



VERDANT



BEAUTY & PERSONAL CARE

PRODUCT GUIDE

INTRODUCTION

Beauty is feeling great in your own skin. It's about taking care of yourself, mind and body. It's also about exploring identity and integrity. Today people expect brands to push the boundaries of personal care in pursuit of more sustainable, socially responsible and inclusive products.

The skin and hair are where your formulation and the consumer meet. It's where the experience happens. Every ingredient affects how a product feels to the touch, satisfies the senses and creates a sense of wellness.

Our formulations experts work side by side with beauty brands all over the world to achieve the ideal blend of beauty, wellness and sustainability. Let us help you design winning products with our mild surfactants and specialty solutions.

WHAT'S IN THIS GUIDE

You will find our range of surfactants and other specialty ingredients for hair care, skin care, body care and baby care applications including:

- *Vegan solutions made with coconut, babassu, wheat germ and other natural, plant-based sources*
- *The Renewable Carbon Index (RCI*) of every product*
- *Mass Balanced Products (where applicable)*

You can be confident that every product in this guide meets the regulatory requirements for its recommended uses and is made in a way that minimizes environmental impact.

OUR PROMISE

When you work with Verdant, you will receive the personal attention you would expect from a small company with the industry-leading safety, environmental performance and reliability you expect from a large company.

* RCI, % = Percentage of Carbons from Renewable (ISO 16128) Source



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Because You
Are Beautiful...

...and we love being part of it.

AMPHOTERICS

MACKAM® Amphopropionates and Amphoacetates

Amphoterics are gentle, high foaming surfactants that cleanse and have conditioning properties on skin and hair. They improve mildness and reduce the irritation potential of other surfactants such as anionics. They are ideal for sensitive skin and baby shampoo formulations.

Product Name	INCI Name	Preservative	Natural Source	Active, %	RCI, %	Properties & Applications
MACKAM® 2CSF-40CG	Disodium Cocoamphodipropionate	None	Coconut, Palm Kernel*	40	57	Salt-free grade that helps solubilize conditioning agents into shampoos and body washes. This high foaming surfactant makes it an ideal choice when formulating mild shampoos and cleansers such as neutralizing shampoos and facial cleansers.
MACKAM® ULTRA C-32	Sodium Cocoamphoacetate	None	Coconut, Palm Kernel*	30	70	These high-purity, preservative-free amphoteric surfactants are suggested as a mild component for personal care formulations. They are recommended for baby shampoo or body wash, provide rich foam, and have low irritation properties.
MACKAM® HPC 32 L	Sodium Cocoamphoacetate	None	Coconut, Palm Kernel*	30	70	
MACKAM® IC	Sodium Cocoamphoacetate	None	Coconut, Palm Kernel*	40	70	
MACKAM® HPL 28	Sodium Lauroamphoacetate	None	Coconut, Palm Kernel*	30	66	Demonstrates enhanced foam stability in the presence of oils and efficient viscosity building in sulfate-free and amide-free formulations compared to Sodium Cocoamphoacetate.
MACKAM® ULTRA L-32E	Sodium Lauroamphoacetate	None	Coconut, Palm Kernel*	30	66	
MACKAM® C2M CONC NP	Disodium Cocoamphodiacetate	None	Coconut, Palm Kernel*	38	70	Provides good foaming performance in soft and hard water, as well as in the presence of oils. Recommended in baby shampoos and hospital cleansers, and leaves a pleasant hair and skin feel. MACKAM® 2C 75 is a low viscosity grade to make it even easier to handle.
MACKAM® 2C	Disodium Cocoamphodiacetate	None	Coconut	38	70	
MACKAM® 2C 75	Disodium Cocoamphodiacetate	None	Coconut	38	70	
MACKAM® 2W	Disodium Wheatgerm- amphodiacetate	None	Wheat Germ	25	70	Based on wheat germ & soybean oils with higher molecular weight C18 carbon chains, these amphoacetates are even more mild to skin and eyes than coconut or palm kernel (C-12) derived amphoterics. These grades also develop more viscosity than C12 derived amphoterics.
MACKAM® 2S	Disodium Soyamphodiacetate	None	Soybean	28	70	

* MB: Mass Balanced Grades Available

AMPHOTERICIS

MACKAM® Betaines

Betaines are foaming agents used to increase mildness, foam, and viscosity in surfactant systems. They are used as cleansing agents in shampoos, face & body cleansers and toothpaste. They have been the go-to amphoteric surfactant for decades.

