

Spray Hair Gel

This spray gel formulation provides good wet combability and styling properties along with enhanced humidity resistance in a "no-drip" formulation. **Fixate®* G-100 polymer** provides excellent hold without the tackiness associated with many fixative polymers.

Ingredient / INCI-CTFA Name	Weight, %	Function	Trade Name (Supplier)
1. Deionized Water	92.60	Diluent	
2. Carbomer	0.70	Rheology Modifier	Carbopol® 980 Polymer (Noveon, Inc.)
3. Methylparaben	0.20	Preservative	
4. Glycerin	2.00	Humectant	
5. DMDM Hydantoin	0.20	Preservative	Glydant® (Lonza)
6. AMP-Acrylates/Allyl Methacrylate Copolymer (26%)	3.80	Fixative	Fixate® G-100 Polymer (Noveon, Inc.)
7. Aminomethyl Propanol	0.50 (q.s.)	Neutralizer	AMP-95® (Dow)

2154-002-99-83

(OVER→)

PROPERTIES:

Appearance	Clear gel
pH	5.8 - 6.3
Viscosity (mPa·s)*	5,000 - 10,000
Clarity (% T)**	90 - 95
Stability	Passed 3 months @ 45°C Passed 5 cycles freeze/thaw

Fixate® G-100 Polymer Solids (%) 1.0

*Brookfield RVT @ 20 rpm, #5 spindle

**Brinkmann PC 920 colorimeter, 420 nm

PREPARATION PROCEDURE:

1. Add deionized water in a suitable vessel to contain entire batch. Retain small portion of water to rinse in Step 2.
2. Slowly sift in **Carbopol® 980 polymer** into vortex of rapidly mixing water. Add methylparaben. Use rinse water from Step 1 to rinse any remaining **Carbopol® 980 polymer** and methylparaben. Mix dispersion until no lumps are present.
3. Add glycerin and Glydant. Mix until uniform.
4. Add **Fixate® G-100 polymer** slowly, adjusting mixing speed as necessary. (Adjust amount of **Fixate® G-100 polymer** according to % solids of lot used.)
5. Add AMP-95 when uniform, adjusting pH to 5.8 – 6.3. Mix until uniform.

NOTE: Recommended sprayer is Calmar Mark IV high pressure, 1.8 lb. precompression spring, WT 25 Actuator Orifice. (Calmar, Inc.: Fax: 816-246-3520 / Tel: 800-599-2124)