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Turn oil into gel textures

ETHOCEL™ Oil Thickeners and Film Formers facilitate creativity with oils and oil containing products in new formats, offering tailored, transparent thickening while exhibiting broad oil compatibility.

Capabilities

- Non anionic, non associative cellulosic based thickener
- Excellent solubility in blends from moderate to strong polarity; limited solubility in pure oils

Market Fit

- Sensory & indulgence
- Health & wellness
- "East meets west"
- Increasing facial oils presence since 2012 – Euromonitor (Top Four Trends in Skin Care 2015)

Benefits

- Transparent
- Broad range of texture possibilities (liquid oil / honey oil / jelly oil)
- Oil, without the greasy feel of oil

User Experience*

- Does not spill during application
- Stays on hands during application
- More refreshing feel
- Excellent visual, aesthetic appeal for consumer

Creative Oil: "Ultimair" - Ultimate Hair Oil

"Ultimair" - Ultimate Hair Oil

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Eutanol G	35,20	Octyldodecanol	BASF
Α	ETHOCEL™ Standard 100 Premium	4,00	Ethylcellulose	Dow
В	Ethanol Absolute	5,00	Alcohol Denat.	
В	Escalol 557	0,50	Ethylhexyl Methoxycinnamate	Ashland
В	Crodamol IPM	20,00	Isopropyl Myristate	Croda
В	UCON™ Fluid AP Emollient	15,00	PPG-14 Butyl Ether	Dow
В	DC 245	20,00	Cyclopentasiloxane	Dow Corning
В	Fragrance Sublim'Argan E_1023732	0,30	Parfum / Fragrance	Mane

Processing Instructions:

- Introduce ETHOCEL™ in Eutanol G and premix with an impeller at 1000-1500 rpm.
- Start heating to 85°C while continuing stirring.
- Maintain at 85°C under stirring for at least 20-30 minutes to allow ETHOCEL™ swelling.
- Check that the formulation has become clear and particle-free.
- Cool down to 45°C and add ingredients of Phase B.

Product Characteristics

Parameter	Range
Appearance	Clear
Viscosity (cPs)	LV#4, 12 rpm: 6000-7000 cps



Creative Oil: "Scrublicious" Cleansing Oil Scrub

Scrublicious #2

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Eutanol G	31,00	Octyldodecanol	BASF
Α	Crodamol GTCC	31,00	Caprylic capric trigly cerides	Croda
Α	DCFZ 3196	10,00	Caprylyl Methicone	Dow Corning
В	ETHOCEL™ STD 100 Premium Thickener	7,00	Ethylcellulose	Dow
С	Lumorol K1000	20,00	MIPA-Laureth Sulfate (and) Laureth-4 (and) Cocamide DEA	Zschimmer & Schwarz
С	Reveil d'agrumes E_1023725	0,20	Fragrance	Mane
С	Lipo APS 40/60	1,00	Prunis Armaniaca (Apricot) Seed Powder	Vantage

- Mix ingredient phase A.
- Introduce phase B and mix at 1000-1500 rpm for 15 min.
- Heat to 85°C while continuing stirring.
- Maintain at 85°C under stirring for 15 minutes until swelling of ETHOCEL™.
- Check that the formulation has become clear and particle free.
- 6. Cool down until 45°C and then introduce phase C under stirring.



Creative Oil: "Sunlicious" Light Gel like Sun Care Oil

"Sunlicious" - Light Gel like Sun Care Oil

Juliller	ous - Light Gerrike Sun Care On			
Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
A	Eutanol G	24,10	Octyldodecanol	BASF
Α	Tegosoft TN	24,02	C12-15 Alkylbenzoate	Evonik
Α	Crodamol GTCC	24,00	Caprylic/Capric Triglycerides	Croda
В	ETHOCEL™ Standard 100 Premium	3,00	Ethylcellulose	Dow
С	Tinosorb S	3,00	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	BASF
С	Neo Heliopan 357	4,50	Ethylhexyl Methoxycinnamate Methoxydibenzoylmethane (Avobenzone)	Symrise
С	Escalol 557	8,00	Homomenthyl Salicylate (Homosalate)	Ashland
С	Neo Heliopan HMS	6,00	Octocrylene	Symrise
D	2% Jaune Soleil Solution	0,16	CI 15985	Colorey
D	Fragrance Sublim'Argan E_1023732	0,30	Parfum/Fragrance	Mane

Product Characteristics

Parameter	Range	Method
Appearance	Clear orange	Visual
Viscosity (cPs)	2,0-4,0	Brookfield Viscometer, LV#4, 30 rpm

- Mix ingredients of Phase A until uniform.
- Introduce ingredient of Phase B and premix with an impeller at 1000-1500 rpm.
- Start heating to 85°C while continuing stirring.
- Maintain at 85°C under stirring for at least 20-30 minutes to allow ETHOCEL™ swelling.
- Check that the formulation has become clear and particle-free.
- Cool down to 70-75°C and then introduce ingredients of phase C under stirring.
- Cool down to 45°C to introduce ingredients of phase D.





