



EASTMAN

Confidence for *any* schedule

Hair care, skin care, and color cosmetics
formulations with Eastman
long-wear ingredients

Can your products perform through an entire day of selfies?

We live in an around-the-clock world. And each hour of everyday life, each second of extraordinary experiences, your customers want to look and feel their best. With the right ingredients, your long-wear cosmetics can be the advantage we all need.

When every day is a new possibility, everyone needs the confidence to get through it in its entirety. Your customers want products that help them feel buoyant and beautiful from day to night, from work to play, from the office to the gym . . . from right now to whatever lies ahead.

At Eastman, you'll find unique polymers and adhesion-promoting ingredients to perfect your long-wear products. Our advancements in film formation provide improved smudge and transfer resistance in color cosmetics, water resistance in sunscreens, and tunable firmness in hairstyling products. What's more, you can leverage our experts' demonstrated know-how across technologies and industries to develop fresh ideas. Together, we can develop new ways to enhance long-wear skin care, color, and hairstyling products.

We remain committed to seeking new ways to help formulators improve product performance and shorten the product development cycle. In that sense, our innovative ingredients and proven expertise can give cosmetics brands what cosmetics give us: confidence.

Make cosmetics, not compromises.

When your customers wear long-wear cosmetics made with Eastman ingredients, they can be confident and comfortable, luxurious and practical, and—most of all—uncompromising. With our specialty ingredients, your products are better formulated to perform all day on any schedule, whether it's for work or a workout. And with Eastman's global manufacturing and supply chain paired with a collaborative spirit, you can be confident in your go-to-market schedule as well.

True innovation is more than developing trendsetting applications; it's transcending. It's time to go beyond to perform when others quit. Learn how the right ingredients can help you develop the unique hair care, skin care, and color cosmetics formulations that perpetuate your brand and give your customers the confidence they need—on any schedule.

Hair care, skin care, and color cosmetics formulations containing Eastman long-wear ingredients

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HAIR CARE

FEATURED PRODUCTS

EASTMAN AQ™ POLYMERS

Eastman AQ™ polymers are highly versatile, water-dispersible polymers used in hairstyling, sun care, and color cosmetics for their film-forming properties. They are formulated in a variety of hairstyling products, including hair gels and sprays.

Eastman AQ 48 ultra polymer was designed specifically for use as a hair fixative in 55% VOC hair spray. Therefore, it is more compatible with higher levels of alcohol than Eastman AQ 38S or 55S and has good washout with shampooing. AQ 48 polymer provides excellent hold at high humidity in aerosol and pump hair sprays, as well as in clear styling gels.

EASTMAN SUSTANE™ SAIB

Eastman Sustane™ SAIB (sucrose acetate isobutyrate) is a sucrose-based adhesion promoter used to improve adhesion of products to fingernails, skin, and hair. In hair care products, SAIB deposits on the hair to provide body and manageability.

Creamy, strong-hold pomade with Eastman AQ™ 48 ultra polymer and Eastman Sustane™ SAIB

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	46.45	Water (aqua)	—
	Glycerin	5.00	Glycerin	—
	D-Panthenol	0.10	Panthenol	DSM
	Eastman AQ™ 48 ultra polymer	8.00	Polyester-5	Eastman
	Dermofeel™ PA-12	0.05	Sodium phytate	Evonik-Dr. Straetmans
	Aloe Vera Extract 10X	0.20	Aloe barbadensis (aloe) leaf juice	Terry Laboratories
B	Eastman Sustane™ SAIB MCT	10.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Lipocol™ SC-20	5.00	Ceteareth-20	Vantage
	Lipocol™ SC-1618	6.00	Cetearyl alcohol	Vantage
	SIMULSOL™ 165	6.00	Glyceryl stearate (and) PEG-100 stearate	SEPPIC
	Beeswax	3.00	Beeswax (cera alba)	Strahl & Pitsch
	Candelilla wax	1.00	Euphorbia cerifera (candelilla) wax	—
	Lipocol™ HCO-40	1.00	PEG-40 hydrogenated castor oil	Vantage
	TEGOSOFT™ DCE	2.00	Diethylhexyl carbonate	Evonik Industries
	Lipex Shea™	1.00	Butyrospermum parkii (shea) butter	AAK
	Lipovol™ ALM	1.00	Prunus amygdalus dulcis (sweet almond) oil	Vantage
SOFTISAN™ 378	1.00	Caprylic/capric/myristic/stearic triglyceride	IOI Oleo	
C	KEM CP	1.00	Phenoxyethanol (and) chlorphenesin (and) ethylhexylglycerin	Akema
	Butylene glycol	2.00	Butylene glycol	Dow
	Sodium hydroxide 50%	0.20	Sodium hydroxide	—

PROCEDURE

1. Weigh out part A into a clean, sanitized stainless steel vessel, and heat it to 80°–85°C.
2. Make sure that part A is clear and all ingredients are completely dispersed before moving on. Mix with scrapers.
3. Weigh out part B into a clean, sanitized stainless steel vessel, and heat it to 70°–75°C.
4. Slowly add part B to part A while mixing. Make sure that the temperature doesn't go below 75°C.
5. Once homogeneous, add part C.
6. Pour temperature is between 50°–55°C.
7. Adjust pH* if required.

