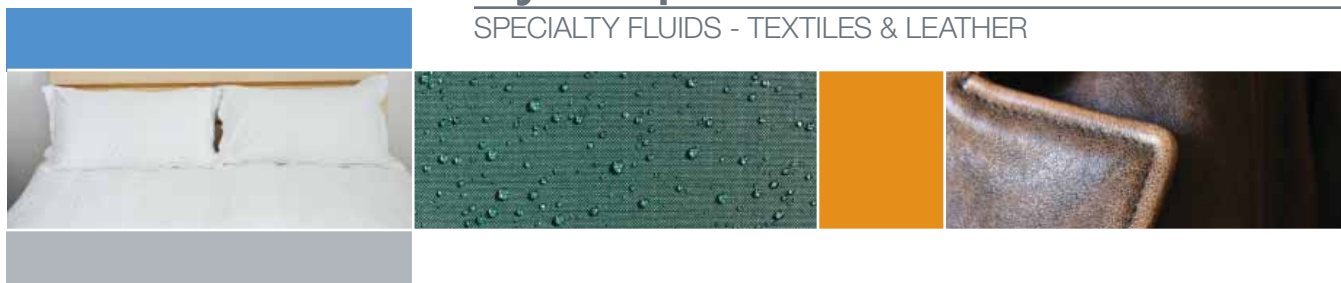


MAGNASOFT* HWS

hydrophilic textile softener

SPECIALTY FLUIDS - TEXTILES & LEATHER



Magnasoft HWS hydrophilic softener is an epoxy polyether terpolymer that can provide hydrophilicity and a soft, full hand when applied to a variety of knit and woven fabrics. It can provide excellent softness with virtually no yellowing when applied to natural and synthetic fibers such as cotton and polyester. Magnasoft HWS hydrophilic softener typically imparts instant rewetting character to fabrics and does not interfere with the soil-release properties of fabrics that are treated with fluorocarbon soil-release agents.

Dilutions of Magnasoft HWS hydrophilic softener are extremely shear stable and can be considered for use in jet dye and EVAC systems. Fabrics treated with Magnasoft HWS hydrophilic softener can often be redyed, unlike many traditional silicone softeners.

Key Features and Typical Benefits

- Can impart excellent softness to most types of fabrics
- May be considered for use on difficult-to-rework fabrics
- Dilutions are extremely shear stable
- Can provide instant rewetting properties to fabrics
- Does not typically contribute to fabric yellowing
- Does not typically interfere with the soil-release properties of fabrics that are treated with fluorocarbon soil-release agents
- Easily diluted with water
- Water dilutions have excellent compatibility with finishing baths

Typical Physical Properties

Appearance	Clear, slightly yellowish liquid
Viscosity at 25 °C, cSt	3,000
Specific Gravity, 25/25 °C	1.0
Solubility in Water	Dispersible
Ionic Nature	Nonionic
Percent Actives, %	100

Typical properties are average data and are not to be used as or to develop specifications.

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General Instructions for Preparing an Aqueous Dispersion of Magnasoft HWS Hydrophilic Softener

To prepare stable aqueous dispersions of Magnasoft HWS hydrophilic softener, slowly pour the silicone into the vortex of the total water (preferably tepid) while mixing at ~400 rpm.

Typical viscosity of Magnasoft HWS hydrophilic softener when diluted in water

	Viscosity (cPs)
15% in Water	340
20% in Water	490

General Instructions for Preparing a Clear Concentrate of Magnasoft HWS Hydrophilic Softener

1. Emulsion Concentrate Formulation

Magnasoft HWS Hydrophilic Softener	70
Iconol TDA-6 ⁽¹⁾ Surfactant	1.4
Iconol TDA-10 ⁽¹⁾ Surfactant	2.8
Water	25.8

(1) BASF Corporation

Note: Test data. Actual results may vary.

Preparation

1. Premix Magnasoft HWS hydrophilic softener and mix with moderate speed for at least three minutes.
2. Increase stirring speed to generate a small vortex and slowly add water at a rate that allows the water to be incorporated. Mix for an additional ten minutes.

The resulting concentrate should be a clear, dilutable liquid with excellent stability.

Product formulations are included as illustrative examples only. Momentive makes no representation or warranty of any kind with respect to any such formulations, including, without limitation, concerning the efficacy or safety of any product manufactured using such formulations.

Table 1: Magnasoft HWS Hydrophilic Softener Performance Results on 100% Cotton Knit (1% BOWF)

	Magnasoft HWS hydrophilic softener	Competitive Product	Untreated
Softness ⁽¹⁾	5.3	4.0	2
Wettability (s)	<1	<1	<1
Whiteness (initial)	79.45	-	82.35
Whiteness (scorched)	57.60	-	58.64

(1) Softness was rated by a hand panel of 5 people. 6 = very soft, 1 = harsh.

Table 2: Magnasoft HWS Hydrophilic Softener Performance Results on 100% Cotton Terry Cloth (1% BOWF)

	Magnasoft HWS hydrophilic softener	Competitive Product	Untreated
Softness ⁽¹⁾	5.5	4.0	2
Wettability (s)	1	1	<1
Whiteness (initial)	62.6	-	59.12
Whiteness (scorched)	49.88	-	43.87

(1) Softness was rated by a hand panel of 5 people. 6 = very soft, 1 = harsh.

Table 3: Magnasoft HWS Hydrophilic Softener Performance Results on 65/35 PE/Cotton Print Cloth (1% BOWF)

	Magnasoft HWS hydrophilic softener	Competitive Product	Untreated
Softness ⁽¹⁾	5.3	4	2
Wettability (s)	6.6	5.0	33.2
Whiteness (initial)	91.9	-	91.27
Whiteness (scorched)	79.16	-	79.81

(1) Softness was rated by a hand panel of 5 people. 6 = very soft, 1 = harsh.

Note: Test data. Actual results may vary.

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Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. MSDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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