24hr Moisturizing Water Gel with SPF15 (expected)
14781-42

Description

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This moisturizing formula features HYDROVANCE® moisturizing agent (50% solids) that provides an excellent moisturization, increases skin elasticity, and
enhances tactile sensory properties of formulations.

24hr Moisturizing Water Gel with SPF15 (expected) contains as well our Elfacos® emulsifiers range enabling cost effecient, easy to process and pleasing W/O emulsions.
ELFACOS® E200 emulsifier is a higly effective W/O emulsifier and has high water binding capacity.
Elfacos® ST 9 which has an excellent stablilizing effect on emulsions.Having a high capacity to absorb water and oil, a relatively low percentage is needed in cosmetic formulae.

The pleasing rheology is obtained by combining two naturally derived rheology modifiers:
Derived from potatos, STRUCTURE® SOLANACE starch is used in this formulation to create a unique light rheology in a low pH system.
STRUCTURE® XL starch can aid in emulsion stabilization, aesthetics enhancement and viscosity-build. The ease of use and immediate dispersability in cold water make it ideal for use in continuous manufacturing processes.

Finally the after-feel on the skin is due to DRY-FLO® TS starch is modified tapioca starches which enhance the aesthetics of a broad variety of skin care products. Perhaps the most distinctive property of these unique products is its ability to impart a pleasant light, dry, and silky after-feel to finished formulations.

Formula

Trade Name	INCI Name	% w/w	Supplier
Phase A			
Deionized Water	Water (Aqua)	64.80%	Local
STRUCTURE® SOLANACE starch	Potato Starch Modified	2.00%	**AkzoNobel**
STRUCTURE® XL starch	Hydroxypropyl Starch Phosphate	1.20%	**AkzoNobel**
Phase B			
Elfacos® E 200 emulsifier	Methoxy PEG-22/Dodecyl Glycol Copolymer	5.00%	**AkzoNobel**
Elfacos® ST 9	PEG-45 / Dodecyl Glycol Copolymer	2.00%	**AkzoNobel**
Cetiol® CC	Dicaprylyl Carbonate	3.00%	BASF Care Creations
XIAMETER® PMX-0245	Cyclopentasiloxane	1.00%	Dow Corning Corp
Neo Heliopan® OS	Ethylhexyl Salicylate	0.50%	Symrise
Neo Heliopan® AV	Ethylhexyl Methoxycinnamate	1.00%	Symrise
Phase C			

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Trade Name	INCI Name	% w/w	Supplier
Tinosorb® S Lite Aqua	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (and) Acrylates/C12-22 Alkyl Methacrylate Copolymer	5.00%	BASF Care Creations
HYDROVANCE® moisturizing agent (50% solids)	Hydroxyethyl Urea	10.00%	**AkzoNobel**
Citroflex® 2	Triethyl Citrate	0.50%	Vertellus Performance Materials Inc.
Phase D			
DRY-FLO® TS starch	Tapioca Starch (and) Polymethylsilsesquioxane	3.00%	**AkzoNobel**
Microcare® PEHG	Phenoxyethanol (and) Ethylhexylglycerin	1.00%	Thor
25% Citric Acid Solution	Citric Acid (and) Water	0.00%	Local
	Total:	**100.00%**	

Procedure

1. Prepare Phase A: Add water to the batch and stir with a propeller stirrer. Add STRUCTURE® SOLANACE starch and STRUCTURE® XL starch to the vortex and heat the batch at 75°C. Mix well until obtaining a thick translucent gel.

2. Prepare Phase B: In a seperate beaker mix all ingredients and melt everything at 75°C., until homogenous.

3. When Phase A & B are ready, add Phase A to Phase B with a high shear homogenezer (Silverson, Ultra Turax) and homogenize until the emulsion is formed (white emulsion).

4. Start cooling down the batch an keep mixing with a propeller stirrer and add one by one all ingredients of Phase C. Mix well in-between.

5. When Batch temperature is below 40°C add DRY-FLO® TS starch to the batch. Mix well until homogenous.

6. Add remaining ingredients and drop the batch.

ALTERNATIVE PROCESS: COLD PROCESS

a. Prepare Phase A: Add water to the batch and stir with a propeller stirrer. Add STRUCTURE® SOLANACE starch and STRUCTURE® XL starch to the vortex and heat the batch at 75°C. Mix well until obtaining a thick translucent gel.

b. Let phase A cool down at room temperature.

c. Prepare Phase B: Mix all the ingredients of phase B to obtain a homogenous liquid paste at room temperature.

d. When Phase A & B are ready, add Phase A to Phase B with a high shear homogenezer (Silverson, Ultra Turax) and homogenize until the emulsion is formed (white emulsion).

e. Back to the propeller stirrer, add one by one all ingredients of Phase C. Mix well in-between.

f. Add DRY-FLO® TS starch to the batch. Mix well until homogenous.

g. Add remaining ingredients and drop the batch.

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Properties

Appearance	White Lotion
pH	5.5<pH<6.5
Brookfield Viscosity	Target = 12000 cPs Min = 8000 cPs Max = 16000 cPs Method Parameters = Brookfield RVF, T-Spindle, 10 rpm, 25°C

Packaging

Airless Bottle and Pump, White with Overcap, Clear (#29940) from QOSMEDIX (https://www.qosmedix.com/packaging)

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