

All Night Shimmer: A Sparkling Night Cream Using Novemer® EC-1 Polymer and Carbopol® Ultrez 21 Polymer

This sparkling night cream provides even spreading of glitter and leaves a light skin afterfeel. This cream was developed using low levels of emulsifier and demonstrates that **Novemer® EC-1 Polymer** can be used as a primary emulsifier for up to 15 wt. % oil. **Carbopol® Ultrez 21 Polymer** is added to improve the product stability.

Ingredient / INCI-CTFA Name	Weight, %	Function	Trade Name (Supplier)
PART A			
1. Deionized Water	76.95	Diluent	
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.10	Rheology Modifier	Carbopol® Ultrez 21 Polymer (Noveon, Inc.)
3. Glycerin	2.00	Humectant	Pricerine® 9099 (Uniqema)
PART B			
4. Acrylates/Acrylamide Copolymer (and) Mineral Oil (and) Polysorbate-85 (27%)	2.00	Emulsifier and Sensory Enhancer	Novemer® EC-1 Polymer (Noveon, Inc.)
5. Cyclomethicone	3.00	Emollient	Dow Corning® 345 Fluid (Dow Corning)
6. Octyldodecyl Myristate	5.00	Emollient	MOD® (Gattefossé)
7. Theobroma Cacao (Cocoa) Seed Butter	1.50	Emollient	Cocoa Butter (Jan Dekker)
8. Phenyl Trimethicone (and) Dimethicone/Phenyl Vinyl Dimethicone Crosspolymer	0.50	Skin Conditioning Agent	KSG 18 (Shin-Etsu)
9. Cetearyl Isononanoate	5.00	Emollient	Cetiol® SN (Cognis)
PART C			
10. Kiwi (<i>Actinidia Chinensis</i>) Fruit Water	2.00	Active Ingredient	Kiwi Extract (Gattefossé)
PART D			
11. Propylene Glycol, Diazolidinyl Urea, Methylparaben, Propylparaben	0.70	Preservative	Germaben® II (ISP)
PART E			
12. Perfume	0.25	Perfume	Perfume 011473 "Fleur de Vanille" (Ipra France, S.A.)
13. Polypropylene and Polystyrene and Ethylene/ VA Copolymer	0.50	Glitter	Creasparkles 460 Yellow (Creation Couleurs)
14. Polypropylene and Polystyrene and Ethylene/ VA Copolymer	0.50	Glitter	Creasparkles 610 Violet (Creation Couleurs)

Notebook #021212-1 CR

(OVER→)

PROPERTIES*:

Appearance	White cream with colored glitter
pH	6.2 - 6.5
Viscosity (mPa-s)**	20,000 - 26,000
Stability	Passed 2 months @ 45°C, passed 1 month @ 55°C Passed 5 cycles freeze/thaw

Novemer® EC-1 Polymer Solids (wt. %): 0.54

* Measured after 24 hours

**Brookfield RVT @ 20 rpm, 25°C, #6 spindle

PREPARATION PROCEDURE:

1. Sprinkle **Carbopol® Ultrez 21 Polymer** on the surface of deionized water. After the polymer has thoroughly wet-out, mix at low speed.
2. Add the remaining PART A ingredient. Heat the mixture to 55-60°C.
3. Combine PART B ingredients in a separate vessel with slow agitation and heat to 55-60°C. (PART B ingredients are not homogenous at this time.)
4. Add PART B to PART A while mixing.
5. Allow to cool down with continued mixing.
6. At 35-40°C, add PART D and PART E ingredients in order and mix until uniform.