Product Name	INCI Name	Preservative	Natural Source	Active, %	RCI, %	Properties & Applications
MACKAM® BAB	Babassuamidopropyl Betaine	Sodium Benzoate	Babassu	30	66	Derived from Amazonian babassu oil and has similar properties to Cocamidopropyl Betaine.
MACKAM® BB 30	Babassuamidopropyl Betaine	Sodium Benzoate	Organically Certified Babassu	30	66	Derived from organically grown, Amazonian babassu oil.
MACKAM® 35	Cocamidopropyl Betaine	None	Coconut	30	66	Industry standard grade of Cocamidopropyl Betaine. MACKAM® 35 HA is high pH grade for optimal product stability.
MACKAM® 35 HA	Cocamidopropyl Betaine	None	Coconut	30	66	
MACKAM® 35UL	Cocamidopropyl Betaine	None	Coconut	30	66	Light colored grades with no unsaturation
MACKAM® CAB 818	Cocamidopropyl Betaine	None	Coconut	30	66	
MACKAM® BET C 30	Cocamidopropyl Betaine	CIT/MIT	Coconut	30	66	
MACKAM® 35UL HA	Cocamidopropyl Betaine	None	Coconut	30	66	High pH for optimal product stability. EDTA-free grade.
MACKAM® CAB 818U	Cocamidopropyl Betaine	None	Coconut	30	66	
MACKAM® 50ULB	Cocamidopropyl Betaine	None	Coconut	38	63	High active, light colored grade with no unsaturation, 25% more concentrated than MACKAM® 35 UL .
MACKAM® C37	Cocamidopropyl Betaine	Sodium Benzoate, Benzyl Alcohol	Coconut, Palm Kernel*	30	67	High purity grade with "stripped" alkyl distribution for superior viscosity building and foam.
MACKAM® C37B	Cocamidopropyl Betaine	Sodium Benzoate	Coconut, Palm Kernel*	30	67	
MACKAM® BET O 30	Oleamidopropyl Betaine	None	Peanut Oil	30	35	Specially developed to impart unique conditioning benefits to the hair and skin. MACKAM® BET O 30 contributes a rich, creamy lather.

AMPHOTERICS

Product Name	INCI Name	Preservative	Natural Source	Active, %	RCI, %	Properties & Applications
MACKAM® LMB K	Lauramidopropyl Betaine	CIT/MIT	Coconut, Palm Kernel*	30	63	High performance grade based on pure vegetable derived lauric acid. Has superior foam properties over Cocamidopropyl Betaine.
MACKAM® DAB	Lauramidopropyl Betaine	None	Coconut, Palm kernel*	30	63	
MACKAM® BB/FLA	Coco-Betaine	None	Coconut, Palm Kernel*	30	76	Low odor, preservative free, and stable in low pH range. It also has great viscosity building and foam properties. Suitable for AHA cleansers and neutralizing shampoos.
MACKAM® CB 35	Coco-Betaine	None	Coconut, Palm Kernel*	30	76	
MACKAM® LAB	Lauryl Betaine	None	Coconut, Palm Kernel*	30	76	Low odor, preservative free, and stable in low pH range. It has great viscosity building properties and superior foam properties compared to Coco-Betaine.
MACKAM® LB 35	Lauryl Betaine	None	Coconut, Palm Kernel*	30	76	
MACKAM® 1200 Powder	Lauramidopropyl Betaine	None	Coconut, Palm Kernel*	85	63	For use in shampoo or bath bars and also finds application in oral care.
MACKAM® 2800 Powder	Cocamidopropyl Betaine	None	Coconut	85	67	Excellent choices for no/low water formulations.

* MB: Mass Balanced Grades Available



AMPHOTERICS

MACKAM® Sultaines

Sultaines are growing in popularity as primary surfactants and as betaine replacements. They are used to increase mildness, foam, and viscosity in surfactant systems. They are high active and do not contain preservatives making them an ideal choice for sustainable face & body cleansers and shampoo formulations.