Medium-to-strong-hold pomade with Eastman AQ™ 48 ultra polymer

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	65.15	Water (aqua)	—
	Glycerin	8.50	Glycerin	VVF
	Pro-vitamin B5 powder	0.10	Panthenol	DSM
	Eastman AQ™ 48 ultra polymer	5.00	Polyester-5	Eastman
	Dermofeel® PA-12	0.05	Sodium phytate	Evonik-Dr. Straetmans
B	Eumulgin® B 25	20.00	Ceteareth-25	BASF
C	Aloe Vera Extract 10X	0.50	Aloe barbadensis (aloe) leaf juice	Terry Laboratories
	KEM DIOL	0.70	Phenoxyethanol (and) caprylyl glycol	Akema

PROCEDURE

1. Weigh out the water of part A into a clean, sanitized stainless steel vessel, and heat it to 80°–85°C.
2. Once at temperature, incorporate the rest of part A in the order shown in the ingredient list. Make sure that part A is clear and all ingredients are completely dispersed before moving on. Mix with scrapers.
3. Once part A is at 80°–85°C, add part B (Eumulgin® B 25) to the batch slowly while mixing. Make sure that the temperature doesn't drop below 75°C.
4. Once all the Eumulgin B 25 is completely dissolved into the main vessel, add part C. The extracts and fragrance can be added in any order.
5. Pour temperature is 50°–55°C.
6. Adjust pH* if required.

*pH @ 25°C: 6.0–6.5

Spray gel with Eastman AQ™ 48 ultra polymer

This shear-thinning spray gel demonstrates the use of Eastman AQ 48 polymer as a film former and hair fixative with Laponite-XLG silicate to make a translucent gel. The gel holds air bubbles on standing but is extremely shear thinning, providing excellent spray-out from a standard pump-spray container.

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	60.2	Water (aqua)	—
	Laponite-XLG ¹	2.8	Sodium magnesium silicate	BYK/Eckart
B	Deionized water	29.4	Water (aqua)	—
	Glycerin	3.0	Glycerin	VVF
	Eastman AQ™ 48 ultra polymer	4.0	Polyester-5	Eastman
	EDETA® BD	0.1	Disodium EDTA	BASF
C	Preservative	q.s.	—	—
D	Citric acid, 20% in water	q.s.	Citric acid	—

¹Rockwood Additives, Southern Clay Products, Inc

PROCEDURE

Part A

1. Stir water rapidly while sprinkling in Laponite-XLG.
2. Mix until clear (20–30 minutes).

Part B

3. Combine water and glycerin.
4. Heat while stirring until temperature reaches about 45°C.
5. Add Eastman AQ 48 pellets and stir without heating until dispersed.
6. Add disodium EDTA and stir until dissolved.
7. Cool to room temperature.
8. Slowly add part B to part A, and mix until homogeneous.

Part C

9. Add part C to the mixture of parts A and B, and stir until thoroughly mixed.

Part D

10. While stirring the combined A/B/C mixture, slowly add part D (citric acid) to adjust pH to 4.2. (Note: pH will drift up to about 7.0 over 1 to 2 days.)

Directions for hairstyling demonstration

Spray onto short, damp hair and arrange as desired.

Styling cream with Eastman AQ™ 55S polymer

This styling cream with Eastman AQ 55S polymer provides flexible hold that is easy to comb out with no flaking. All ingredients are added to one pot.

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	93.45	Water (qua)	—
	Triethyl citrate	0.05	Triethyl citrate	Spectrum Chemical
	Carbopol® 980	1.0	Carbomer	Lubrizol
	Eastman AQ™ 55S polymer	3.0	Polyester-5	Eastman
	EDETA® BD	0.05	Disodium EDTA	BASF
	Preservative	q.s.	—	—
	Triethanolamine	q.s.	Triethanolamine	Spectrum Chemical

PROCEDURE

1. Combine water and disodium EDTA; heat to 75°C while stirring.
2. At 75°C, add Eastman AQ 55S polymer pellets and turn off heat.
Continue stirring until pellets are completely dispersed.
3. Cool to about 40°C. Add triethyl citrate while stirring.
4. When mixture reaches room temperature, sprinkle in carbomer with rapid stirring.
5. Add preservative after carbomer has completely dissolved.
6. Continue stirring until homogeneous.
7. Adjust pH to 6.5–7.0 with triethanolamine.

A close-up photograph of a woman's face and shoulder. She has dark skin and curly hair. Her hand is resting on her shoulder, with two dollops of white skin care cream on her skin. The background is a plain, light color.

SKIN CARE

FEATURED PRODUCTS

SAIB

Eastman Sustane™ SAIB (sucrose acetate isobutyrate) and Eastman SAIB are sucrose-based adhesion promoters used to improve adhesion of products to fingernails, skin, and hair. SAIB is available in a variety of low-viscosity blends for cosmetics and personal care applications.

EASTMAN GEM™ RETINYL SUNFLOWERATE

Eastman GEM™ retinyl sunflowerate is a pro-retinol derivative composed of retinol and sunflower fatty acids. It is a biobased, formulation-stable, easy-to-handle, nonirritating antiaging ingredient.

AQ POLYMERS

Eastman AQ™ polymers are highly versatile water-dispersible polymers used in hairstyling, sun care, and color cosmetics for their film forming properties.

Eastman AQ 38S polymer provides excellent film formation and water resistance in sunscreen products. As indicated by the number in the product name, AQ 38S polymer has a T_g of about 38°C. Because of its low T_g , Eastman AQ 38S forms flexible films on the skin. It imparts a smooth feel to creams, lotions, and sprays and adheres to the skin.

