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**Anti-Redeposition Properties of Laundry Products, CSPA DCC-14**

**Prepared for**

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Scope: The purpose of this study is to compare the performance characteristics of laundry detergents. The study is for measuring the ability of detergents to prevent the deposition of soils from detergent solutions onto fabrics.

Standards: CSPA DCC-14 December 1991 (2003) Guidelines for Anti-Redeposition Properties of Laundry Products

Products Tested:

Product	UPC#	Lot#
Purex Triple Action h-e Laundry Detergent LC#13-T0067	2420099867	PM2L062L80
Liquid Laundry Detergent LC#15-T0732	-	T20934

Procedure: Swatches of clean fabrics are washed in solutions of the test detergent prepared to contain known amounts of particulate and oily soils. The ability of the test detergent to prevent soil deposition is estimated by comparing the difference in Y color values of the swatches before and after washing.

The Y color value for each swatch type is determined with a Hunter colorimeter 45/0 using a UV filter, prior to washing and after 1 wash cycle.

The following fabrics are used in each of the laundry tests:

Cotton - Bleached Desized Cotton Print Cloth Style 400 lot#2026
Polyester - Texturized Dacron 56T Double knit Jersey Style 720 lot#4970

The swatches are then laundered as follows:

Model: Lightning Mixer  
Settings: 100rpm  
Water temperature: 37.0°C  
Water: 1000 mL of 50 ppm water hardness with a calcium to magnesium ratio of 2:1.  
Soil Load: Eight Ground in Clay on Cotton 400 swatches or 8 Dust Sebum on Cotton 400 swatches, from Scientific Services

Each of the clean fabrics are tested in duplicate and measured two times per swatch while stacked on top of each other during measurement, (as per recommendations from Hunter lab outlined in bulletin, "Measuring Fabric Using the Lab Scan"). The first measurement is taken and then the swatch was turned 90° and the second measurement is taken. The 4 measurements are averaged and recorded. The Y color values are then used to



calculate the soil deposited, which is the color shift of the undyed clean fabrics.

**Rdci (Y scale) – Rdcf (Y scale) = Soil Redepleted**

Where:

Rdci = average reflectance of the two clean clothes before washing.

Rdcf = average reflectance of the two clean clothes after washing.

Results:

*Table I – Soil Redepleted for Purex Triple Action h-e Laundry Detergent LC#13-T0067, Dosage: 6.04 grams per liter.*

Swatches	Soil Redepleted for Ground in Clay
Cotton - Bleached Desized Cotton Print Cloth Style 400 lot#2026	2.67
Polyester - Texturized Dacron 56T Double knit Jersey Style 720 lot#4970	0.59

*Table II – Soil Redepleted for Purex Triple Action h-e Laundry Detergent LC#13-T0067 Dosage: 6.04 grams per liter.*

Swatches	Soil Redepleted For Dust Sebum
Cotton - Bleached Desized Cotton Print Cloth Style 400 lot#2026	1.23
Polyester - Texturized Dacron 56T Double knit Jersey Style 720 lot#4970	2.41

*Table III – Soil Redepleted for Liquid Laundry Detergent LC#15-T0732; Dosage: 3.85 grams per liter.*

Swatches	Soil Redepleted for Ground in Clay
Cotton - Bleached Desized Cotton Print Cloth Style 400 lot#2026	2.19
Polyester - Texturized Dacron 56T Double knit Jersey Style 720 lot#4970	1.88

*Table IV – Soil Redepleted for Liquid Laundry Detergent LC#15-T0732; Dosage: 3.85 grams per liter.*

Swatches	Soil Redepleted For Dust Sebum
Cotton - Bleached Desized Cotton Print Cloth Style 400 lot#2026	1.77
Polyester - Texturized Dacron 56T Double knit Jersey Style 720 lot#4970	0.83



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Conclusion: The Chem-Tech Liquid Laundry Detergent, at a lower dosage rate, is comparable in performance to the National Brand.



Tested by: \_\_\_\_\_  
Lab Supervisor



Approved by: \_\_\_\_\_  
Technical Manager

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