Product Name	INCI Name	Preservative	Natural Source	Active, %	RCI, %	Properties & Applications
MACKAM® CBS 50G E	Cocamidopropyl Hydroxysultaine	None	Coconut	40	63	Readily biodegradable, coconut oil derived sultaines. Sultaines are an excellent alternative to more traditional secondary surfactants with similar, yet broader, salt thickening. Cold process and Prop 65-free makes it ideal for today's formulations.
MACKAM® 50 SB	Cocamidopropyl Hydroxysultaine	None	Coconut, Palm Kernel*	42	63	Low odor and color grades of Cocamidopropyl Hydroxysultaine, these grades are glycerin free and have greater viscosity building than MACKAM® CBS 50G E .
MACKAM® CBS	Cocamidopropyl Hydroxysultaine	None	Coconut, Palm Kernel*	42	63	
MACKAM® LSB 50	Lauramidopropyl Hydroxysultaine	None	Coconut, Palm Kernel*	41	60	Enhanced foam properties, better flash foam and viscosity building than similar betaines, and greater foaming characteristics over MACKAM® 50 SB & MACKAM® CBS . It is produced from a high grade of lauric acid.
MACKAM® LHS E	Lauryl Hydroxysultaine	None	Coconut, Palm Kernel*	41	71	Stable in low pH systems making it suitable for AHA cleansers and neutralizing shampoos.

* MB: Mass Balanced Grades Available





AMPHOTERICS

MACKAMINE® Amine Oxides

Amine oxides are salt-free mild cleansers that have conditioning properties below pH 7.0. They are used in shampoos as well as face, hand and body cleansers for their ability to enhance foam and viscosity.

Product Name	INCI Name	Preservative	Natural Source	Active, %	RCI, %	Properties & Applications
MACKAMINE® CAO	Cocamidopropylamine Oxide	None	Coconut	30	73	Provides excellent viscosity building, foam boosting and foam stability properties in a wide spectrum of formulations.
MACKAMINE® CAO E 36	Cocamidopropylamine Oxide	None	Coconut, Palm Kernel*	30	73	Has conditioning properties in low pH systems and is salt free.
MACKAMINE® FB 48	Lauramidopropylamine Oxide	None	Coconut, Palm Kernel*	30	72	Similar to Cocamidopropylamine Oxide with enhanced foam generation due to optimized carbon distribution.
MACKAMINE® LO	Lauramine Oxide	None	Coconut, Palm Kernel*	30	86	Similar to above with enhanced viscosity and foam properties.
MACKAMINE® LA	Lauramine Oxide	None	Coconut, Palm Kernel*	30	86	Both are vegetable derived.

* MB: Mass Balanced Grades Available

MACKESTER® Glycol Esters

Glycol esters are used as pearling agents in surfactant systems such as hand soaps, shampoos and body wash and emulsifiers in lotions, creams and hair conditioners.

Product Name	INCI Name	Preservative	Natural Source	Melting Point, °C	RCI, %	Properties & Applications
MACKESTER® EGDS	Glycol Distearate	None	None	67	0	Glycol distearates are highly effective in high solids formulations. Verdant's MACKESTER® product range delivers a high shine pearlescence when formulated in shampoos and face & body wash formulations. Used as an emulsifier in lotions and creams.
MACKESTER® 515 V	Glycol Distearate	None	Palm	65	93	
MACKESTER® GDSV	Glycol Distearate	None	Palm	69	93	
MACKESTER® EGMS 6051	Glycol Stearate	None	None	59	0	Developed for opacifying and pearling shampoos and face & body wash formulations. Used as an emulsifier in lotions and creams.
MACKESTER® GSTP	Glycol Stearate	None	None	56	0	
MACKESTER® GSV	Glycol Stearate	None	Palm	64	85	



MACKAMIDE® Amides

Alkanolamides enhance the viscosity response, foam stability and foam density in anionic based systems. Their high solids content makes them suitable for solid cleansing formats such as shampoo bars and bar soap formulations.