French green clay face mask with Eastman AQ™ 38S polymer

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	57.88	Water (aqua)	—
	SAFIC CARE T XGC 80	0.50	Xanthan gum	Safic-Alcan
	Glycerin	8.00	Glycerin	Dow
	Dermofeel® PA-12	0.10	Sodium phytate	Evonik-Dr. Straetmans
B	TEGOSOFT® DEC	5.00	Diethylhexyl carbonate	Evonik Industries
	Lipovol™ ALM	4.00	Prunus amygdalus dulcis (sweet almond) oil	Vantage
C	Eastman AQ™ 38S polymer (30% solution)	10.00	Polyester-5	Eastman
D	Jarxotic™ GC-NS: Green Clay	3.00	Illite (and) montmorillonite (and) kaolin	Jarchem Innovative Ingredients
	VEEGUM® HV	4.00	Magnesium aluminum silicate	Vanderbilt Minerals, LLC
	ImerCare® 2K	6.00	Kaolin	Imerys
	VANATURAL®	0.50	Bentonite	Vanderbilt Minerals, LLC
E	KEM CP	1.00	Phenoxyethanol (and) chlorphenesin (and) ethylhexylglycerin	Akema
	Citric acid	0.01	Citric acid	—
	Sodium hydroxide 50%	0.01	Sodium hydroxide	—

PROCEDURE

1. Weigh out part A into a clean, sanitized, stainless steel mixing vessel with mixer/homogenizer attachment. Heat it to between 75°–80°C and slowly incorporate the xanthan gum.
2. Weigh out part B, heated to 70°–75°C, and add to part A while mixing until homogeneous.
3. Once part A/B mixture is homogeneous, incorporate part C. Mix until homogeneous.
4. Without heating, incorporate part D. Mix until all powder is completely dispersed.
5. Start cooling; then incorporate part E at < 50°C.
6. Adjust pH, if required, with sodium hydroxide 50% or citric acid.

Moisturizing face cream with Eastman AQ™ 38S polymer and Eastman Sustane™ SAIB MCT

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	73.20	Water (aqua)	—
	Zemea®	2.00	Propanediol	DuPont Tate & Lyle
	Glycerin	2.00	Glycerin	VVF
	AMPHISOL® K	2.00	Potassium cetyl phosphate	DSM
	SAFIC'CARE T XGC 80	0.30	Xanthan gum	Safic-Alcan
	Dermofeel® PA-12	0.10	Sodium phytate	Evonik-Dr. Straetmans
B	Eastman AQ™ 38S polymer (30% solution)	5.00	Polyester-5	Eastman
C	Neossance® Squalane	1.50	Squalene	Aprinova
	SOFTISAN® 378	1.00	Caprylic/capric/myristic/stearic triglyceride	IOI Oleo
	Lipocol™ SC-20	1.50	Ceteareth-20	Vantage
	Lipocol™ SC-1618	3.00	Cetearyl alcohol	Vantage
	Covi-Ox® T 50	0.10	Tocopherol	BASF
	TEGOSOFT® DCE	2.50	Diethylhexyl carbonate	Evonik Industries
	Cetiol® SN	2.50	Cetearyl isononanoate	BASF
	Cutina® GMS-SE	1.50	Glyceryl stearate SE	BASF
	Eastman Sustane™ SAIB MCT	1.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
D	KEM DIOL	0.80	Phenoxyethanol (and) caprylyl glycol	Akema

PROCEDURE

1. Weigh out part A into a clean, sanitized stainless steel vessel, and heat it to 80°–85°C.
2. Once at temperature, incorporate the xanthan gum. Make sure part A is completely dispersed before moving on to step 3.
3. Weigh out part C into a clean, sanitized stainless steel vessel, and heat it to 70°–75°C.
4. Once all the xanthan gum is completely dissolved into the main vessel, add part C and increase the speed.
5. Once homogeneous, keep the temperature and incorporate part B. Mix until homogeneous.
6. Once homogeneous, start cooling down. Once < 50°C, incorporate part D.
7. Adjust pH* if required.

*pH @ 25°C: 5.5–6.0

Zinc oxide sunscreen lotion with Eastman AQ™ 38S polymer and Eastman Sustane™ SAIB MCT

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	73.20	Water (aqua)	—
	Zemea®	2.00	Propanediol	DuPont Tate & Lyle
	Glycerin	2.00	Glycerin	Dow
	AMPHISOL® K	2.00	Potassium cetyl phosphate	DSM
	SAFIC® CARE T XGC 80	0.20	Xanthan gum	Safic-Alcan
	CELLOSIZE™ hydroxyethyl cellulose (HEC)	0.40	Hydroxyethylcellulose	Dow
	Dermofeel® PA-1	0.10	Sodium phytate	Evonik-Dr. Straetmans
B	Eastman AQ™ 38S polymer (30% solution)	10.00	Polyester-5	Eastman
C	Crodamol™ AB	4.00	C12-15 alkyl benzoate	Croda
	SOFTISAN® 378	1.00	Caprylic/capric/myristic/stearic triglyceride	IOI Oleo
	Lipocol™ SC-20	1.50	Ceteareth-20	Vantage
	Lipocol™ SC-1618	3.00	Cetearyl alcohol	Vantage
	Covi-Ox® T 50	0.50	Tocopherol	BASF
	TEGOSOFT® DCE	1.50	Diethylhexyl carbonate	Evonik Industries
	Cetiol® SN	2.00	Cetearyl isononanoate	BASF
	Cutina® GMS-SE	1.50	Glyceryl stearate SE	BASF
	Eastman Sustane™ SAIB MCT	1.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Tinogard® TT	0.10	Pentaerythrityl tetra-di-t-butyl hydroxyhydrocinnamate	BASF
D	PARSOL® 340	6.00	Octocrylene	DSM
	PARSOL® MCX	5.00	Phenoxyethanol (and) caprylyl glycol	DSM
	AEROSIL® 300	1.00	Silica	Evonik Industries
	Zinc oxide (micronized)	12.00	Zinc oxide	—
E	KEM DIOL	0.80	Phenoxyethanol (and) caprylyl glycol	Akema

