

## Hair Serum

Phase	I.N.C.I. name	Commercial name	%
A	Aqua	—	81.65
	Disodium EDTA	EDTA Disodium	0.10
	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	Carbopol® XTRA 11 (Lubrizol)	0.50
B	Acrylates Crosspolymer-3	Fixate™ Freestyle (Lubrizol)	1.00
C	Isopropanolamine	MIPA 99% (Baoli)	0.45
D	Water, Propylene Glycol, Alcohol, Sodium PCA, Sodium Lactate, Arginine, Aspartic Acid, Pca, Glycine, Alanine, Serine, Valine, Proline, Threonine, Isoleucine, Histidine, Phenylalanine, Medicago sativa (Alfafa) Extract, Humulus lupulus (Hops) Extract, Rosmarinus officinalis (Rosemary) Extract, Melilotus officinalis Extract	Capilmax™ (Novachem)	1.00
E	Aqua	—	10.00
	Pullulan	Pullulan (Nagase)	0.30
	Maltooligosyl Glucoside / Hydrogenated Starch Hydrolisate	MG-60 (Nagase)	1.00
F	Phenoxyethanol, Ethylhexylglycerin	euxyl® PE9010 (Schülke)	1.00
	C13-15 Alkane	Neossance® Hemisqualane	2.00
	Cyclomethicone (and) Dimethiconol	Mirasil® C-DML LV (Bluestar Silicones)	0.50
G	Fragrance	—	0.50

### **Protocol**

- 1) Weigh the water, solubilize the EDTA and disperse the Carbopol XTRA 11 under constant stirring (~ 800rpm). Keep stirring for about 10-15 min until the powder is fully dispersed
- 2) Adjust the pH to 6.5 to 6.8 with the Isopropanolamine and mix
- 3) Solubilize phase E previously and add in the main phase. Add the remaining stages one by one and homogenize after each addition
- 4) Add Phase F items one by one while stirring, homogenizing well after each addition

### **Properties**

**Appearance:** Whitish gel

**pH:** 7

**Viscosity:** 18000 cps (Brookfield RVT @ 20rpm, # 6 spindle)