Product Name	INCI Name	Preservative	Natural Source	Melting Point, °C	RCI, %	Properties & Applications
MACKAMIDE® CMA	Cocamide MEA	None	Coconut	62	87	Highly effective viscosity builder and boosts and stabilizes foam in anionic surfactants based cleansers. Suitable for liquid and bar soap applications.
MACKAMIDE® LMA	Lauramide MEA	None	Coconut, Palm Kernel*	85	86	High purity lauric derived foam stabilizer and thickening agent for anionic based cleansers.
MACKAMIDE® CPA	Cocamide MIPA	None	Coconut	51	83	Optimized chain length amide for high performance applications. Aids in emulsifying small amounts of oil and DEA-free.
MACKAMIDE® LPA	Lauramide MIPA	None	Coconut, Palm Kernel*	55	80	Possesses better solubility than Lauramide MEA. Glycerin and DEA- free.
MACKAMIDE® SMV	Stearamide MEA	None	Palm	-95	90	Opacifying agent for aqueous based cleansers. Functions synergistically with Glycol Stearate to bring intense pearlescence.

* MB: Mass Balanced Grades Available





NONIONICS

MACKAMIDE® Skin Moisturizing Humectants

Skin moisturizing alkanolamides are humectants that function similarly to molecules that comprise the natural moisturizing factor found in human skin. They provide moisturizing and a non-tacky feel at low usage levels in cleansers, lotions and creams.

Product Name	INCI Name	Preservative	Natural Source	Solids, %	RCI, %	Properties & Applications
MACKAMIDE® LME	Lactamide MEA	None	None	100	0	Excellent humectant & skin conditioner for use in non-oily skin lotions and hair care. Unlike Glycerin, MACKAMIDE® LME provides a light conditioning and non-tacky feel to the skin and hair and has a very light color and odor.
MACKAMIDE® AME 100	Acetamide MEA	None	None	100	0	Excellent moisturizing properties with stronger humectancy than Glycerin. Useful in hair and skin care applications as a humectant.
MACKAMIDE® LAME	Lactamide MEA Acetamide MEA	None	None	100	0	Superior humectant blend for use in hair and skin care formulations and combines the properties of both Acetamide MEA and Lactamide MEA.

MACKERNIUM® & MACKINE® Conditioning Agents

Cationic surfactants are used to impart conditioning, combability and lubricity to a wide variety of formulations. The following conditioning agents can be used in shampoos, conditioners, and hair masks for all hair types. They can also be used to impart a nice skin feel and foam creaminess in hand and body wash formulations.

Product Name	INCI Name	Preservative	Natural Source	Solids, %	RCI, %	Properties & Applications
MACKERNIUM® CCI12 P9	Isostearamidopropyl Ethyldimonium Ethosulfate & PEG-9	None	Rapeseed	75	74	Effective, anionic compatible quaternary compound to add lubricity and antistatic properties. Clear conditioning shampoos and body cleansers are easily formulated.
MACKERNIUM® SDC 85	Stearalkonium Chloride	None	Palm	85	86	High active, flaked form of Stearalkonium Chloride, it is easier to handle compared to low active pastes. Preservative-free and contains no animal derivatives.
MACKINE® 301U	Stearamidopropyl Dimethylamine	None	Palm*	100	78	Provides excellent conditioning and combability when formulated in liquid conditioners, crème rinses and cream conditioners. Recommended for light hair feel and fine hair.

* MB: Mass Balanced Grades Available



PERFORMANCE SYSTEMS

We strive to create the most sustainable and environmentally friendly products on the market. The following sustainable, concentrated systems allow formulators to create cost-effective, high quality products with significantly less environmental impact. These formulated systems meet a variety of sustainable criteria relevant to environmental health and protection. This includes cold processing to save energy, less waste and disposal, concentrated systems to reduce emissions associated with transportation, and less waste with reduced packaging.

