RITA CORPORATION

EMULSIFIERS

COMMITMENT · VISION · PROGRESS

RITA CORP

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www.ritacorp.com

850 S IL Route 31

Crystal Lake, IL 60014

815-337-2500

rdlab@ritacorp.com

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GENERAL PRODUCT LISTING

Methyl Glucose Esters

Acritamers - Carbomers

Emollients

Natural Butters

Emulsifiers

Ritamulse SCG - natural emulsifier

Glycol and Glyceryl Esters

Cationic Compounds, Conditioning and Styling Aids

Ritafactants with Lactylate - sulfate free surfactants

Ritafactants - sugar and amino acids based surfactants

Ritafactants - Anhydrous surfactant blends

Ritapan - Panthenol

Natural Oils

Natural Butters

Lanolin and Lanolin Derivatives

EMULSIFIERS

The RITA emulsifying wax products are a specialty group of emulsifiers that can be used for Cosmetics, Toiletries, Pharmaceuticals and Household products. These products are waxy materials that work as excellent sole emulsifiers, opacifiers, thickeners and stabilizers in oil/water emulsions. RITACHOL and RITAPRO emulsifying waxes contain both the gel network formers (fatty alcohol or glyceryl stearate) based co-emulsifiers along with the ethoxylated fatty components as the primary emulsifiers to make up a complete balanced emulsification package. They can also be used in conjunction with other emulsifiers to add stability or desired skin feeling if needed. They are well known products with a proven track record of producing stable o/w emulsions with excellent stability and conditioning properties.

PHYSICAL PRROPERTIES	RITACHOL 1000	RITACHOL 2000	RITACHOL 5000	RITAPRO 165	RITAPRO 200	RITAPRO 300	RITAMULSE AG55*	RITAMULSE SCG*
INCI NAME	Cetearyl Alcohol, Polysorbate 60, PEG-150 Stearate, Steareth 20	Cetearyl Alcohol, Polysorbate 60	Cetearyl Alcohol, Polysorbate 60, PEG 150 Stearate, Cetyl Alcohol, Ceteareth 20, PEG 20 Hydrogenated Lanolin, PEG 40 Stearate	Glyceryl Stearate, PEG 100 Stearate	Stearyl Alcohol, Ceteareth-20	Cetearyl Alcohol, Ceteareth-20	Acrylamide/ Sodium Acrylate Copolymer, C13-14 Isoparaffin, Laureth-7	Glyceryl Stearate, Cetearyl Alcohol, Sodium Stearoyl Lactylate
APPEARANCE	White flake	White flake	White flake	White flake	White flake	White flake	Viscous yellow liquid	White flake
ACID VALUE	0.5 Max	5 Max	1 Max	1 Max	1 Max	3 Max	0.1 Max	20 Max
SAPONIFICATION VALUE	169-182	109-120	202-212	183-193	146-158	101-111	300-315	125-150
MELT POINT, °C	N/A	43-47	N/A	N/A	N/A	53-55	N/A	N/A

RITACHOL Series

RITACHOL 1000

RITACHOL 1000 is a nonionic white, waxy material with low odor, providing an ideal emulsifier for cosmetics, toiletries, pharmaceuticals, and household specialties. RITACHOL 1000 can be used as a primary emulsifier and, in many cases, the sole emulsifying agent in a product. Because it is nonionic in nature, it is compatible with a broad range of materials used in cosmetics and toiletries, such as surfactants, fatty esters, fatty alcohols and fatty acids.

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EMULSIFIERS

RITACHOL 1000:

RITACHOL 1000 has excellent electrolyte tolerance, as well as stability over a broad pH range. Because of this, RITACHOL 1000 can be used in a variety of products, such as skin treatment creams and lotions. It should also be considered for use as an emulsifying agent in hair treatment products, such as conditioners, straighteners, perms, tints, and dyes. Because of its electrolyte tolerance, RITACHOL 1000 offers stable emulsions with antiperspirant-related materials, such as aluminum chlorohydrate. Extreme pH hair conditioners, depilatories and peroxide bleaches can also be successfully formulated with RITACHOL 1000.

RITACHOL 1000 can be considered as a replacement for glyceryl monostearate, diglycol stearate and propylene and ethylene glycol stearates.

Emulsions produced with RITACHOL 1000 are creamy white and extremely stable over extended periods of time (longer shelf life).