PROCEDURE

1. Weigh out part A into a clean, sanitized stainless steel vessel, and heat it to 80°–85°C.
2. Once at temperature, incorporate xanthan gum and hydroxyethylcellulose. Make sure that part A is completely dispersed before moving on to the next step.
3. Weigh out part C into a clean, sanitized stainless steel vessel, and heat it to 70°–75°C.
4. Once all part A is completely dissolved into the main vessel, add part C and increase the speed.
5. Once homogeneous, keep the temperature and incorporate part B. Mix until homogeneous.
6. Once homogeneous, incorporate part D and increase speed to 1200–1500 rpm.
7. Once homogeneous, start cooling down. Once < 50°C, incorporate part E.
8. Adjust pH* if required.

Green clay and aloe peel-off mask with Eastman AQ™ 55 polymer

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	56.33	Water (aqua)	—
	Selvol™ FA	9.00	Polyvinyl alcohol	Sekisui
	Glycerin	2.00	Glycerin	Dow
	CELLOSIZETM hydroxyethyl cellulose HEC	0.25	Hydroxyethylcellulose	Dow
	Dermofeel® PA-12	0.10	Sodium phytate	Evonik-Dr. Straetmans
B	Alcohol	6.00	Diethylhexyl carbonate	Evonik Industries
	Propylene glycol	8.00	Propylene glycol	—
	Titanium dioxide	2.00	Titanium dioxide	—
	SAFIC'CARE T XGC 80	0.40	Xanthan gum	Safic-Alcan
	Jarxotic™ GC-NS: Green Clay	3.00	Illite (and) montmorillonite (and) kaolin	Jarchem Innovative Ingredients
	Aloe Vera Extract 10X	0.10	Aloe barbadensis (aloe) leaf extract	Terry Laboratories
C	Eastman AQ™ 55S polymer (30% solution)	12.00	Polyester-5	Eastman
	KEM CP	0.80	Phenoxyethanol (and) chlorphenesin (and) ethylhexylglycerin	Akema
	Citric acid	0.01	Citric acid	—
	Sodium hydroxide 50%	0.10	Sodium hydroxide	—

PROCEDURE

1. Weigh out part A into a clean, sanitized, stainless steel mixing vessel with mixer/homogenizer attachment. Stir part A at 70°–75°C.
2. When hydroxyethylcellulose and polyvinyl alcohol are dissolved completely, cool down to room temperature.
3. Once part A is homogeneous, add part B ingredients. Mix until homogeneous.
4. Mix until all powder is completely dispersed; then add part C.
5. Adjust pH, if required, with sodium hydroxide 50% or citric acid.

Long-wear antiaging serum with Eastman GEM™ retinyl sunflowerate

This light, oil-free formula is unstopplable. It has the power of Eastman GEM™ retinyl sunflowerate as the active ingredient, which has been shown to reduce the appearance of fine lines and wrinkles after only 6 weeks of use. In addition, the serum has two film formers to hold it in place and keep it working on your skin. The retinoid is stabilized in the formula by the addition of the antioxidant BHT.

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer	Function
A	Eastman AQ™ 55 polymer	5.0	Polyester-5	Eastman	Film former
	Laponite-XLG	0.9	Lithium magnesium sodium silicate	BYK/Eckart	Film former, thickener
	Hallstar® PEG 6000 DS	0.5	PEG-150 distearate	Hallstar	Emulsifier, thickener
	KELTROL® CG	0.1	Xanthan gum	CP Kelco	Thickener
	Deionized water	q.s.	Water (aqua)	—	—
B	Betafin® BP 20	1	Betaine	DuPont	Humectant
	Z-Ethylhexyl palmitate	2	Ethylhexyl palmitate	—	Emollient
	As determined by formulator	Varies	—	—	Preservative
C	Isopropyl alcohol, cosmetic	0.9	Isopropyl alcohol	Shell	Solvent
	Eastman GEM retinyl sunflowerate	0.1	Retinyl sunflowerseedate	Eastman	Antiaging active
	Eastman Tenox™ BHT	0.02	Butylated hydroxytoluene	Eastman	Antioxidant

PROCEDURE

1. Combine all part A ingredients in heated purified water (60°–70°C) and stir to completely disperse.
2. Add part B to the cooled water phase while mixing. Homogenize to form an emulsion.
3. Add part C (actives) and blend to combine.

TIP: Prepare part C as an actives premix and store protected from light and air. A suitable premix may contain 10% R-SUN, 2% BHT in pure isopropyl alcohol to be diluted 100-fold into the final formula. Isopropyl alcohol acts as a diluent for the active and reduces dry time of the film, while BHT protects the retinoid from oxidation in the formula.

