



DOWSIL™ AP-8041 Fluid

Amino functional siloxane polymer for textile finishing softener

Features & Benefits

- Provide soft textile hand feel
- Non yellowing
- 100% actives
- Volatile cyclics within SVHC limits
- Micro and macro emulsifiable

Applications

- Textile finishing softener
- Cotton, synthetics and blended fabrics
- Suitable for white and colored fabrics
- Easily formulated into stable microemulsion suitable for padding and exhaustion fabric applications

Typical Properties

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

Property	Unit	Result
Appearance		Clear to slightly hazy fluid
Viscosity at 25°C (77°F)	cP	3000-4500
Nitrogen	mmol/g	0,1
Cyclotetrasiloxane (D4) content	Wt %	< 0.1
Cyclopentasiloxane (D5) content	Wt %	< 0.1
Cyclohexasiloxane (D6) content	Wt %	< 0.1

Description

DOWSIL™ AP-8041 Fluid is a new low amino functionalized silicone containing low levels of volatile cyclics siloxanes and designed for the formulation of textile finishes. DOWSIL™ AP-8041 Fluid offers a good balance of performance attributes ideal for today's demanding textile finishes applications.

When applied to textile substrates DOWSIL™ AP-8041 Fluid imparts good soft and silky hand feel while virtually maintaining the original substrate whiteness.

How to Use

DOWSIL™ AP-8041 Fluid can be readily made into a microemulsion using a range of commercially available surfactants. The formulation given in Table 1 and method is given as an example, but other surfactants can be substituted if required providing their hydrophilic-lipophilic balance (HLB) value is comparable. Please contact your local surfactant suppliers for the HLB information.

Method of Emulsification

Table 1: Suggested Formulation

Ingredients	% Content
DOWSIL™ AP-8041 Fluid	20
Synperonic 13 -6.5	10
Acetic acid	0,15
Water 1	6
Water 2	6
Water 3	26,1
Balance Water	31,9
Biocide	

Method

1. Add DOWSIL™ AP-8041 Fluid and acetic acid; mix 15 minutes.
2. Add emulsifiers; mix for 10 minutes
3. Add water 1; stir for 30 minutes
4. Add water 2; stir for 30 minutes
5. Add water 3; stir for 30 minutes
6. Add balanced water and biocide; mix for 15 minutes until uniform product is achieved
7. Filter and drum off

Note: Sample formulations are provided for illustrative purposes only. Dow does not warrant their merchantability, fitness for use, performance, efficacy, safety, or freedom from patent infringement. They are not commercial formulations and they have not been subject to extensive testing. It is your responsibility to thoroughly test any formulation before use.

Method of Application

Recommended application level is 0,3-1,0% DOWSIL™ AP-8041 Fluid on weight of fabric (OWF) for conventional finishing applications. Emulsion based on DOWSIL™ AP-8041 Fluid are slightly cationic and suitable for application by padding and/or exhaustion.

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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

Product should be stored at or below 40°C (104 °F) in original, unopened containers.

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, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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