Caring oils from refreshing gels

ETHOCEL™ Oil Thickeners and Film Formers form non-stabilized foam bubbles that burst when touched – creating a fun, 'crackling' effect, and helping design of oil-based beauty products which can be combined with refreshing, easy to apply gels.

Capabilities

- ETHOCEL™ Oil thickener and film former trap propellant, enabling the formation of bubbles
- Low compatibility between oil and propellant required
- Bubbles burst under pressure from fingers

Benefits

- The caring benefits of oils delivered in a refreshing gel format
- No risk of spilling greasy oils on clothes
 - Transformation from foam to gel as oilcarrying bubbles burst

Market Fit

- Sensory & indulgence
- "East meets West", supporting growing demand for oil formats
- Increasing facial oils presence since 2012 – Euromonitor (Top Four Trends in Skin Care 2015)

User Experience*

- Fun to use, and crackling effect recalls festive events and childhood
- Easy-to-use creamy gel texture finished with a smooth, refreshed and moisturized skin feels indulgent

Cracking Oil: Formulation

Cracking Oil #1

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Polyglycol P 400E	47,50	PPG-9	Dow
Α	ETHOCEL™ STD 100 Premium Oil Thickener	2,00	Ethylcellulose	Dow
Α	Empicol BSFA (30%)	0,50	Cocamidopropyl betaine	Huntsman
В	n-Butane / Propane 4,8 bars	50,00	n-Butane / Propane	Inventec

- At 80°C, mix ingredients of Phase A (introduced step by step under vigorous stirring, in the following order, until full homogenization).
- 2. Cool down to 40°C and add Phase B.
- 3. Add propellant in a system 50/50.
- 4. Use Actuator Magic Mousse from precision.





Turn liquid into cracking gel/ mousse

METHOCEL™ and CELLOSIZE™ Rheology Modifiers form non-stabilized mousse bubbles that create a crackling effect and contribute to a creamy refreshing gel texture easy to apply on skin – a surprising effect that plunges you back into childhood and leaves an invigorating soft sensation on skin.

Capabilities

- METHOCEL[™] and CELLOSIZE[™] Rheology Modifiers enable formation of bubbles
- Bubbles burst under pressure from fingers
 Tunable from gel to extremely
- Tunable from gel to extremely light/ high volume mousses

Market Fit

- Sensory & indulgence
- Sensorial characteristics is third most influential attribute in skin care product choices – Datamonitor
- Health & wellness

Benefits

- Transparent
- Moisturizing
- Transformational texture (from a light mousse to a smooth gel)

User Experience*

- Crackling effect recalls festive events and childhood (parties, candy)
- Creamy gel texture finished with a smooth, refreshed and moisturized skin feels indulgent

Cracking Water: Formulation

Cracking Water #1

Phase	Trade Name	% Wt.	INCI/CTFA Name	Supplier
Α	Water	27,00	Aqua/water	
Α	CELLOSIZE™ QP 4400H Rheology Modifier	0,50	Hydroxyethylcellulose	Dow
Α	Ethanol	20,00	Ethanol	WWR
Α	UCON™ Fluid AP Emollient	1,00	1,00 PPG-14 Butyl Ether	Dow
Α	Brij 721	1,00	Steareth-21	Croda
Α	Cremophor RH 40 Pharma	0,30	PEG-40 Hydrogenated Castor Oil	BASF
Α	Fragrance Sublim'Argan E_1023732	0,20	Parfum/Fragrance	Mane
В	n-Butane/Propane 2,5 bars	50,00	n-Butane/Propane	Inventec

Cracking Water #2

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Cold Water	30,30	Aqua/water	
Α	Experimental METHOCEL™ FGTTM32	0,50	Methylcellulose	Dow
Α	Brij 721	0,50	Steareth-21	Croda
Α	Ethanol	17,00	Ethanol	WWR
Α	Xiameter PMX-0245 Cyclopentasiloxane	1,00	Cyclopentasiloxane	Dow Corning
Α	Fragrance Sublim'Argan E_ 1023732	0,30	Parfum/Fragrance	Mane
В	n-Butane1,2 bars	50,00	n-Butane	Inventec

Processing Instructions:

- Introduce all ingredients step by step under vigorous stirring, in the following order, until full homogenization.
- 2. Add propellant in a system 50/50.
- Use Actuator Magic Mousse from precision.

- Disperse experimental METHOCEL™ in water at room temperature.
- Cool down to 4-7°C, and stir to achieve METHOCEL™ hydration.
- Introduce all other ingredients step by step under vigorous stirring, in the following order, until full homogenization.
- 4. Add propellant in a system 50/50.
- Use Actuator Magic Mousse from precision.





