



PERSONAL CARE STARTING POINT FORMULATIONS

Water-in-Oil Lotion

	Wt.	Trade name	INCI* name	Supplier	Function
A	20.0%	Eastman GEM™	Ethylhexyl Palmitate	Eastman Chemical Co.	Emollient
	1.0%	Cithrol™ DPHS	PEG-30 Dipolyhydroxystearate	Croda Inc.	W/O Emulsifier
	0.5%	CAB-O-SIL® TS-622	Silica Dimethyl Silylate	Cabot Corporation	Rheology modifier
B	72.5%	Water	Water	-	-
	5.0%	Zemea®	Propanediol	DuPont Tate & Lyle Bio Products Company, LLC	Humectant
	1.0%	Germaben® II	Propylene glycol, Diazolidinyl urea, Methyl paraben, and Propyl paraben	Ashland Inc.	Preservative

*INCI: International Nomenclature of Cosmetic Ingredients

Procedure:

- ◆ Phase **(A)** - Melt and mix emulsifier; add emulsifier to slightly warmed emollient with propeller agitation; add rheology modifier to emollient/emulsifier with propeller agitation.
- ◆ Add **(B)** to **(A)** very slowly with propeller stirring.

Water-in-Oil Soft Cream

	Wt.	Trade name	INCI name	Supplier	Function
A	20.0%	Eastman GEM™	Ethylhexyl Palmitate	Eastman Chemical Co.	Emollient
	1.0%	Cithrol™ DPHS	PEG-30 Dipolyhydroxystearate	Croda Inc.	W/O Emulsifier
	1.0%	CAB-O-SIL TS-622	Silica Dimethyl Silylate	Cabot Corporation	Rheology modifier
B	72.0%	Water	-	-	-
	5.0%	Zemea®	Propanediol	DuPont Tate & Lyle Bio Products Company, LLC	Humectant
	1.0%	Germaben® II	Propylene glycol, Diazolidinyl urea, Methyl paraben, and Propyl paraben	Ashland Inc.	Preservative

Procedure:

- ◆ Phase **(A)** - Melt and mix emulsifier; add emulsifier to slightly warmed emollient with propeller agitation; add rheology modifier to emollient/emulsifier with propeller agitation.
- ◆ Add **(B)** to **(A)** very slowly with propeller stirring.
- ◆ Potential applications: eye cream, facial cream

STARTING POINT FORMULATIONS

Water-in-Oil Firm Cream

	Wt.	Trade name	INCI name	Supplier	Function
A	20.0%	Eastman GEM™	Ethylhexyl Palmitate	Eastman Chemical Co.	Emollient
	1.0%	Cithrol™ DPHS	PEG-30 Dipolyhydroxystearate	Croda Inc.	W/O Emulsifier
	1.0%	CAB-O-SIL® TS-622	Silica Dimethyl Silylate	Cabot Corporation	Rheology modifier
B	71.0%	Water	–	–	–
	5.0%	Zemea®	Propanediol	DuPont Tate & Lyle Bio Products Company, LLC	Humectant
	1.0%	Germaben® II	Propylene glycol, Diazolidinyl urea, Methyl paraben, and Propyl paraben	Ashland Inc.	Preservative
C	1.0%	CAB-O-SIL TS-622	Silica Dimethyl Silylate	Cabot Corporation	Rheology modifier

Procedure:

- ♦ Phase (A) - Melt and mix emulsifier; add emulsifier to slightly warmed emollient with propeller agitation; add rheology modifier to emollient/emulsifier with propeller agitation.
- ♦ Add (B) to (A) very slowly with propeller stirring.
- ♦ Add [C] slowly with propeller stirring.

Oil-in-Water Pickering Emulsion

	Wt.	Trade name	INCI name	Supplier	Function
A	20.0%	Eastman GEM	Ethylhexyl Palmitate	Eastman Chemical Co.	Emollient
	1.0%	Span™ 20	Sorbitan Laurate	Croda Inc.	Blooming agent
B	73.0%	Water	–	–	–
	3.0%	Zemea	Propanediol	DuPont Tate & Lyle Bio Products Company, LLC	Humectant
	0.3%	Keltrol® CG	Xanthan Gum	CPKelco	Hydrocolloid stabilizer
	2.0%	CAB-O-SIL M-5	Silica	Cabot Corporation	Emulsifier
	0.7%	Germaben II	Propylene glycol, Diazolidinyl urea, Methyl paraben, and Propyl paraben	Ashland Inc.	Preservative

Procedure:

- ♦ Phase (A) - Mix emollient and blooming agent with propeller agitation until uniform
- ♦ Phase (B) - Disperse hydrocolloid stabilizer into water/humectant with propeller agitation; add emulsifier with propeller agitation until uniform; add preservative.
- ♦ Add (A) to (B) with propeller agitation.
- ♦ Homogenize 2 minutes.
- ♦ Potential application: daily cream

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