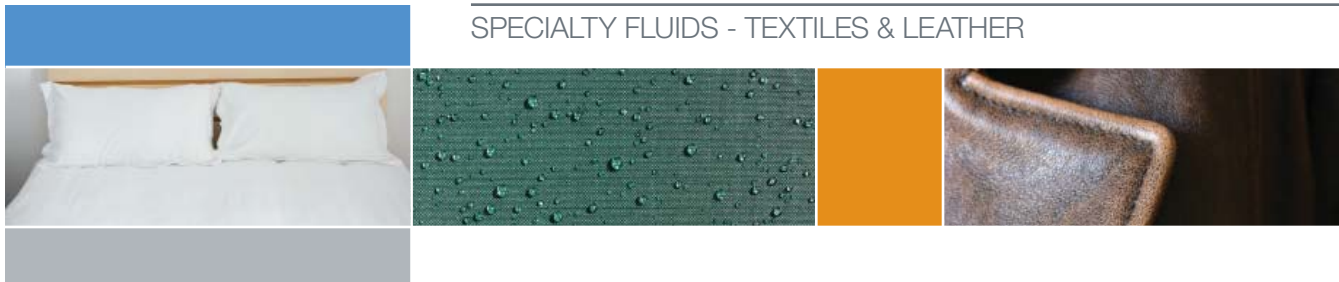


MAGNASOFT* 238 textile enhancer

SPECIALTY FLUIDS - TEXTILES & LEATHER



Magnasoft 238 is a new textile enhancer based on our patented (AB)_n technology that has given rise to world-renowned products such as Magnasoft SRS textile enhancer, Magnasoft JSS textile enhancer and Magnasoft Derma NT textile enhancer. Magnasoft 238 textile enhancer can help provide outstanding softness and slickness to fabrics and garments, while minimizing the problem of yellowing, shear stability and thermal migration. This new product is water dispersible and can be effective at dosage levels three to four times lower than amino silicone fluids.

Magnasoft 238 textile enhancer may be used on a variety of fabrics but may be most beneficial for synthetics, synthetic/cotton blends, polyester fleece and wool.

Key Features and Typical Benefits

- Linear molecular architecture
- High molecular weight
- Hindered amine functionality
- Combines hydrophilic and silicone moieties
- Low viscosity

Typical Physical Properties

Property	Unit	Value
Appearance	–	Pale yellow liquid
Viscosity at 25°C	cSt	5000
Specific Gravity	–	1.046
Amine Content	%	0.12
Preferred Diluent	–	Water

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

MAGNASOFT* 238 textile enhancer

How to Use

Magnasoft 238 textile enhancer may be considered for use in textile finishing of all synthetics, synthetic/cotton blends, polyester fleece and wool. It typically provides good lubricity and hand-feel during the manufacture of polyester fleece. Magnasoft 238 textile enhancer may also be used on cotton fabrics.

Magnasoft 238 textile enhancer should be used at a dosage level of 3-5 g/liter in the bath. Higher dosage levels are not recommended and in certain cases, may be detrimental to the performance of this product. Even though Magnasoft 238 textile enhancer is one of the most stable silicone finishes in the market, it is best to use soft water for its dilutions. If this not available, it is prudent to test the complete bath for stability before applying it in production.



10% dilution of Magnasoft 238 textile enhancer

15% Microemulsion of Amino Silicone Fluid TSF 4708

Performance Comparison

Table 1. Magnasoft 238 Textile Enhancer Hand-Feel Comparison

	Softness/Slickness	Hydrophilicity (sec.)	Whiteness (170°C, 1 min.)
Polyester Woven	4.3	>180	52
PW Untreated	2.5	50	53
Cotton Knit	4.4	>180	140
CK Untreated	2.5	1	142
Polyester Fleece	3.7	180	NA
Polyviscose	4.7	>120	NA
Polyester / Cotton	4.6	>120	NA
PA / Lycra†	4.6	>120	NA

†Lycra is a trademark of INVISTA

**5 - Best softness; 1- Worst softness
6 Panelists; 5 Fabrics**

Note: Test results. Actual results may vary.

Softness tested as per ATCC evaluation procedure 5

Hydrophilicity tested as per ATCC-79-1995

Whiteness tested as per ATCC test method 110-1995

	Magnasoft 238 Textile Enhancer				Amino Emulsion ⁽¹⁾		Untreated
	1.5 g/L	2 g/L	3 g/L	4 g/L	15 g/L	30 g/L	
Cotton Knit	4.1	4.4	4.5	4.7	4.3	4.6	2.5
Polyester Woven	4.3	4.6			4.4		3

(1) 15% Amino micro emulsion

2 g/L of Magnasoft 238 textile enhancer provided better softness and slickness on Cotton Knit and Polyester Woven than Amino Emulsion at 15 g/L

Note: Test results. Actual results may vary.