RITACHOL 2000:

RITACHOL 2000 is a white, waxy material, an ideal emulsifier for cosmetics and pharmaceuticals that does not require the aid of other emulsifiers. This nonionic emulsifier withstands temperatures up to 130°C without deterioration. Systems with RITACHOL 2000 do not require the aid of additional emulsifiers or surfactants to make a stable emulsion.

It may be used to emulsify other waxes or fats and oils that usually prove to be difficult to emulsify. It can also be used in products like liquid make-up, where suspended pigment is part of the formulation. This product also shows excellent stability in both acidic and basic media. It has a working pH range from 3 - 13. When used in at 5-12% concentration, it produces thick, stable emulsions, which do not require additional thickening agents.

For maximum stability, it is recommended that the RITACHOL 2000 be mixed into the oil phase of a formulation at 60-75°C before it is added to the aqueous phase during manufacture.
It can also be used in powder suspension formulations. RITACHOL 2000 is an equivalent analog to Emulsifying Wax NF

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EMULSIFIERS

RITACHOL 5000

RITACHOL 5000 is a unique blend of ingredients acting as an emulsifier to produce very stable emulsions. It is a nonionic emulsifying wax that is compatible with a wide range of materials used in cosmetics, pharmaceutical and industrial products. RITACHOL 5000 has excellent electrolye tolerance and can be used over a very broad pH range from very acidic to very basic. RITACHOL 5000 can be used as a primary emulsifier and thickener. It is compatible with nonionic, cationic, or anionic emulsifiers and active ingredients.

It is ideally suited for hair relaxer systems where the dual problem of electrolytes and pH reduce stability of the emulsion. In relaxers, the emolliency of RITACHOL 5000 protects the scalp. Its fatty alcohol composition is non-irritating and reduces the drying effect that relaxers have on both hair and scalp. RITACHOL 5000 is a complete base for extreme emulsion conditions.

RITAPRO Series

RITAPRO 165, 200, 300

RITAPRO 165, 200, and 300 are odorless ethoxylated fatty alcohol or white fatty alcohol blends that serve as excellent emulsifiers in oil-in-water systems. They form highly stable emulsions with excellent appearance and feel and are compatible with a wide range of ingredients and stable over a broad pH range. The Ritapro 200 and 300 are used just like the Ritachol emulsifying waxes and some formulators prefer the different skin feel imparted by the ethoxylated fatty alcohols; they can add a different slippery skin feel compared to the Ritachol emulsifiers.

The RITAPRO 165 is a very economical, acid-stable self- emulsifying form of Glycerol Stearate. This product is used primarily as an emulsifier for creams and lotions containing polar oils and waxes. Ritapro 165 also works well with acidic actives and can be formulated into systems ranging in pH from 4.5 to 5.The recommended use level for the Ritapro 165 is typically 2-5% for lotions or cleansing systems, and from 5-20% in creams.

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EMULSIFIERS

Typical application areas for the Ritapro 165 are:

- Cleansing systems
- Creams and Lotions
- Antiperspirants
- Massage Creams and Lotions
- Conditioners

Formulating with RITACHOLS and RITAPROS

Emulsions utilizing the RITACHOL and RITAPRO products are easily prepared by melting out the product into the oil phase and heating to 70-80C. Heat the water phase to 70 -80 C and add the water phase to the oil phase using mechanical agitation.Continue to stir the emulsion and cool down to just above the solidification point of the cream or lotion.Homogenization is not necessary but can be preformed if desired. A preservative should always be added to protect against bacterial growth.

Rita Corporation also offers a polymeric emulsifier named Ritamulse AG55 and an all -natural Fatty Alcohol/Glyceryl Stearate blend with Sodium Stearoyl Lactylate named Ritamulse SCG. Additional information on these emulsifiers can be found in dedicated brochures for each product.

