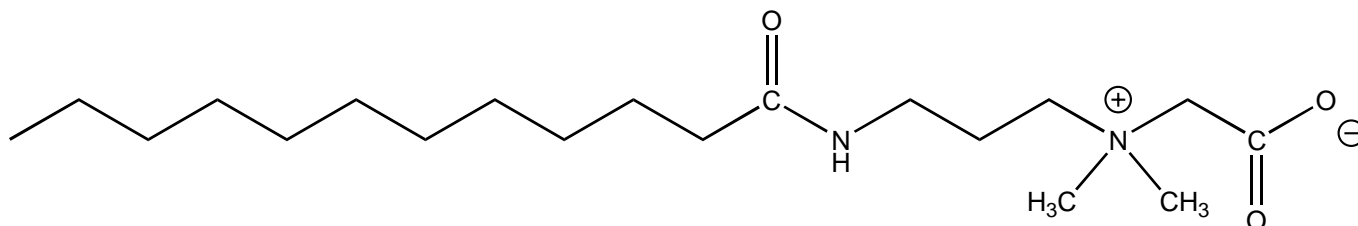


Macat[®] Ultra CG



Cocamidopropyl Betaine

Overview

MACAT ULTRA CG is a 30% active coco (C₁₂) amidopropyl dimethyl glycine (betaine) in water. ULTRA CG is the classic zwitterion surfactant, used as an exceptionally mild cleansing agent, skin conditioner, foam booster and thickener.

The exceptional quality of MACAT ULTRA CG allows for use in a wide range of markets and applications. In **Personal Care**, ULTRA CG is based on the renewable vegetable lipid found in coconut oil, and retaining the natural humectancy of glycerine making it a uniquely natural compliment for use in hair shampoos, conditioners and rinses as a conditioning agent/surfactant.

MACAT ULTRA CG is biodegradable, and contains no solvents or VOCs. ULTRA CG exhibits very low toxicity with an LD₅₀ (Rats) of >5000 mg/kg and at 10% active, causes minimal eye irritation, and not considered a primary dermal irritant.

INCI Name: Cocamidopropyl Betaine.

Typical Properties

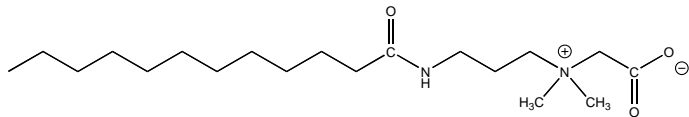
Water solubility	Complete
Physical form	Clear straw colored liquid
Color (Gardner)	1
Actives	30±1.5%
Solids	35±1.5%
Specific gravity (25°C).....	1.04±0.04
pH (10% aq.)	5.5±1.5
Cloud Point	28°F(-2°C)
Pour Point.....	20°F(-7°C)
Flash point.....	>200°F (PMCC)
RVOC, U.S. EPA, %.....	0
Shipping	Non-Red Label

Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

Macat and Masamide are trademarks of Mason Chemical Company.

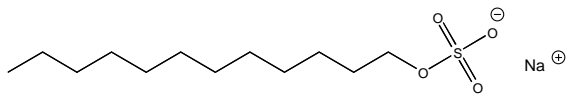
Macat[®] Ultra CG



Betaines are inner salts, or zwitterions of substituted alkyl derivatives of N, N-dimethyl glycine. Macat Ultra CG is a coco glycinate, hence CG. Often characterized as amphoteric surfactants, betaines are actually inner salts, or zwitterions, because the quaternary nitrogen atom always carries a positive charge regardless of pH. Mason Chemical Company produces a full range of C₈-C₂₂ alkyl betaines, and amine oxide surfactants: Macat AO-12 (high C₁₂ dimethyl amine oxide), Macat AO-14 (high C₁₄ dimethyl amine oxide) and Macat Ultra CDO (coconut oil derived C₈₋₁₈ amidopropyl dimethyl amine oxide).

Typically formulated with other surfactants, Macat Ultra CG reduces the irritation of strong anionics such as sodium lauryl sulfate in shampoos, bubble bath and hand

dishwash formulations, where Ultra CG is used to boost and stabilize foam, increase viscosity and improve rinsability. When used in conditioning shampoos, Ultra CG imparts a conditioning effect with improved slip, sheen and comb-out to the hair. Macat



Sodium Lauryl Sulfate

Ultra CG is compatible with anionic, cationic and nonionic surfactants.

MACAT ULTRA CG is a 30% active coco (C₁₂) amidopropyl dimethyl glycine (betaine) in water. ULTRA CG is an ultra-mild, yet effective cleansing agent, viscosity builder, and outstanding foam booster useful in a wide range of applications. The formulations below illustrate this effect.

Economical Shampoo

Ingredient	Wt%
Water.....	79.07
Ammonium Lauryl Sulfate, 30%.....	10.0
Ammonium Lauryl Ether Sulfate, 60%.....	5.0
Macat Ultra CG	2.0
Masamide R-4 ⁽¹⁾	0.5
Citric acid ⁽²⁾	0.08
Ammonium Sulfate ⁽³⁾	0.35
Sodium Citrate ⁽³⁾	3.0
Dye & Fragrance	q.s.

Note
Mix in order listed.
Macat ULTRA CG is an effective foam booster in this pH neutral, mild shampoo.
(1) PEG-4 Rapeseedamide
(2) Adjust pH to skin mild 6-7
(3) Build viscosity