Water-resistant sunscreen lotion with Eastman AQ™ 38S polymer

Part	Product Name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	60.82	Water (aqua)	—
	AMPHISOL® K	2.0	Potassium cetyl phosphate	DSM
	Glycerin	3.0	Glycerin	VVF
	EDETA® BD	0.05	Disodium EDTA	BASF
	Carbopol® Ultrez 20	0.2	Acrylates/C10-30 alkyl acrylate crosspolymer	Lubrizol
	Sodium hydroxide, 30%	0.04	Sodium hydroxide	—
	Eastman AQ 38S	2.0	Polyester-5	Eastman
B	Crodamol™ AB	5.0	C12-15 alkyl benzoate	Croda
	HallBrite™ BHB	2.0	Butyloctyl salicylate	Hallstar
	PARSOL® MCX	7.5	Ethylhexyl methoxycinnamate	DSM
	PARSOL® 340	2.39	Octocrylene	DSM
	Eusolex® OS	5.0	Ethylhexyl salicylate	EMD
	PARSOL® 1789	3.0	Butyl methoxydibenzoylmethane	DSM
	Crodamol™ MM	3.0	Myristyl myristate	Croda
	Cutina™ GMS	3.0	Glyceryl stearate	BASF
Lanette™ O	1.0	Cetearyl alcohol	BASF	
C	Preservative	q.s.	—	—

PROCEDURE

Part A

1. Combine all part A ingredients except Eastman AQ 38S polymer, and heat to 75°C while stirring.
2. Add Eastman AQ 38S pellets at 75°C; continue stirring until pellets are completely dispersed.

Part B

3. Combine part B ingredients and heat to about 85°C, stirring continually until mixture is completely dissolved.
4. With part A at 75°C and part B at 85°C, gradually add part B to part A with rapid stirring. Continue stirring until the combined parts A and B pre-emulsion is homogeneous.
5. Homogenize* the combined parts A and B pre-emulsion at high speed for 10 minutes with no additional heating; cover container to prevent water loss.
6. While stirring, cool the combined parts A and B emulsion to 40°C or less.

Part C

7. Add preservative at 40°C or less while stirring. If necessary, adjust pH to 6.0–7.0 with dilute sodium hydroxide solution.

**Suitable laboratory homogenizers include rotor-stator, slotted-head mixers—with a head diameter of 4.5 cm or more—available from Silverson Machines, Inc. or Janke & Kunkel. The mean particle diameter of this homogenized emulsion is about 0.7–1.2 micron, which is in a desired range for formula stability. Since homogenizer type, homogenizer head design, and rotor speed may produce different mean particle sizes, it is up to the formulator to obtain their required particle size.*

SPF 50^a sunscreen spray with Eastman AQ™ 38S polymer

Part	Product Name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	51.32	Water (aqua)	—
	AMPHISOL® K	2.5	Potassium cetyl phosphate	DSM
	Glycerin	3.0	Glycerin	VVF
	EDETA® BD	0.05	Disodium EDTA	BASF
	Eastman AQ™ 38S polymer	3.0	Polyester-5	Eastman
B	Crodamol™ AB	5.0	C12-15 alkyl benzoate	Croda
	PARSOL® MCX	7.5	Ethylhexyl methoxycinnamate	DSM
	PARSOL® 340	4.0	Octocrylene	DSM
	Uvinul® M 40	6.0	Benzophenone-3	BASF
	Z-Cote® HP	1.43	Zinc oxide (and) triethoxycaprylylsilane	BASF
	Neo Heliopan® HMS	8.0	Homosalate	Symrise
	Eusolex® OS	5.0	Ethylhexyl salicylate	EMD
	Cutina® GMS	2.0	Glyceryl stearate	BASF
Lanette® O	1.20	Cetearyl alcohol	BASF	
C	Preservative	q.s.	—	—

^aSPF determined by *in vivo* testing.

PROCEDURE

Part A

1. Combine all part A ingredients except Eastman AQ 38S polymer, and heat to 75°C while stirring.
2. Add Eastman AQ 38S pellets at 75°C; continue stirring until pellets are completely dispersed.

Part B

3. Combine part B ingredients and heat to about 85°C, stirring continually until mixture is completely dissolved.
4. With part A at 75°C and part B at 85°C, gradually add part B to part A with rapid stirring. Continue stirring until the combined parts A and B pre-emulsion is homogeneous.
5. Homogenize* the combined parts A and B pre-emulsion at high speed for 10 minutes with no additional heating; cover container to prevent water loss.
6. While stirring, cool the combined parts A and B emulsion to 40°C or less.

Part C

7. Add preservative at 40°C or less while stirring. If necessary, adjust pH to 6.0–7.0 with dilute sodium hydroxide solution.

**Suitable laboratory homogenizers include rotor-stator, slotted-head mixers—with a head diameter of 4.5 cm or more—available from Silverson Machines, Inc. or Janke & Kunkel. The mean particle diameter of this homogenized emulsion is about 0.7–1.2 micron, which is in a desired range for formula stability. Since homogenizer type, homogenizer head design, and rotor speed may produce different mean particle sizes, it is up to the formulator to obtain their required particle size.*

COLOR COSMETICS



FEATURED PRODUCTS

SAIB

Eastman Sustane™ SAIB, and Eastman SAIB (sucrose acetate isobutyrate) are sucrose-based adhesion promoters used to improve adhesion of products to fingernails, skin, and hair. SAIB is available in a variety of low-viscosity blends for cosmetics and personal care applications.

In transfer-resistant lipstick, SAIB can function as a plasticizer to soften the primary film former and improve its adhesion and flexibility. In traditional lipstick, it can improve wear properties by reducing creeping, bleeding, and feathering.