Aerated emulsions, creative textures

Experimental METHOCEL™
Rheology Modifiers facilitate the creation of light, aerated emulsions that quickly soak into the skin, for design of beauty products with creative textures and a fresh, airy feel.

Capabilities

- Experimental METHOCEL[™] Rheology Modifiers provide powerful foaming capability, together with high structuring benefits
- Water/Oil emulsions with extremely low densities can be prepared

Benefits

- Ability to create stable foam textures in a standard packaging format
 - Customization of foam density (higher or lower) and oil richness

Market Fit

- Creative texture with soothing sensory experiences
- Supports "indulgent" product positioning
- "Experience is the new luxury" – Euromonitor (Top Beauty Trends in 2014)

User Experience*

- An innovative emulsion format bringing new sensory experiences
- Creative product visuals that deliver bathroom shelf-presence
- Aerated texture offering fresh, light touch

Promising Clouds: Formulations

Delighting Cloud #2

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Cetiol LC or Cetiol CC	10,00	Coco Caprylate / Caprate or Dicaprylylcarbonate	BASF
Α	Experimental METHOCEL™ FGTTC14	1,00	Hydroxypropyl methylcellulose	Dow
Α	Experimental METHOCEL™ FGTTM32	1,00	Hydroxypropyl methylcellulose	Dow
Α	NEOLONE™ 950 Preservative	0,10	Methylchloroisothiasolinone / Methylisothiazolinone	Dow
В	Deionized Water (4-7°C)	84,90	Aqua/Water	
С	EcoSmooth [™] Delight	3,00	C14-22 alkane (and) ethylene octene copolymer	Dow

- Disperse Experimental METHOCEL™ grades into the oil.
- 2. Add preservative.
- Add cold DI water and apply smooth stirring for 1 min.
- Add EcoSmooth™ Delight, and apply immediately efficient stirring providing strong air introduction into the emulsion.
- Stir for 3 to 5 minutes (slow 1 min, then fast).
- Heat at 50°C for 15 minutes.





Turn gel into refreshing liquid

ACULYN™ 28 HASE technology with its high shear thinning characteristics helps gel to turn into watery liquid under shear. Hydrate your skin with icy cold gel that splashes into watery liquid when you gently rub it in, leaving skin feeling refreshed, supple and smooth.

Capabilities

- Anionic associative rheology modifier (HASE)
- High aqueous thickening and stabilizing efficiency
- High shear thinning characteristics enables gel to turn into watery liquid

Market Fit

- Sensory & indulgence
- New product experience: texture & format
- "Experience is the new luxury" – Euromonitor (Top Beauty Trends in 2014)

Benefits

- Ability to create highly aqueous gels that can break down quickly
- formulation appearance to an ice cube or crushed ice

User Experience*

- Excellent, fresh feel, smooth and moisturized after feel and nontackiness
- Looks like a hard gel, breaks down into watery refreshing texture upon application

Innovative Melt: "Revitalicious" Moisturizing Recovery Gel

"Revitalicious" Moisturizing Recovery Gel

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
A	Water	50.00	Water	
A	Biohyaluronic acid HA12N	0.05	Sodium Hyaluronate	Shiseido
В	Water	33.41	Water	
В	ACULYN™ 28	2.50	Acrylates/Beheneth-25 Methacrylate Copolymer	Dow
В	ACULYN™ Excel	0.65	Acrylates Copolymer	Dow
В	Glycerin	5.00	Glycerin	Dow
В	Butylene Glycol	3.00	Butylene Glycol	
В	Nikkol BS-20	0.50	Steareth-20	Nikko Chemicals
С	10% KOH solution	2.00	Potassium Hydroxide	
D	Citric Acid	0.03	Citric Acid	
E	Soluble Ceramide RC	0.02	Alpha-Glucan, Glucosyl Ceramide	Ichimaru Pharcos
E	Biocelact Aloevera B	0.10	Water, Butylene Glycol, Aloe Barbadensis Leaf Extract	Ichimaru Pharcos
F	Butylene Glycol	1.00	Butylene Glycol	
F	Methylparaben	0.20	Methylparaben	
F	NEOLONE™ PH100	0.50	Phenoxyethanol	Dow
G	Jojoba Scrubeads Blueberry Pie 20/40	0.05	Hydrogenated Castor Oil, Hydrogenated Jojoba Oil	Desert whale jojoba

Product Characteristics:

Parameter	Range	Method	
Appearance	Crystal Clear Gel with suspended beads	Visual	_
pH (10% solution)	6.5-7.0	pH meter	

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- Mix ingredients of Phase A until uniform.
- Mix ingredients of Phase B until uniform.
- Add Phase A into Phase B and mix until uniform.
- 4. Neutralize with Phase C.
- Adjust pH to pH 6.5–7.0 by adding Phase D.
- Add ingredients of Phase E in sequence and mix until uniform.
- Mix ingredients of Phase F until uniform.
- Add Phase Finto Phase A/B/C/D/E and mix until uniform.
- Disperse Phase G under gentle mixing.



