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VERSAGEL® MG T SERIES

A Silky Choice For Formulators

■ INTRODUCTION

The VERSAGEL® MG T series offers an alternative to silicones for formulating personal care products when a silky, elegant after-feel is desired. The VERSAGEL® MG T line is based on hydrogenated polydecene combined with Penreco's patented gel technology. The gellant system for the MG T series is comprised of proprietary synthetic polymers which allow the gels to be clear, stable, and thermally reversible and is BHT free. Previous studies on the VERSAGEL® technology have shown that Penreco's gelled products offer superior moisturization when compared to neat products. As with all VERSAGEL® products, the film-forming, moisturizing, and suspension capabilities of the MG T gels is virtually unparalleled. VERSAGEL® MG T comes in three viscosity grades:

VERSAGEL® MG 500 T / VERSAGEL® MG 750 T / VERSAGEL® MG 1600 T

■ TYPICAL PROPERTIES

	Viscosity @ 25° C (cPs)	Specific Gravity @ 25° C	Color ASTM D156	Flash Point ASTM D92
VERSAGEL® MG 500 T	64,400 CPS	0.82	+28	>175 C
VERSAGEL® MG 750 T	95,000 CPS	0.82	+28	>175 C
VERSAGEL® MG 1600 T	160,000 CPS	0.82	+28	>175 C

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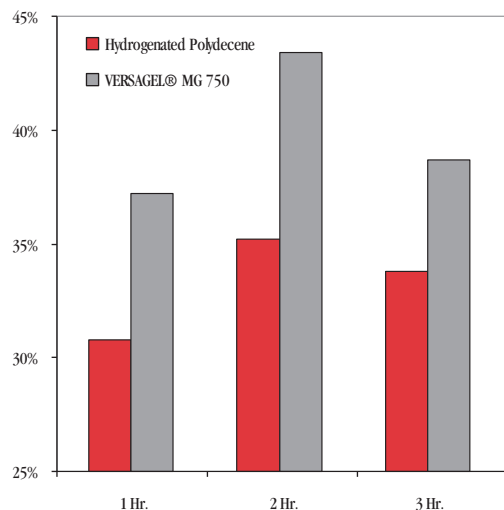
■ INCI NAME

Hydrogenated Poly (C6-14 Olefin) (and) Ethylene/Propylene/Styrene Copolymer (and) Butylene/Ethylene/Styrene Copolymer and Pentaerythrityl Tetra-di-t-butyl Hydroxyhydrocinnamate.

■ TEWL REDUCTION

A clinical study was conducted by an independent laboratory to evaluate the comparative efficacy of gelled hydrogenated poly (VERSAGEL® MG 750) and ungelled hydrogenated poly. Thirteen subjects completed the study. Following the baseline transepidermal water loss measurement, TEWL measurements were taken at the 1st, 2nd, and 3rd hour after the application. Test results indicate that the gelled hydrogenated poly (VERSAGEL® MG 750) outperformed the neat hydrogenated poly at each hour of the test period. The test concludes that VERSAGEL® MG 750 exhibits better occlusivity and barrier function on skin than the same material ungelled (See Figure 1).

Figure 1 Average Percent Improvement From Baseline



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Hydrocal® Calsol® Calpro® Calpar® Orchest® Versagel® Synergel® Drakesol® Conosol® MagieSol® Drakeol® Parol® Inkol®



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■ **SUSPENSION VEHICLE**

A unique property of the VERSAGEL® products is their suspension capability for fine particles. VERSAGEL® MG T can be utilized as suspension vehicles for fine particles or encapsulated liquids. Applications include:

- zinc oxide
- titanium dioxide
- iron oxide, talc
- decorative glitters
- encapsulated nutrients such as Vitamin E and Vitamin C

■ **COMPATIBILITY**

VERSAGEL® MG T gels are compatible with most of the chemical ingredients used in cosmetic and personal care products. The VERSAGEL® MG T gels are compatible with most non-ionic surfactants and other synthetic and natural emollients.

■ **APPLICATIONS**

- Lotions
- Lip Gloss
- Lipsticks
- Make-up
- Massage Products
- Shower Moisturizers
- Hair Care Products

■ **TOXICITY**

The VERSAGEL® MG T series belongs to a family of anhydrous gels which are considered “nontoxic” according to OSHA Hazard Communication Standard, 29 CFR 1910.1200, Appendix A (6), and the consumer Products Safety Commission, 16CFR 1500.3 (c) (2) (I) (A).

■ **HANDLING**

VERSAGEL® MG T is available in 350 lb. open head steel drums.

■ **TECHNICAL ASSISTANCE**

For technical assistance, please call our Customer Service at 800-245-3952.

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