CELLULOSE ESTERS

Cellulose esters are polymers used by the nail care industry as film formers. Films formed from cellulose esters have fast solvent release. Compared to nitrocellulose, cellulose esters are nonyellowing and have excellent clarity and stability. They are nontoxic and easily pigmented. Cellulose acetate butyrate (CAB) and cellulose acetate propionate (CAP) resins are available in a range of viscosities and solubilities to meet formulators' needs.

AQ POLYMERS FOR COLOR

Eastman AQ™ polymers are highly versatile water-dispersible polymers used in hairstyling, sun care, and color cosmetics for their film forming properties. In color cosmetics, they are used in mascara, eyeliners, and makeup. Eastman AQ 55S has good film integrity when combined with other cosmetics ingredients and is the preferred AQ polymer to improve water and smudge resistance of water-based makeup and mascaras. In hairstyling products, AQ 55S provides excellent hold under high-humidity conditions and stiffness that is easily modified with plasticizers and thickeners.

Water-resistant mascara with Eastman AQ™ 55S polymer and Eastman Sustane™ SAIB MCT

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	46.40	Water (aqua)	—
	CELLOSIZETM hydroxyethyl cellulose (HEC)	0.5	Hydroxyethylcellulose	Dow
	Sodium hydroxide 50%	0.3	Sodium hydroxide	—
	Pro-vitamin B5 powder	0.1	Panthenol	DSM
	Zemea®	3.0	Propanediol	DuPont Tate & Lyle
	Dermofeel® PA-12	0.05	Sodium phytate	Evonik-Dr. Straetmans
B	Eastman AQ™ 55S polymer (30% solution)	15	Polyester-5	Eastman
C	Beeswax	5.0	Beeswax (cera alba)	Strahl & Pitsch
	Cutina® GMS-SE	2.5	Glycerol stearate	BASF
	Carnauba wax	2.0	Carnauba wax	Strahl & Pitsch
	Stearic Acid USP (Triple Pressed)	5.0	Stearic acid	Vantage
	Eastman Sustane™ SAIB MCT	1.5	Sucrose acetate isobutyrate (and) caprylic/capric triglycerides	Eastman
	Covi-Ox® T 50	0.1	Tocopherol	BASF
	TEGOSOFT® DCE	2.0	Diethylhexyl carbonate	Evonik Industries
	Dermofeel® TEC eco	1.0	Triethyl citrate	Evonik-Dr. Straetmans
	XIAMETER™ PMX-200 Fluid 200	1.0	Dimethicone	Dow
	Neossance™ Hemisqualane	1.0	C13-15 alkane	Aprinnova
D	INWP70EB	12.0	Iron oxides (and) isononyl isononanoate (and) ozokerite (and) isopropyl titanium triisostearate (and) polyhydroxystearic acid	Kobo Products
	Mineral base	0.25	Mica (and) zinc oxide (and) titanium dioxide (and) silica	—
E	KEM CP	0.8	Phenoxyethanol (and) chlorphenesin (and) ethylhexylglycerin	Akema
	VEEGUM®	0.5	Magnesium aluminum silicate	Vanderbilt Minerals, LLC

PROCEDURE

1. Weigh out part A into a clean, sanitized, stainless steel mixing vessel with mixer/homogenizer attachment. Heat it to 70°–75°C. Incorporate hydroxyethylcellulose at medium speed of 500–700 rpm. Mix until homogenized.
2. Weigh out part C, heat to 70°–75°C, and add to part A. Mix at a speed of 800–1000 rpm until the part A/C mixture is homogeneous.
3. Once the part A/C mixture is homogeneous, incorporate part B and mix until homogeneous.
4. Stop heating and incorporate part D into the part A/B/C mixture. Increase mixing to 1800–2000 rpm, and mix until complete homogeneous dispersion of the pigment.
5. Start cooling, and then incorporate part E at < 50°C.
6. Adjust pH* if required.

Long-wear and water-resistant foundation with Eastman AQ™ 38S polymer and Eastman Sustane™ SAIB MCT

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	58.2	Water (aqua)	—
	SOLAGUM™ AX	2.0	Acacia senegal gum (and) xanthan gum	SEPPIC
	Sodium hydroxide 50%	0.3	Sodium hydroxide	—
	Dermofeel® PA-12	0.1	Sodium phytate	Evonik-Dr. Straetmans
	Zemea®	2.0	Propanediol	DuPont Tate & Lyle
B	Eastman AQ™ polymer 38S (30% solution)	13.5	Polyester-5	Eastman
C	SIMULSOL™ 165	3.0	Glyceryl stearate (and) PEG-100 stearate	SEPPIC
	TEGOSOFT® APM	2.0	PPG-3 myristyl ether	Evonik Industries
	Eumulgin® B 25	1.5	Ceteareth-25	BASF
	Stearic Acid USP (Triple Pressed)	2.5	Stearic acid	Vantage
	Eastman Sustane™ SAIB MCT	1.0	Sucrose acetate isobutyrate (and) caprylic/capric triglycerides	Eastman
	Covi-Ox® T 50	0.1	Tocopherol	BASF
	Neossance™ Hemisqualane	1.0	C13-15 alkane	Aprinova
	Dermofeel® TEC eco	1.0	Triethyl citrate	Evonik-Dr. Straetmans
XIAMETER® PMX-200 Fluid 200	2.0	Dimethicone	Dow	
D	Pigment Blend Earth Brown	5.0	Titanium dioxide (and) CI77492	Making Cosmetics
	Mineral base	2.0	Mica (and) zinc oxide (and) titanium dioxide (and) silica	—
	Titanium dioxide liquid	2.0	Titanium dioxide (and) octyldodecanol	—
E	KEM EHG	1.0	Phenoxyethanol (and) ethylhexylglycerin	Akema

