of available commercial products with sodium caseinate. All samples tested (see picture on right) show no phase separation for up to one hour.

In addition, coconut-milk powder with CAVAMAX® W6 gives a brilliant taste impression and a full body to your curry dishes.



Processing parameters may require optimization in accordance with recipe and equipment.

Comparison of Reconstituted Coconut Milk from the Respective Powdered Products after One Hour



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