

Magnasoft* HWS

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Description

Magnasoft HWS hydrophilic softener is a novel epoxy polyether terpolymer that provides hydrophilicity and a soft full hand when applied to a variety of knit and woven fabrics. Magnasoft HWS hydrophilic softener has been demonstrated to provide excellent softness with virtually no yellowing when applied to natural and synthetic fibers such as cotton and polyester. Magnasoft HWS hydrophilic softener 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 are suitable 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 Benefits

- Imparts excellent softness to all types of fabrics
- Safe and easy to use on difficult to rework fabrics
- Dilutions are extremely shear stable
- Provides instant rewetting properties to fabrics
- Does not contribute to fabric yellowing
- Will not 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, cPs	3300
Specific Gravity, 25/25°C	1.0
Solubility in Water	Dispersible

Ionic Nature	Nonionic
Percent Actives, %	100

Processing Recommendations

Recommended Method 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.

Viscosity of Magnasoft HWS hydrophilic softener when diluted in water

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

Recommended Method 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

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 is a clear dilutable liquid with excellent stability.

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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.

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.

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For product prices, availability, or order placement, contact our customer service at

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