



Technical Data Sheet

DOWSIL™ AP-8087 Fluid

FEATURES & BENEFITS

- Aminofunctional siloxane polymer
- 100% active
- Excellent wet and dry combing performance
- Improves hair smoothness
- Enhances hair shine
- Reduces hair static
- Color protection

INCI Name: Bis-Hydroxy/Methoxy Amodimethicone

APPLICATIONS

A range of hair care applications including:

- Shampoos and rinse-off conditioners
- Leave-in conditioning treatments
- Colorants
- Styling products

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Appearance		Clear, colorless to light yellow
Viscosity	cP	3,000 to 8,000
Specific gravity		0.98
Amine Neutral Equivalent		6,500 to 9,000

DESCRIPTION

DOWSIL™ AP-8087 Fluid is an aminofunctional siloxane polymer. It has a lower amine content, but higher molecular weight, compared to other Dow amino silicones. DOWSIL AP-8087 Fluid provides conditioning performance comparable to traditional amino silicones.

DOWSIL AP-8087 Fluid provides excellent conditioning performance, including improvements in wet and dry combing in shampoos and rinse-off conditioners. Formulations with DOWSIL AP-8087 Fluid showed less yellowing compared to those with traditional amino silicones. When used in rinse-off and leave-in conditioners, DOWSIL AP-8087 Fluid reduces the loss of color in colored hair. In addition, DOWSIL AP-8087 Fluid, when used in leave-on applications, enhances hair shine and smoothness and reduces hair static.

HOW TO USE

DOWSIL AP-8087 Fluid can be emulsified into water-based systems. Table 1 provides compatibility data for DOWSIL AP-8087 Fluid.

HANDLING PRECAUTIONS
PRODUCT SAFETY
INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 25°C (77°F) in original unopened containers this product has a usable life of 540 days from the date of production.

PACKAGING INFORMATION

This product is available in 18 kg pails and 200 kg drums.

Samples are available in 1kg bottles.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

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The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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Table 1: Compatibility Chart (Ratios are DOWSIL AP-8087 Fluid: Other Material).

Other Material	1:1	1:9
Esters		
C12-15 Alkyl Benzoate	NC ¹	
Caprylic/Capric Triglyceride	NC	
Isopropyl Isostearate	C ²	
Isopropyl Myristate	C	
Isopropyl Palmitate	C	
Diisopropyl Adipate	NC	
Fatty Alcohols/Acids		
Lauryl Alcohol	NC	
Octyldodecanol	NC	
Oleyl Alcohol	NC	
Hydrocarbons		
Mineral Oil	NC	
Hydrophilics		
Ethanol 200 Proof	NC	NC
Propylene Glycol	NC	NC
Deionized Water	NC	NC
Glycerin	NC	NC
Sunscreen Actives		
Octyl Methoxycinnamate	NC	
Vegetable Oils		
Almond Oil	NC	
Jobba Oil	NC	
Lanolin Oil	NC	
Sunflower Oil	NC	
Miscellaneous		
Isododecane	C	C
Isopar H	C	C
Polydecene	NC	NC
DOW Materials		
Cyclopentasiloxane (and) Dimethiconol	C	C
Dimethicone (and) Dimethiconol	C	C
Dimethicone, 100 cSt	C	C
Dimethicone, 350 cSt	C	C
Cyclopentasiloxane	C	C
Cetyl Dimethicone	NC	
Stearyl Dimethicone	NC	
Phenyltrimethicone	C	
Dimethicone (and) Trimethylsiloxysilicate	C	
Dimethicone (and) Trisiloxane	C	C
Dimethicone, 5 cSt	C	C

¹NC = Not Compatible²C = Compatible

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DOWSIL™ AP-8087 Fluid

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PROTOTYPE FORMULATIONS

A. Conditioning Shampoo (CPF 1094)		
Ingredients:	Wt. %	Trade Name/Supplier
Phase A		
1. Cocamide DEA	3.0	Cocamide DEA/Universal Preserv – A Chem. Inc.
2. Bis-Hydroxy/Methoxy Amodimethicone	2.0	DOWSIL AP-8087 Fluid
Phase B		
3. Tetrasodium EDTA	0.2	Versene™ 220/The Dow Chemical Company
4. Cocamidopropyl Betaine	7.0	Lonzaine® C/Lonza Inc.
Phase C		
5. Deionized Water	53.6	
6. Polyquaternium-10	0.3	
7. Sodium Laureth Sulfate	30.0	Calfoam® ES-303/Pilot Chemical
8. PEG-120 Methylglucose Dioleate	1.5	Glucamate™ DOE-130/Lubrizol Corporation
9. Ethylene Glycol Distearate	2.0	Mackester™ GSTP/McIntyre Group, Ltd.
Phase D		
10. DMDM Hydantoin	0.4	Glydant®/Lonza Inc.

Procedure:
1. Mix ingredients of phase A together.
2. In a separate vessel, add phase B ingredients together and mix.
3. In a separate vessel, combine phase C ingredients in order.
4. Add Ingredient 5.
5. Add ingredient 6 with mixing.
6. Add ingredient 7 and mix until uniform.
7. Heat to 60°C to 70°C.
8. Add ingredient 8 with mixing.
9. Add ingredient 9 and mix.
10. Mix until melted.
11. Cool to 60°C with mixing.
12. Add phase A and phase B to phase C.
13. Cool to 40°C.
14. Add ingredient 10 and mix until uniform.
15. Adjust pH to 6–7 with Citric Acid.

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Mackester™ is a trademark of McIntyre Group, Ltd.

B. Shine Spray (CPF 1045)		
Ingredients:	Wt. %	Trade Name Supplier
Phase A		
1. Cyclopentasiloxane	92.5	XIAMETER® PMX-0245 Cyclopentasiloxane
2. Bis-Hydroxy/Methoxy Amodimethicone	1.5	DOWSIL AP-8087 Fluid
3. Ethylhexyl Methoxycinnamate	0.5	PARSOL® MCX /DSM Nutritional Products
4. Jojoba (Simmondsia Chinensis) Seed Oil	0.5	Jojoba Oil Colorless/Desert Whale Jojoba Co. Inc.
5. Isododecane	5.0	Fancol® ID CG/Elementis Specialties, Inc
Procedure:		
1. Combine ingredients in order.		
2. Mix until uniform after each addition.		

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