BRILLIANTLY CLEAR HAIR GEL

with Floraesters K-20W® Jojoba

A brilliant, clear hair gel that provides hold without sacrificing flexibility. This clear gel utilizes **Floraesters K-20W Jojoba** to impart shine, conditioning, and a degree of water resistance while acting as the neutralizer for the polymer system, thus forming a clear gel without the need for synthetic amines or metal hydroxides.

Phase	Trade Name	INCI	Supplier	%WT
A	Deionized Water	Water	- - - - -	q.s.
	Carbopol® Ultrez 21 Polymer	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	The Lubrizol Corporation	0.50
B	Deionized Water	Water	- - - - -	16.60
	Florasolvs® PEG-150 Hydrogenated Jojoba	Jojoba Oil PEG-150 Esters	The HallStar Company	1.00
C	**Floraesters K-20W Jojoba**	**Hydrolyzed Jojoba Esters (and) Water (Aqua)**	**Cargill Beauty**	**4.00**
	Solubilisant® LRI	PPG-26-Buteth-26 (and) PEG-40 Hydrogenated Castor Oil	Sensient Cosmetic Technologies	3.00
	Ethanol Solutions 3, UN 1170, PG II, SDA 40-2, 200 Proof	Alcohol Denat.	Remet Corporation	6.00
D	PVP/VA W-735	VP/VA Copolymer	International Specialty Products	5.00
	Deionized Water	Water	- - - - -	5.00
E	Color	Color	- - - - -	q.s.
	Preservative	- - - - -	- - - - -	q.s.

CHARACTERISTICS

- **pH:** 5 - 6
- **Viscosity:** ≥ 120kcP

Cargill Beauty
Unleashing Nature
Sustainably

PROCESS

1. Disperse the Carbopol Ultrez 21 Polymer into the deionized water at room temperature. Allow sufficient time for complete hydration of the Carbopol Ultrez 21 Polymer.
2. Heat the deionized water of Phase B to 65°C and add the Florasolvs PEG-150 Hydrogenated Jojoba with stirring until dissolved.
3. At room temperature, dissolve the Floraesters K-20W Jojoba in the Ethanol Solutions 3, UN 1170, PG II, SDA 40-2, 200 Proof. Once dissolved, add the Solubilisant LRI to this mixture.
4. Dilute the PVP/VA W-735 with the deionized water listed in Phase D at room temperature.
5. Neutralize Phase A with Phase C. With complete mixing, pour Phase C into Phase A at a very slow pace (Avoid adding too quickly or the gel may form white agglomerates). Allow time for complete mixing until it becomes a clear gel.
6. Add Phase B to Phase AC with sweep action mixing at room temperature.
7. Add Phase D to Phase ABC with sweep action mixing at room temperature.
8. Slowly add Phase E to Phase ABCD with sweep action mixing at room temperature.

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