Innovative Melt: Flash Melt

Flash Melt

Phase	Trade Name	% Wt.	INCI/CTFA Name	Supplier
Α	Deionized Water	72,00	Aqua/Water	-
Α	Keltrol CG-SFT	0,20	Xanthan gum	CP Kelco
Α	ACULYN™ 28 Rheology Modifier	5,00	Acrylates/Beheneth-25 Methacrylate Copolymer	Dow
В	Sheabutter	1,00	Shea butter	-
В	Cetiol LC	7,00	Coco Caprylate/Caprate	BASF
В	Brij-S20-PA (Steareth-20)	1,00	Steareth -20	Croda
В	Xiameter DC 200 (Dimethicone)	2,00	Dimethicone	Dow Corning
С	Butylene Glycol	8,00	Butylene glycol	-
С	Sodium hydroxide (10%)	qsp pH 6	sodium hydroxide	-
С	NEOLONE™ PH 100	0,83	Phenoxyethanol	Dow
С	Hydrolite 8 (Caprylyl Glycol)	0,68	Caprylyl Glycol	Symrise
С	Parfum	0,05	Fragrance	-
D	Deionized water	qsp 100%	Aqua/Water	-

Product Characteristics

Parameter	Range	Method
Appearance	White cream	Visual
pН	5,5-6,5	pH meter

- 1. Add the ingredients of Phase A and heat to 85°C.
- Add ingredients of Phase B and heat to 85°C.
- 3. Add Phase B to Phase A and stir for 10 minutes at high speed.
- Homogeneize for 3 min at 10 000 - 13 000 rpm.
- 5. Stir gentle mixing and cool down below 35°C.
- 6. Add ingredients of Phase C and adjust pH to 6,0.
 - Complete with deionized water qsp 100%.





Transforming textures

ACULYN™ 28 HASE technology facilitates unique textures transformation! Delight consumers with texture changes as CO2 serums transform to comfor-ting gels or mousses when sprayed onto skin – and then into refreshing, easy to apply textures as soon as they rub the product in!

Capabilities

- Gasification with CO2
 of an aqueous gel
 thickened with ACULYN™
 28 triggers pH switch and
 rheology modification
- Liquid transforms to foamy gel when sprayed, and turns back to watery liquid on skin

Benefits

- Ability to create innovative, standout products with surprising changing textures from just one spray-bottle
 - Ability to ease preservation in the presence of CO2

Market Fit

- Differentiated sensory experiences
- "Experience is the new luxury – Euromonitor (Top Beauty Trends in 2014)

User Experience*

- Different texture experiences from just one spray bottle!
- The comfort of a gel or mousse, the lightness of a liquid spray
- Products which deliver ingredients efficiently and fun to use!

Surprising Splash: Formulation

Surprising Splash

-				
Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deionised Water	93,30	Aqua/Water	-
Α	ACULYN™ 28 Rheology Modifier	3,25	Acrylate/Beheneth-25 Methacrylate Copolymer	Dow
Α	Cremophor RH-40	0,75	PEG-40 Hydrogenated Castor Oil	BASF
Α	UCON™ 75-H-450 Emollient	0,25	PEG/PPG-17/6 Copolymer	Dow
Α	EcoSense™ 3000 Surfacant	0,50	Decyl Glucoside	Dow
Α	NEOLONE™ PH100 Preservative	0,80	Phenoxyethanol	Dow
Α	Unicert Blue 05601-J (0.1% solution)	0,20	Cl42090/Blue 1	Sensient
Α	Fragrance Waterfall G11324574	0,05	Parfum/Fragrance	Robertet
В	Sodium Hydroxide (10% solution) gs to pH 7,5	1,00	Sodium hydroxide	-

- Mix ingredients of Phase A until uniform. Phenol Red (pH color indicator) may be added in phase A to visualise pH switch of the formulation.
- 2. Increase the pH to 7.5 by adding phase B.
- 3. Introduce gas CO₂ in the clear gel formulation using suitable process. Final CO₂ concentration in the gel shall be above saturation limit.





Transform liquid to creamy paste

Rheology Modifier ACULYNTM 44/ ACULYNTM 46N enables the transformation of flowable liquid to a creamy paste, and with a personalized, tailored level of formulation, transform your rinseoff hair conditioner/ daily moisturizers into an intensive hair/ night mask.