MACKAM® Cold-Processable Liquid Amides

Product Name	INCI Name	Preservative	Natural Source	Solids, %	Properties & Applications
MACKAM® BC 39	Cocamidopropyl Betaine and Cocamide MEA	DMDM Hydantoin	Coconut, Palm Kernel*	39	These amide-ampholyte blends are easy-to-use alternatives to the high melting point CMEA. They boost and stabilize foam while improving viscosity of anionic systems. No heat is required to formulate this type of ingredient, and they can be used at the end of the process as a final viscosity adjuster. Ability to replace two components in a formulation.
MACKADET® BC 51	Cocamide MEA and Coco-Betaine	None	Coconut, Palm Kernel*	50	

MACKPEARL® Liquid Pearlizers

Product Name	INCI Name	Preservative	Natural Source	Solids, %	Properties & Applications
MACKPEARL® SSO	Glycol Distearate, Sodium Laureth Sulfate, Cocamide MEA, Laureth-10	Formic Acid	Coconut, Palm Kernel*	46	These liquid pearlizers are designed for easy dispersibility at ambient temperature. They easily deliver high shine and pearlescence to surfactant formulations. MACKPEARL® SSE is sulfate-free.
MACKPEARL® HG 178	Glycol Distearate, Sodium Laureth Sulfate, Cocamide MEA, Laureth-10	Formic Acid	Coconut, Palm Kernel*	48	
MACKPEARL® SSE	Sodium C14-16 Olefin Sulfonate, Glycol Stearate, Cocamidopropyl Betaine	CIT/MIT	Coconut, Palm Kernel*	43	

MACKADET® Performance Concentrates

Product Name	INCI Name	Preservative	Natural Source	Solids, %	Properties & Applications
MACKADET® 40-K	Potassium Cocoate	None	Coconut	46	Biodegradable and naturally derived. This high lathering liquid coconut-based soap is ideal for cost effective liquid hand wash and body wash formulations.
MACKADET® EQ 112K	Water, Cocamidopropyl Betaine, PEG-80 Sorbitan Laurate, Sodium Trideceth Sulfate, PEG-150 Distearate	CIT/MIT	Coconut, Corn, Palm Kernel, Palm	36-40	Ultra mild and cost-effective systems designed for skin cleansers and baby shampoos with "tear-free" claims. Proven low eye irritation (HET-CAM tests).
MACKADET® EQ 70 BR	Water, PEG-80 Sorbitan Laurate, Cocamidopropyl Betaine, Sodium Trideceth Sulfate*, Sodium Lauroamphoacetate, PEG-150 Distearate, Sodium Laureth-13 Carboxylate	DMDM Hydantoin	Coconut, Corn, Palm Kernel, Palm	42-45	

* Sodium Trideceth Sulfate is synthetic based



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Cocamide MIPA	MACKAMIDE® CPA	11
Cocamidopropylamine Oxide	MACKAMINE® CAO MACKAMINE® CAO E 36	9
Cocamidopropyl Betaine	MACKAM® 35 MACKAM® 35 HA MACKAM® 35UL MACKAM® CAB 818 MACKAM® BET C 30 MACKAM® 35UL HA MACKAM® CAB 818U MACKAM® 50ULB MACKAM® C37 MACKAM® C37B	6
Cocamidopropyl Betaine and Cocamide MEA	MACKAM® BC 39	14
Cocamidopropyl Hydroxysultaine	MACKAM® CBS 50G E MACKAM® 50 SB MACKAM® CBS	8
Coco-Betaine	MACKAM® CB 35 MACKAM® BB/FLA	6
Disodium Cocoamphodiacetate	MACKAM® C2M CONC NP MACKAM® 2C MACKAM® 2C 75	5
Disodium Cocoamphodipropionate	MACKAM® 2CSF-40CG	5
Disodium Soyamphodiacetate	MACKAM® 2S	5
Disodium Wheatgermamphodiacetate	MACKAM® 2W	5
Glycol Distearate	MACKESTER® EGDS MACKESTER® 515 V MACKESTER® GDSV	10
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	MACKAM® ULTRA L-32E	
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Water, PEG-80 Sorbitan Laurate, Cocamidopropyl Betaine, Sodium Trideceth Sulfate, Sodium Lauroamphoacetate, PEG-150	MACKADET® EQ 70 BR	15

VERDANT SPECIALTY SOLUTIONS
Creating Solutions for the Future

www.verdantspecialty.com

With a network of industrial, technological and market experts all over the world, we support our customers by focusing on value and global supply chain optimization as well as providing cost-competitive innovations and customized solutions.



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