PROCEDURE

1. Weigh out the liquid components of part A into a clean, sanitized, stainless steel mixing vessel with mixer/homogenizer attachment, and heat to between 75°–80°C.
2. Once at temperature, incorporate the powder slowly to avoid gelling at a mixing speed of 600–800 rpm.
3. Weigh out part C into a clean, sanitized, stainless steel mixing vessel, and heat it to between 70°–75°C. Once homogeneous, incorporate with part A. Mix until homogeneous, and increase mixing speed to 1000–1200 rpm.
4. Incorporate part D, and once homogeneous, add part A/C mixture. Increase mixing speed to 1400–1600 rpm, and mix until homogeneous.
5. Incorporate part B, and once homogeneous, add part A/C/D mixture. Increase mixing speed to 1800–2000 rpm.
6. Start cooling, and then incorporate part E at < 50°C.
7. Adjust pH* if required.

BB cream with Eastman AQ™ 38S polymer and Eastman Sustane™ SAIB

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Deionized water	49.80	Water (aqua)	—
	Glycerin	5.00	Glycerin	Dow
	SOLAGUM™ AX	0.15	Acacia senegal gum (and) xanthan gum	SEPPIC
	Sodium hydroxide 50%	0.20	Sodium hydroxide	—
	Dermofeel® PA-12	0.05	Sodium phytate	Evonik-Dr. Straetmans
	Aloe Vera Extract 10X	0.50	Aloe barbadensis (aloe) leaf juice	Terry Laboratories
B	Eastman Sustane™ SAIB MCT	2.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Stearic acid	2.00	Stearic acid	—
	Lipocol™ SC-1618	1.50	Cetearyl alcohol	Vantage
	SIMULSOL™ 165	5.00	Glyceryl stearate (and) PEG-100 stearate	SEPPIC
	Cetiol® SN	4.00	Cetearyl isonanoate	BASF
C	TEGOSOFT® DCE	3.00	Diethylhexyl carbonate	Evonik Industries
D	Cyclomethicone	8.00	Cyclomethicone	Dow
	KEM Diol	0.80	Phenoxyethanol (and) caprylyl glycol	Akema
	Pigment Blend Bare Neutral	3.00	Titanium dioxide, CI 77492 (iron oxides)	Making Cosmetics
	Titanium dioxide dispersion in octyldodecanol	2.00	Titanium dioxide and octyldodecanol	—
E	PARSOL® MCX	3.00	Ethylhexyl methoxycinnamate	DSM
E	Eastman AQ™ 38S polymer (30% solution)	10.00	Polyester-5	Eastman

PROCEDURE

1. Weigh out part A into a clean, sanitized stainless steel vessel, and heat it to 80°–85°C.
2. Make sure that part A is clear and all ingredients completely dispersed before moving on to step 3. Mix with scrapers.
3. Weigh out part B into a clean, sanitized stainless steel vessel. Heat it to 70°–75°C and add part B to part A slowly while mixing.
4. Once homogeneous, incorporate part E. Increase mixing speed.
5. Once homogeneous, start cooling down. Once below 60°C, incorporate part C.
6. Continue cooling down, and add part D at < 50°C.
7. Adjust pH if required.

Liquid lipstick with Eastman Sustane™ SAIB MCT

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Eutanol G	9.80	Octyldodecanol	BASF
	XIAMETER™ PMX-200 Silicone Fluid	4.00	Dimethicone	Dow
	Eastman Sustane™ SAIB MCT	15.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Crodamol™ AB	25.00	C12-15 alkyl benzoate	Croda
	Beeswax	4.00	Beeswax (cera alba)	Strahl & Pitsch
	Covi-Ox® T 50	0.20	Tocopherol	BASF
B	Titanium dioxide dispersion	5.00	Titanium dioxide (and) octyldodecanol	—
	SW50R40A	8.00	Synthetic wax (and) Red 40 Lake (and) isopropyl titanium triisostearate	Kobo Products
	XIAMETER™ PMX-200 Silicone Fluid	2.00	Dimethicone	Dow
	Crodamol™ AB	10.00	C12-15 alkyl benzoate	Croda
C	Timiron® Splendid Gold	2.00	Titanium dioxide (and) mica (and) silica	EMD
	PARSOL® MCX	0.50	Ethylhexyl methoxycinnamate	DSM
	AEROSIL® R 974	4.00	Silica dimethyl silylate	Evonik Industries
	KEM EHG	0.50	Phenoxyethanol (and) ethylhexylglycerin	Akema
D	Ethylhexyl palmitate	8.00	Ethylhexyl palmitate	—
	Regalite™ R1100 CG hydrocarbon resin	2.00	Hydrogenated styrene/methylstyrene/indene copolymer	Synthomer

PROCEDURE

- Mix part A ingredients and heat to 80°C while mixing until ingredients are completely dissolved.
- In a separate container, add part D and heat to 100°C. Mix until all ingredients have been completely dissolved; then add to part A.
- Add part B to the part A/D mixture. Mix until homogeneous.
- Add part C to the part A/B/D mixture, keeping the heat at 70°C. Mix until uniform.
- Stop heating and continue mixing until temperature reaches 45°C.