Capabilities

- ACULYN™ 44 /
 ACULYN™ 46N Rheology
 Modifier (nonionic HEUR)
 enables transformation of
 lotion to cream texture
- Liquid formula can easily be hand-mixed and are compatible at wide pH range

Benefits

- Prevents dripping/runny product by transforming diluted format to highly viscous format
 - Allow addition of actives at application stage

Market Fit

- Individualism & expression
- Growing demand for product customization through personalized product experience and individually tailored solutions

User Experience*

- "Do it yourself", enable customization to your own preference
- Hands-on experience to transform conditioner / moisturizer to mask and/or add actives for a richer treatment

Visionary Cream: "Prettify" Visionary Cream

"Prettify" Visionary Cream: Part 1 (base lotion)

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deionised Water	75,00	Aqua/Water	-
Α	OPTIM [™] Glycerin	5,00	Glycerin	Dow
Α	Carbopol Ultrez 10	0,20	Sodium carbomer	Lubrizol
Α	Lanette E	0,15	Sodium cetearyl sulfate	BASF
В	Tegin pellets	1,50	Glycerin stearate SE	Evonik
В	Crodamol IPP	1,50	Isopropyl Palmitate	Croda
В	Lanette O	1,00	Cetearyl alcohol	BASF
В	EcoSmooth™ Delight H Sensorial Enhancer	2,00	C14-22 alkane and Ethylene/ Octene Copolymer	Dow
В	Xiameter DC 200	0,50	Dimethicone	Dow Corning
В	Cetiol OE	4,00	Dicaprylyl ether	BASF
С	Ethanol	2,00	Alcohol	_
С	Tris Amino Ultra PC	qs pH 6-6,5	Tromethamine	Angus
С	NEOLONE™ PH100 Preservative	0,83	Phenoxyethanol	Dow
С	Hydrolyte 8	0,68	Caprylyl Glycol	Symrise
С	Deionised Water	qsp 100%	Aqua/Water	_

"Prettify" Visionary Cream: Part 2 (Texture modifier)

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	ACULYN™ 44 Rheology Modifier	100,00	PEG-150/Decyl Alcohol/SMDI Copolymer	Dow

"Prettify" Visionary Cream: Part 3 (Care ingredient)

	Trade Name	%Wt.	INCI/CTFA Name	Supplier
	Lipovol Sun	100,00	Helianthus Annuus (Sunflower) Seed Oil	Vantage
Or	Crodamol GTCC	100,00	Caprylic/Capric Triglyceride	Croda

- Mix ingredients of Phase A under high speed stirring, and heat up to 85°C.
- Mix ingredients of Phase B under high speed stirring, and heat up to 85°C.
- 3. Add Phase B to Phase A and stir for 10 min at 1000 rpm.
- Homogenize for 3 min at 10,000 rpm.
- 5. Cool down to 45°C.
- Add ingredients of Phase C under gentle mixing.



Visionary Cream: "Idiosyncrastically Yours" Hair Conditioner / Mask

"Idiosyncrastically Yours" Hair Conditioner/Mask

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
A	Aqua/Water	60.41	Aqua/Water	
Α	INCROMINE BD-PA	1.5	Behenamidopropyl dimethylamine	
Α	Lanette O	4.00	Cetearyl Alcohol	
A	BHT	0.05	BHT	
Α	UCON [™] Fluid AP Emollient	1.00	PPG-14 Butyl Ether	Dow
Α	Lactic Acid (85% active)	0.52	Lactic Acid	
В	Aqua/Water	31.43	Aqua/Water	
В	VERSENE™ Na2 crystals	0.10	Disodium EDTA	Dow
В	SoftCAT™ SX-1300X	0.15	Polyquaterium-67	Dow
В	POLYOX™WSR N-60K	0.15	PEG-45M	Dow
В	Propylene Glycol USP/EP	0.50	Propylene Glycol	Dow
С	Parfum/Fragrance	0.10	Parfum/Fragrance	
С	KATHON™ CG Preservative	0.09	Methylchloroisothiazolinone/ Methylisothiazolinone	Dow
BOOSTER	ACULYN [™] 46N	_	PEG 150/Stearyl Alcohol/SMDI Copolymer	Dow
TREATMENT ENHANCER	High Oleic Sunflower Refined Oil	-	Sunflower Seeds Oil	

Product Characteristics:

Parameter	Range	Method
Appearance	White	Visual
pH (as is)	4.5-5.5	pH meter
Viscosity (cps)	9,000-12,000	Brookfield Viscometer LV#3,6 rpm

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- Mix all ingredients from Phase A in list, start warming to 80°C and stirring at 300 rpm during 30 mins.
- When the 80°C is reached increased speead of stirring to 400 rpm for 5 minutes.
- Disperse ingredients from Phase B separately in water until complete solubilization.
- Mix Phase B into Phase A and cool the temperature to 40–45°C.
- Add ingredients from Phase C under stirring.



Creating beautiful oil suspensions

ETHOCEL™ and ACULYN™ Oil & Water Phase Thickeners facilitate the creation of beautiful beauty products with transparent oil beads suspended in gel formats, offering the comforting feel of an oil, balanced with the light, fresh feel of water - as well as greater scope for creative visuals.