APPLICATIONS

Relaxers/straighteners
Skin care creams and lotions
Depilatories
Baby creams and lotions
Antiperspirants and Deodorants
Hair Conditioners
Color Cosmetics
Sun Care products
Hair Bleaches
Hair Color products
After-sun products
Feet, hand, and nail conditioners
Body Polish
Treatments

CLAIMS (DEPENDENT ON PRODUCT)

Electrolyte tolerance
Stable oil-in-water emulsions
Reduce stickiness and tackiness
Improves rub-out
Stable Relaxer systems
Relaxer formulations without homogenization
Mild

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Emulsifiers

MEDIUM HOLD
HAIR PASTE

DI Water	Q.S. to 100%
Esaflor HM22 C18-22 HydroxyAlkyl Hydroxypropyl Guar	**0.22%**
Ritasil SW 3070 Cetyl Dimethicone	**3.00%**
Rita Cetearyl Alcohol 50/50 Cetearyl Alcohol	**8.00%**
Ritamollient CCT Caprylic/Capric Triglyceride	**2.50%**
Ritaceti Cetyl Esters	**3.00%**
Ritapro 300 Cetearyl Alcohol, Ceteareth-20	**1.50%**
Ritamollient TN C12-15 Alkyl Benzoate	**2.50%**
Shebu WS PEG-50 Shea Butter	**2.00%**
Beeswax Beeswax	**3.00%**
Cocoa Butter NF Theobroma Cacao (Cocoa) Seed Butter	**2.00%**
Butylene Glycol Butylene Glycol	**2.00%**
Phenoxyethanol Phenoxyethanol	**1.00%**

HAIR
RELAXER

DI Water	Q.S. to 100%
White Petrolan Petrolatum	**14.00%**
Mineral Oil 70 Mineral Oil	**12.00%**
Ritachol 5000 Cetearyl Alcohol, Polysorbate 60, PEG-150 Stearate, Ceteareth-20, PEG-20 Hydrogenated Lanolin, PEG-40 Stearate	**11.00%**
Laneto 50 PEG-75 Lanolin	**1.00%**
Propylene Glycol Propylene Glycol	**5.00%**
Sodium Hydroxide, 20%	**0.88%**

WHIPPED
BODY BUTTER

DI Water	Q.S. to 100%
Esaflor HM22 C18-22 Hydroxy Alkyl Hydroxypropyl Guar	**0.10%**
Rita Glycerin, USP Glycerin	**3.00%**
Ritachol 2000 Cetearyl Alcohol, Polysorbate 60	**3.00%**
Ritapro 165 Glyceryl Stearate, PEG 100 Stearate	**5.00%**
Luxtra Pure C32-54 Isoalkane	**5.00%**
Rita Coconut Oil 76 Cocos Nucifera (Coconut) Oil	**2.00%**
Cocoa Butter NF Theobroma Cacao (Cocoa) Seed Butter	**1.00%**
Ritasil DM 350 cst Dimethicone	**0.25%**
Ritamulse AG55 Acrylamide/ Sodium Acrylate Copolymer, C13-14 Isoparaffin, Laureth-7	**2.00%**
Phenoxyethanol Phenoxyethanol	**1.00%**

HAIR
CONDITIONER

DI Water	**Q.S. to 100%**
Esaflor EC4 Guar Hydroxypropyltrimonium Chloride	**0.30%**
Glycerin, USP Glycerin	**3.00%**
BTAC 228 Behentrimonium Chloride	**1.50%**
Rita SA Stearyl Alcohol	**5.00%**
Ritachol 1000 Cetearyl Alcohol, Polysorbate 60, PEG-150 Stearate, Steareth-20	**3.00%**
Argan Oil Argania Spinosa Kernel Oil	**1.00%**
Vegetamide 18-MEA NJS Cetearamidoethyl Diethonium Succinoyl Hydrolyzed Pea Protein	**1.00%**
Amitose R Dihydroxypropyl Arginine HCl	**1.00%**
Ritasil 949 Amodimethicone, Trideceth-12, Cetrimonium Chloride	**1.50%**
Rita G-26 Glycereth-26	**0.50%**
Ritapan DL Panthenol	**0.20%**
Ormagel XPU PE Hypnea Musciformis Extract, Gellidiela Acerosa Extract, Sargassum Filipendula Extract, Sorbitol	**1.00%**
Phenoxyethanol Phenoxyethanol	**1.00%**

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Eco-Friendly Meets Zero Waste Innovation

Substantially Anhydrous Surfactants

Low water, specialty surfactants ideal for use in water-soluble pre-dosed applications.
Free from sulfates, preservatives, parabens, dioxane, phthalates, silicones, PEGs and EO.

- Green & Clean
- Plant-based Ingredients
- High Foaming
- USDA Biobased Certified
- RSPO MB Certified Palm
- NO PROP 65 Substances
- Readily Biodegradable

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USDA CERTIFIED BIOBASED PRODUCT