

A New Technology for African American Hair from Dow Corning



Meet consumer needs for healthier and more manageable hair

The ethnic hair care market has specialized needs – hair is typically drier, more curly, brittle and fragile. Further damage is often caused by harsh treatments like straightening and heat styling. With performance-enhancing materials from Dow Corning, you can develop hair care products that better relax, protect and shine – differences the consumer will notice and appreciate.

An Answer for Ethnic Hair

Our newest solution for ethnic hair care is *Dow Corning*[®] brand 2-2078 Fluid. This is a newly patented silicone copolymer with both amino and phenyl functionality. It can be used in leave-in products (water-based and anhydrous systems), relaxers, rinse-off products, colorants and perms to achieve a number of benefits including:

- ▶ Straightening that smoothes curly, unmanageable hair (see Figure A)
- ▶ Long-lasting shine for frizzy hair (see Figure B)
- ▶ Heat protection for hair exposed to hair dryers, curling irons and other harsh heat treatments
- ▶ Color protection from shampoo washes when used in permanent colorants
- ▶ High pH stability for use in relaxers, colorants and perms



Figure A: Straightening in Relaxers

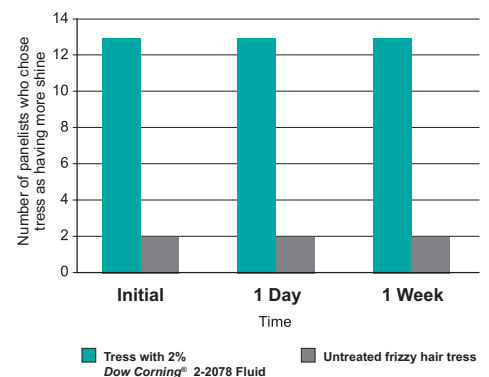


Commercial Lye Relaxer without *Dow Corning*[®] 2-2078 Fluid



Commercial Lye Relaxer with 2% *Dow Corning*[®] 2-2078 Fluid

Figure B: Long-Lasting Shine on Frizzy Hair



With Dow Corning, you can easily create new and improved products for the ethnic hair care market. The following are three formulations to help get you started.

Golden Hair Dressing

Formulation 00344

Ingredient	Wt. %	Trade Name/Supplier
PHASE A		
1. Aminopropyl Phenyl Trimethicone	2.0	Dow Corning® 2-2078 Fluid
2. Isopropyl Myristate	4.0	Stepan IPM/Stepan Company
PHASE B		
3. C30-45 Alkyl Methicone	3.5	Dow Corning® AMS-C30 Cosmetic Wax
PHASE C		
4. Petrolatum	41.0	White Protopet 1S/Witco Corporation
5. Microcrystalline Wax	6.5	Microcrystalline Wax White 1275/Frank B. Ross Company
6. Lanoline	13.0	Lanolin USP/Fisher Chemical Company
7. Mineral Oil	30.0	Mineral Oil/No Supplier Specified

Procedure

1. Mix ingredients of Phase A together.
2. Introduce Phase B to Phase A and heat.
3. Mix gently until melted.
4. Add Phase C ingredients.
5. Heat to 80°C until all ingredients are melted.
6. Mix until uniform.
7. Remove mixture from heat and continue mixing while cooling to room temperature.

Mild Relaxer

Formulation 00567

Ingredient	Wt. %	Trade Name/Supplier
PHASE A		
1. Aminopropyl Phenyl Trimethicone	2.0	Dow Corning® 2-2078 Fluid
2. Emulsifying Wax	10.0	Polawax/Croda, Inc.
3. Cetearyl Alcohol	1.0	Lanette O/Cognis Corporation
4. Petrolatum	25.0	
5. Mineral Oil	12.0	Carnation/Crompton Corporation
PHASE B		
6. Deionized Water	44.5	
7. Propylene Glycol	3.0	Propylene Glycol USP/FCC/ Fisher Chemical Company
PHASE C		
8. Sodium Hydroxide (50% Solution)	2.5	Sodium Hydroxide (50% Solution)/Acros Organics

Procedure

1. Mix ingredients of Phase A together.
2. Heat to 75°C with stirring.
3. Mix ingredients of Phase B together.
4. Heat to 75°C with stirring.
5. Add Phase B to Phase A with mixing.
6. Mix for 15-30 minutes.
7. Cool to 45°C.
8. Add Phase C with mixing.
9. Mix until uniform.
10. Cool to room temperature.
11. Homogenize.

Shine Spray with Jojoba

Formulation 00565

Ingredient	Wt. %	Trade Name/Supplier
PHASE A		
1. Ethyl Alcohol 200 Proof	3.0	
2. Aminopropyl Phenyl Trimethicone	2.0	Dow Corning® 2-2078 Fluid
PHASE B		
3. Cyclopentasiloxane	89.5	XIAMETER® PMX-0245 Cyclopentasiloxane
4. Isododecane	5.0	Fanco-ID CG/Fanning Corporation
5. Jojoba (Simmondsia Chinese) Seed Oil	0.5	Jojoba Oil Colorless/ Desert Whale Jojoba Co. Inc.

Procedure

1. Mix ingredients of Phase A together.
2. Mix until uniform.
3. Add Phase B ingredients in order.
4. Mix until uniform after each addition.

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