ETHOCEL™ Oil
Thickeners allows
the adjustment of the
oil drop texture and
densities. Tuning
pigment densities
also allows special
visual effects

ACULYN™ Aqueous phase thickeners stabilize the oil containing droplets; high shear thinning characteristics enables the gel like formulation to turn to watery liquid when applied on skin (under spreading shear)

Capabilities

 Visual "on-shelf" impact by suspending droplets of oil based formulations in clear transparent aqueous gels
 ETHOCEL™ and ACULYN™ thickeners deliver high-care oil-based products with a fresh, light, non-greasy feel

Market Fit

- On-shelf impact
- Sensory & Indulgence

Benefits

- Solves challenge of oilbased products in a water phase delivery system
 - Ability to combine premium, high care, oilbased products with a fresh, light feel

User Experience*

 An innovative, visually appealing product format that offers the indulgence of caring oil with the light feeling of water

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Dreamy Droplets: Dewdrop

"Dewdrop" Dreamy Droplets: Aqueous Phase

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deionised Water (4-7°C)	93,30	Aqua/Water	-
Α	ACULYN™ 28 Rheology Modifier	2,00	Acrylate/Beheneth-25 Methacrylate Copolymer	Dow
Α	ACULYN™ 88 Rheology Modifier	2,00	Acrylates/Steareth-20 Methacrylate Crosspolymer	Dow
В	Sodium Hydroxide (10% solution)	qs to pH 7,3	Sodium hydroxide	-
С	NEOLONE™ PH100 Preservative	0,80	Phenoxyethanol	Dow
С	Hydrolyte 8	0,60	Caprylyl Glycol	Symrise

"Dewdrop" Dreamy Droplets: Oil Phase "Prodigious Honey"

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
А	Myritol 331	10,00	Coco-glycerides	BASF
Α	UCON™ Fluid AP Emollient	10,00	PPG-14 Butyl Ether	Dow
Α	Eutanol G	74,00	Octyldodecanol	BASF
В	ETHOCEL™ STD 100 Premium Oil Thickener	3,50	Ethylcellulose	Dow
С	Cloisonne Sparkle Gold	0,50	Mica (and) Titanium Dioxide (and) Iron Oxide	BASF
С	Colorona Oriental Beige	0,20	Mica (and) Titanium Dioxide (and) Iron Oxide	Merck
D	Lipofructyl Argan LS	1,00	Argania Spinosa Kernel Oil	BASF
D	D-alpha-Tocopheryl Acetate	0,50	Tocopheryl Acetate	DSM
D	Fragrance Sublim' Argan E_ 1023732	0,30	Fragrance	Mane

Processing Instructions:

- 1. Mix ingredients of Phase A under stirring.
 - Slowly add ingredients of Phase B to reach targeted pH.
 - Maintain stirring until pH is completely stabilized (complete thickeners neutralization).
- 4. Add ingredients of Phase C under gentle mixing.

- Mix ingredients of Phase A until uniform.
- Introduce ingredient of Phase B and premix at 1000-1500 rpm for 15 min to create a dispersion.
- Start heating to 85°C while continuing stirring.
- Maintain at 85°C under stirring for at least 20-30 minutes to allow ETHOCEL™ swelling.
- Check that the formulation has become clear and particle-free.
- Cool down to 70-75°C and then introduce ingredients of Phase C under stirring.
- Cool down to 45°C to introduce ingredients of Phase D.





Softer skin without the stickiness

EcoSmooth™ Delight Sensorial Enhancer helps create light, nongreasy formulations which leave skin soft, smooth and beautifully moisturized – without that "tacky" after-feeling.

Capabilities

- Dual structure polyolefin to keep skin hydrated and moisturized without greasiness
- Easy to apply and distribute
- Format flexibility from body lotions to in-shower creams

Market Fit

- Sensory & indulgence
- Sensorial characteristics is third most influential attribute in skin care product choices – Datamonitor
- "Experience is the new luxury"
 Euromonitor (Top Beauty Trends in 2014)

Benefits

- A little goes a long way
- Ability to structure the oil phase
- Offers affordable luxury
 - Compatible with emollients and silicones

User Experience*

- Skin feels nourished all day long
- Soft, smooth and comforting
- Non-greasy, non-tacky after-feel
- A pleasant in-use experience