Lip gloss with Eastman Sustane™ SAIB

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Crodamol™ AB	28.5	C12-15 alkyl benzoate	Croda
	XIAMETER® PMX-200 Silicone Fluid	5.00	Dimethicone	Dow
	Eastman Sustane™ SAIB MCT	30.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Eastman Sustane™ SAIB-100	5.00	Sucrose acetate isobutyrate	Eastman
	Beeswax	8.00	Beeswax (Cera alba)	Strahl & Pitsch
	Covi-Ox® T 50	0.50	Tocopherol	BASF
B	Titanium dioxide dispersion	1.00	Titanium dioxide (and) octyldodecanol	—
	SW50R40A	8.00	Synthetic wax (and) Red 40 Lake (and) isopropyl titanium triisostearate	Kobo Products
	XIAMETER® PMX-200 Silicone Fluid	3.00	Dimethicone	Dow
	Timiron® Splendid Gold	2.00	Titanium dioxide (and) mica (and) silica	EMD
C	PARSOL® MCX	0.50	Ethylhexyl methoxycinnamate	DSM
	AEROSIL® R 974	2.00	Silica dimethyl silylate	Evonik Industries
	KEM EHG	0.50	Phenoxyethanol (and) ethylhexylglycerin	Akema
D	Ethylhexyl palmitate	5.00	Ethylhexyl palmitate	—
	Regalite™ R1100 CG hydrocarbon resin	1.00	Hydrogenated styrene/methylstyrene/indene copolymer	Synthomer

PROCEDURE

- Mix all part A ingredients except beeswax and heat to 90°C while mixing until ingredients are completely dissolved. Incorporate beeswax once all Regalite is dissolved.
- In a separate container, add part D and heat to 100°C. Mix until all ingredients are completely dissolved; then add to part A.
- Add part B to the part A/D mixture, and mix until homogeneous.
- Add part C to the part A/B/D mixture, keeping the heat at 70°C. Mix until uniform.
- Stop heating and continue mixing until temperature reduces to 45°C.

Water-resistant anhydrous mascara with Eastman Sustane™ SAIB

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Eutanol® G	8.00	Octyldodecanol	BASF
	RITAWAX	3.00	Lanolin alcohol	Rita Corporation
	Eastman Sustane™ SAIB MCT	15.00	Sucrose acetate isobutyrate (and) caprylic/capric triglyceride	Eastman
	Crodamol™ AB	19.50	C12-15 alkyl benzoate	Croda
	Beeswax	5.00	Beeswax (cera alba)	Strahl & Pitsch
	Microcrystalline wax	3.00	Microcrystalline wax	Strahl & Pitsch
	Covi-Ox® T 50	0.50	Tocopherol	BASF
B	XIAMETER® PMX-0245	4.00	Cyclopentasiloxane	Dow
	GCB70BSG	10.00	Iron oxides (and) caprylic/capric triglyceride (and) isopropyl myristate (and) stearyl glutamic acid (and) stearalkonium hectorite (and) trihydroxystearin (and) propylene carbonate	Kobo Products
	XIAMETER® PMX-200 Silicone Fluid	1.00	Dimethicone	Dow
	TEGOSOFT® DCE	10.00	Diethylhexyl carbonate	Evonik Industries
C	VANATURAL®	0.50	Bentonite	Vanderbilt Minerals, LLC
	AEROSIL® R 974	5.00	Silica dimethyl silylate	Evonik Industries
	KEM EHG	0.50	Phenoxyethanol (and) ethylhexylglycerin	Akema
D	Ethylhexyl palmitate	10.00	Ethylhexyl palmitate	—
	Regalite™ R1100 CG hydrocarbon resin	5.00	Hydrogenated styrene/methylstyrene/indene copolymer	Synthomer

PROCEDURE

- Mix part A ingredients and heat to 80°C while mixing until ingredients are completely dissolved.
- In a separate container add part D and heat to 100°C. Mix until all ingredients are completely dissolved; then add to part A.
- Add part B to the part A/D mixture. Mix until homogeneous.
- Add part C to the part A/B/D mixture, keeping the heat at 70°C. Mix until uniform.
- Stop heating and continue mixing until temperature reduces to 45°C.

Nail polish formulation—fast-drying, clear topcoat with Eastman CAB 381-0.5

Part	Product name	Wt%	Ingredient/INCI name	Manufacturer
A	Eastman <i>n</i> -butyl acetate	37.31	Butyl acetate	Eastman
	Isopropanol	14.10	Isopropanol	Dow
	Eastman isobutyl acetate	14.19	Isobutyl acetate	Eastman
	Eastman TXIB™ formulation additive	3.82	Trimethyl pentanyl diisobutyrate	Eastman
	Isopar™ C	6.08	C7-C8 isoparaffin	ExxonMobil
	BYK-300	0.40	Dimethicone	BYK
	Butoxyethanol	0.10	Butoxyethanol	Dow
B	Eastman CAB 381-0.5	24.00	Cellulose acetate butyrate	Eastman

PROCEDURE

1. Add all ingredients in part A together.
2. Add Eastman CAB-381-0.5 while stirring.

NOTES

NOTES

ABOUT EASTMAN

IT'S ALL ABOUT THE INGREDIENTS.

Eastman is a global specialty materials company that produces a broad range of products found in items people use every day. With the purpose of enhancing the quality of life in a material way, Eastman works with customers to deliver innovative products and solutions while maintaining a commitment to safety and sustainability.

We have a long history of providing specialty ingredients to the personal care and cosmetics industry, offering a wide variety of products—from adhesion promoters to film formers to retinyl esters.

Personal care and cosmetics formulators rely on our innovative solutions to create and successfully introduce new products with tangible consumer benefits.

To learn more about how Eastman ingredients can best enhance your personal care and cosmetics products, visit us at eastman.com/personalcare.



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