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Performance Comparison (continued)

Table 2. Magnasoft 238 Textile Enhancer vs. Amino Silicone Fluid: Whiteness

Sample Description	Whiteness Index		
	Cotton Knit	Cotton Woven	Polyester Woven
1.5 g/L of Magnasoft 238 textile enhancer	151	63	59
2 g/L of Magnasoft 238 textile enhancer			57
3 g/L of Magnasoft 238 textile enhancer	150	63	
4 g/L of Magnasoft 238 textile enhancer	150	63	
15 g/L of 15% Amino	135	61	56
30 g/L of 15% Amino	131	58	
Untreated	151	64	59

Table 3. Magnasoft 238 Textile Enhancer vs. Amino Silicone Fluid: Thermal Stability

pH	4	7	10
Magnasoft 238 textile enhancer	Stable to 100°C	Stable to 90°C	Stable to 60°C
Amino Emulsion	Hazy with free oil after cooling	Fails after 60°C	Fails at room temperature

Magnasoft 238 textile enhancer had reduced yellowing (Whiteness tested as per ATCC test method 110-1995)

Note: Test results. Actual results may vary.



Top View of Magnasoft 238 textile enhancer at pH 7 at 70°C
1% actives dispersion in water
Clear, no oiling observed



Top view of Amino emulsion at pH 7 at 70°C
1% actives dispersion in water
Hazy, oiling observed

Note: Test results. Actual results may vary.

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Performance Comparison (continued)

Table 4. Magnasoft 238 Textile Enhancer vs. Amino Silicone Emulsion: Shear Stability

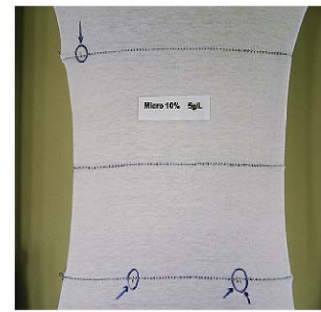
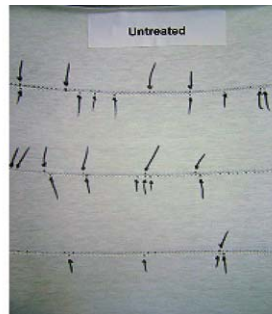
Sample Description	Dosage	After Shearing for 30 min.
10% dilution of Magnasoft 238 textile enhancer	2% based on wt. of solution	Clear, no oiling observed
20% microemulsion of Amino	2% based on wt. of solution	Clear, slight oiling observed



**Magnasoft 238
textile enhancer
after shearing at 3000 rpm
for 30 mins**

Table 5. Magnasoft 238 Textile Enhancer vs. Amino Emulsion: Sewingability

g/lt	Needle Holes / Meter of Seam	
	Magnasoft 238 Textile Enhancer	Amino
5	0	5
7.5	0	3
10	0	0



Note: Test results. Actual results may vary.

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Performance Comparison (continued)

Table 6. Magnasoft 238 Textile Enhancer vs. Amino Emulsion: Thermomigration

Finish	99 / 1 PA / Spandex	50 / 50 Polycotton	50 / 50 Polyrayon
Magnasoft 238 textile enhancer	1.3	2.5	2.3
Amino Emulsion	7.4	3.8	6.4

5% change is allowable



PolyA/Spandex



PolyE/Cotton



PolyE/Rayon

Note: Test results. Actual results may vary.

MAGNASOFT* 238 textile enhancer

Packaging

Magnasoft 238 textile enhancer is available in pails of 19kgs net weight and in drums of 212kgs net weight.

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, and any special storage conditions required for safety. MSDS are available at www.momentive.com or, upon request, from any Momentive Performance Materials (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 these other materials.

Limitations

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

MAGNASOFT* 238 textile enhancer

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products.

<u>Location</u>	<u>Emergency Service Provider</u>	<u>Emergency Contact Number</u>
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Canada	CHEMTREC	1-800-424-9300
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Middle East	NCEC	+44 (0) 1235239671
Asia Pacific (except China)	NCEC	+44 (0) 1235239670
China	NCEC	+86-10-5100-3039
Latin America (except Brazil)	NCEC	+44 (0) 1235239670
Brazil	SOS Cotec	08000111767 or 08007071767
All other locations world wide	NCEC	+44 (0) 1235239670
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For Health related calls, contact Momentive Performance Materials at +1-518-233-2500 (English only).

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

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