Wonderful Wave: Delighting Shower

Delighting Shower

Deligin	ing Snowei			
Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deionised Water	49,46	Aqua/Water	-
Α	METHOCEL™ 40-0202 Functional Thickener	0,50	Hydroxypropyl methyl cellulose	Dow
Α	SoftCAT™ SK-MH Conditioning Polymer	0,30	Polyquaternium-67	Dow
В	ACULYN™ 88 Rheology Modifier	3,57	Acrylates/Steareth-20 Methacrylate Crosspolymer	Dow
В	Empicol ESB-70 (70% active)	15,71	Sodium lauryl ether sulphate	Huntsman
С	Empigen BSFA (30% active)	8,33	Cocoamidopropyl betaine	Huntsman
D	EcoSmooth™ Delight H Sensory Enabler	20,00	C14-22 alkane and Ethylene/ Octene Coplymer	Dow
Е	Sodium Hydroxide	0,18	Sodium Hydroxide	-
Е	Sodium Benzoate	0,80	Sodium Benzoate	-
F	Citric acid (qs pH specification)	0,95	Citric acid	-
G	Extra Care E_ 1023731	0,20	Parfum/Fragance	Mane

Product Characteristics

Parameter	Range	Method
Appearance	White emulsion	Visual
Viscosity	20 000-28 000	Brookfield Viscometer, LV #4, 12 rpm
pH	4,5-4,8	pH meter

- Mix ingredients of Phase A and stir until a clear slightly viscous solution is obtained.
- 2. Add ingredients of Phase B individually and stir until complete dissolution.
- 3. Add ingredient of Phase C.
- Add ingredient of Phase D and heat up to 80°C. Stir until complete dissolution is obtained and maintain temperature and stirring for an additional 10 minutes. Then, remove the heat and allow a slow cooling down to room temperature still under stirring.
- Add ingredients of Phase E individually.
- 6. Add ingredient of Phase F to adjust the pH to the specification.
- 7. Add ingredient of Phase G.



Wonderful Wave: "Beau Delight" Formulation

Beau Delight

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deinoized Water	78,00	Aqua/ Water	-
Α	OPTIM™ Glycerin	2,50	Glycerin	Dow
Α	Carbopol Ultrez 10	0,20	Sodium carbomer	Lubrizol
Α	Lanette E	0,15	Sodium cetearyl sulfate	BASF
В	Tegin pellets	1,50	Glycerin stearate SE	Evonik
В	Crodamol IPP	0,75	Isopropyl palmitate	Croda
В	Lanette O	0,50	Cetearyl alcohol	BASF
В	EcoSmooth™ Delight	2,00	C14-22 alkane and Ethylene/Octene Copolymer	Dow
В	Xiameter DC 200	0,50	Dimethicone	Dow Corning
В	Cetiol OE	2,00	Dicaprylyl ether	BASF
С	Ethanol	1,45	Ethanol	-
С	Tris amino ultra PC	qsp pH 6-6,5	Tromethamine	Angus
С	NEOLONE™ PH 100	0,83	Phenoxyethanol	Dow
С	Hydrolite 8	0,68	Caprylyl Glycol	Symrise
С	Parfum BDF	0,05	Parfum / Fragrance	-
D	Deionized Water	qsp 100%	Aqua / Water	-

Skin Lotion Reference without ESD

Phase	Trade Name	%Wt.	INCI/CTFA Name	Supplier
Α	Deinoized Water	78,00	Aqua/Water	-
Α	OPTIM™ Glycerin	2,50	Glycerin	Dow
Α	Carbopol Ultrez 10	0,20	Sodium carbomer	Lubrizol
Α	Lanette E	0,15	Sodium cetearyl sulfate	BASF
В	Tegin pellets	1,50	Glycerin stearate SE	Evonik
В	Crodamol IPP	0,75	Isopropyl palmitate	Croda
В	Lanette O	0,50	Cetearyl alcohol	BASF
В	Xiameter DC 200	0,50	Dimethicone	Dow Corning
В	Cetiol OE	2,00	Dicaprylyl ether	BASF
С	Ethanol	1,45	Ethanol	-
С	Tris amino ultra PC	qsp pH 6,0-6,5	Tromethamine	Angus
С	NEOLONE™ PH 100	0,83	Phenoxyethanol	Dow
С	Hydrolite 8	0,68	Caprylyl Glycol	Symrise
С	Parfum BDF	0,05	Parfum / Fragrance	-
D	Deionized Water	qsp 100%	Aqua / Water	-

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Processing Instructions:

- Add the ingredients of Phase A and heat to 85°C.
- Add ingredients of Phase B and heat to 85°C under efficient mixing to ensure melting of EcoSmooth™ Delight.
- Add Phase B to Phase A and stir for 10 minutes at high speed.
- 4. Homogeneize for 3 min at 10 000 13 000 rpm.
- 5. Stir gentle mixing and cool down below 35°C.
- 6. Add ingredients of Phase C and adjust pH to 6,0 6,5.
- Complete with deionized water qsp 100%.

Product Characteristics

Parameter	Range	Method
Aspect	White gel	Visual
pН	6,0 -6,5	pH meter
Viscosity	3 000 - 6 000 cP	Brookfield Viscosimeter LV#4,30 rpm





Optical blurring with great feel

EcoSmooth™ OptiTouch helps us create better versions of ourselves, by reducing appearance of fine lines and wrinkles and skin imperfections with an additional velvety touch.

Capabilities

 Monodispersed polyolefin with high refractive index

- Outstanding blurring and matifying effect without whiteness
- Delivers velvety skin feel
- From facial care to foundations

User Experience*

- No whitening effects
- Can be added to the water phase

Benefits

- Very efficient at levels as low as 3% active
 - Multi-functional. offering sensory and optical properties

Market Fit

- Sensory & indulgence
- Health & youth
- Over six in 10 consumers (51% male, 72% female) say they worry about fine lines and wrinkles -Datamonitor
- Even skin tone
- Improved complexion
- Less visible lines and wrinkles appearance reduction of lines and wrinkles
- Velvety feel

Ravishing Velvet: Moisturizing Eye Serum

Moisturizing Eye Serum with ESO #2

Trade Name	%Wt.	INCI/CTFA Name	Supplier
Deionized Water	38,00	Aqua / Water	-
ACULYN™ 28 Rheology Modifier	3,00	Acrylates/Beheneth-25 Methacrylate Copolymer	Dow
ACULYN™ Excel Rheology Modifier	1,00	Acylates Copolymer	Dow
Deionized Water	2,48	Aqua / Water	-
HA12N	0,025	Sodium Hyaluronate	Shiseido
EcoSmooth™ OptiTouch	18,75	Ethylene/Octene Copolymer (and) Ethylene/SodiumAcrylate Copolymer	Dow
Deionized Water	30,00	Aqua / Water	-
POLYOX™WSR-301 Sensory Enhancer	0,025	PEG-90M	Dow
DC 190	0,25	PEG/PPG-18/18 Dimethicone	Dow Corning
NEOLONE™ PH100 Preservative	0,83	Phenoxyethanol	Dow
Hydrolite 8	0,68	Caprylyl Glycol	Symrise
Fragrance	0,15	Fragrance	-
Citric Acid (10% aq.)	qsp pH6-6,5	Citric Acid	-
Deionized Water	1,98	Aqua / Water	_
SoftCAT™ SL-100 Conditioning Polymer	0,025	Polyquaternium-67	Dow
Deionized Water	qsp 100	Aqua / Water	_
	Deionized Water ACULYN™ 28 Rheology Modifier ACULYN™ Excel Rheology Modifier Deionized Water HA12N EcoSmooth™ OptiTouch Deionized Water POLYOX™ WSR-301 Sensory Enhancer DC 190 NEOLONE™ PH100 Preservative Hydrolite 8 Fragrance Citric Acid (10% aq.) Deionized Water SoftCAT™ SL-100 Conditioning Polymer	Deionized Water 38,00 ACULYN™ 28 Rheology Modifier 1,00 ACULYN™ Excel Rheology Modifier 1,00 Deionized Water 2,48 HA12N 0,025 EcoSmooth™ OptiTouch 18,75 Deionized Water 30,00 POLYOX™ WSR-301 Sensory Enhancer 0,025 DC 190 0,25 NEOLONE™ PH100 Preservative 0,83 Fragrance 0,15 Citric Acid (10% aq.) qsp pH6-6,5 Deionized Water 1,98 Deionized Water 1,98 SoftCAT™ SL-100 Conditioning Polymer 0,025	Deionized Water 38,00 Aqua / Water ACULYN™ 28 Rheology Modifier 3,00 Acrylates/Beheneth-25 Methacrylate Copolymer ACULYN™ Excel Rheology Modifier 1,00 Acylates Copolymer Deionized Water 2,48 Aqua / Water HA 12N 0,025 Sodium Hyaluronate EcoSmooth™ OptiTouch 18,75 Ethylene/Octene Copolymer (and) Ethylene/SodiumAcrylate Copolymer Deionized Water 30,00 Aqua / Water POLYOX™ WSR-301 Sensory Enhancer 0,025 PEG-90M DC 190 0,25 PEG/PPG-18/18 Dimethicone NEOLONE™ PH100 Preservative 0,83 Phenoxyethanol Hydrolite 8 0,68 Caprylyl Glycol Fragrance 0,15 Fragrance Citric Acid (10% aq.) qsp pH6-6,5 Citric Acid Deionized Water 1,98 Aqua / Water Deionized Water 1,98 Aqua / Water

Product Characteristics

Parameter	Range	Method
Aspect	White gel	Visual
pH	6,0 - 6,5	pH meter
Viscosity	15000 - 20000 mPa • s	Brookfield Viscometer LV#4, 30 rpm, 25°C

Processing Instructions:

- Prepare phase B, phase D and phase F separately by dissolving powder ingredients into water with vigorous stirring.
- Introduce ACULYN in deionized water and mix.
- Add phase B into phase A and mix until uniform.
- Add phase C slowly and mix until uniform.
- Add phase D and ingredients of phase E in sequence under moderate stirring.
- Add phase F under moderate stirring.
- Complete with deionized water qsp 100%.



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