# CLEANING LABORATORY EVALUATION SUMMARY

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|---|---|
| SCL #: | 2015 |
| DateRun: | 06/17/2015 |
| Experimenters: | Loc Nguyen, George Liang, Russell Curtis, Luis Raudales, Michael McDermott |
| ClientType: | Cleaner Manufacturer |
| ProjectNumber: | Project #1 |
| Substrates: | Skin |
| PartType: | Coupon |
| Contaminants: | Dirt |
| Cleaning Methods: | Manual Wipe |
| Analytical Methods: | Tactile, Visual |
| Purpose: | To evaluate supplied products for performance following Green Seal GS 41 hand cleaning standard. |
| Experimental Procedure: | The testing conducted followed Green Seal's GS 41 standard, Performance testing Hand Cleaners and Hand Soaps Used for Industrial and Institutional Purposes. The product specific performance requirements stated:<br>Using a fixed, repeatable procedure, the product shall demonstrate efficacy against a nationally recognized conventional product showing equivalent or better performance.<br><br>The testing protocol shall include, at a minimum:<br>Cleaning ability, lathering/rinsing, and skin condition after use. A standard soil shall be used, and conclusions shall be derived from at least six separate samples. All results, a summary of conclusions and a description of how panelists are chosen shall be submitted.<br><br>To that end, the TURI Lab established a hand cleaning protocol. The TURI Lab Testing Procedure for Hand Soap Testing followed the procedures listed:<br>Conduct preliminary review of hand condition of subject to characterize skin condition as moist, normal, dry or very dry prior to cleaning.<br><br>The soil used consisted of 5 grams of Synthetic carpet soil AATCC Test Method 122, 20 ml tap water. The waterand soil were mixed together to make a paste. A quarter size amount of soil was applied to a subject's hand. Both hands were then rubbed together to distribute soil to both hands.<br><br>Using tap water hands were wetted and apply one to two pumps of hand soap were applied. Hands were rubbed together with soap and water for 20 seconds followed by rinsing hands in tap water for 20 seconds. Final step was to wipe or blot hands dry for 20 seconds.<br><br>During and after cleaning, observations were made for cleaning, lathering/rinsing and skin condition. Cleaning and lathering observations were made once and the skin condition was recorded at 1, 5, 20 and 60 minutes.<br><br>Observations were ranked using the following guidelines:<br><br>Observe cleanliness<br>Rank Cleanliness<br>1 No signs of soil<br>2 Only in fine lines of hand or Intermittent spots but not in fine lines<br>3 Intermittent spots and in fine lines<br>4 Multiple spots (connected spots)<br>5 Continually covered<br>Observe lathering/rinsing<br><br>Rank Lathering/Rinsing<br>1 Lots of lathering – easy rinsing<br>2 Some lathering – easy rinsing<br>3 Some lathering – hard rinsing<br>4 Little lathering – easy rinsing/ No lathering – easy rinsing<br>5 No lathering – hard rinsing<br>Observe skin condition after clean/rinse/dry at 1 minute, 5 minutes, 20 minutes and 60 minutes.<br>Rank Skin Condition Observation<br>1 Smooth and soft<br>2 Some dryness<br>3 Dry - Hands turning white<br>4 Skin stiffening<br>5 Very dry - Cracking of skin<br>Photographs of each subjects hands before soil, after soiling and after cleaning were taken to document cleaning results.<br>Subjects were selected on the basis of skin condition. The goal was to select skin types that were normal to dry so that the effect of the cleaners could be judged on at least two skin types. |
| Results: | Visual Test for SoftSoap Hand Soap Test |

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| Observation | Tester 1 | Tester 2 | Tester 3 | Tester 4 | Avg |
|---|---|---|---|---|---|
| Cleaniness 1-5 | 5 | 5 | 4 | 2 | 4 |
| Lathering/ Rinsing 1-5 | 3 | 3 | 3 | 1 | 2.5 |
| Skin Condition | | | | | |
| 1 Min | 3 | 2 | 3 | 2 | 2.5 |
| 5 Min | 2 | 2 | 3 | 2 | 2.25 |
| 20 Min | 2 | 2 | 3 | 1 | 2 |
| 60 Min | 2 | 1 | 2 | 1 | 1.5 |

| Observation | Tester 1 | Tester 2 | Tester 3 | Tester 4 | Avg |
|---|---|---|---|---|---|
| Cleaniness 1-5 | 4 | 2 | 2 | 3 | 2.75 |
| Lathering/ Rinsing 1-5 | 4 | 2 | 2 | 2 | 2.5 |
| Skin Condition | | | | | |
| 1 Min | 2 | 3 | 2 | 1 | 2 |
| 5 Min | 2 | 2 | 2 | 1 | 1.75 |
| 20 Min | 2 | 2 | 2 | 1 | 1.75 |
| 60 Min | 2 | 1 | 2 | 1 | 1.5 |

Visual Test for Lysol Hand Soap Test

| Observation | Tester 1 | Tester 2 | Tester 3 | Tester 4 | Avg |
|---|---|---|---|---|---|
| Cleaniness 1-5 | 4 | 3 | 4 | 4 | 3.75 |
| Lathering/ Rinsing 1-5 | 4 | 3 | 4 | 4 | 3.75 |
| Skin Condition | | | | | |
| 1 Min | 2 | 2 | 2 | 1 | 1.75 |
| 5 Min | 2 | 2 | 2 | 2 | 2 |
| 20 Min | 2 | 1 | 1 | 2 | 1.5 |
| 60 Min | 1 | 1 | 1 | 1 | 1 |

Visual Test for Lysol no touch Hand Soap Test

| Observation | Tester 1 | Tester 2 | Tester 3 | Tester 4 | Avg |
|---|---|---|---|---|---|
| Cleaniness 1-5 | 5 | 3 | 2 | 2 | 3 |
| Lathering/ Rinsing 1-5 | 5 | 2 | 2 | 2 | 2.75 |
| Skin Condition | | | | | |
| 1 Min | 3 | 3 | 1 | 2 | 2.25 |
| 5 Min | 3 | 2 | 1 | 1 | 1.75 |
| 20 Min | 4 | 1 | 1 | 1 | 1.75 |
| 60 Min | 4 | 1 | 1 | 1 | 1.75 |

Visual Test for BrandBuzz Hand Soap Test

| Observation | Tester 1 | Tester 2 | Tester 3 | Tester 4 | Avg |
|---|---|---|---|---|---|
| Cleaniness 1-5 | 3 | 1 | 4 | 1 | 2.25 |
| Lathering/ Rinsing 1-5 | 4 | 2 | 3 | 2 | 2.75 |
| Skin Condition | | | | | |
| 1 Min | 3 | 3 | 1 | 1 | 2 |
| 5 Min | 2 | 2 | 1 | 1 | 1.5 |

# CLEANING LABORATORY EVALUATION SUMMARY

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|---|---|---|---|---|---|
| 20 Min | 2 | 2 | 1 | 1 | 1.5 |
| 60 Min | 2 | 2 | 1 | 1 | 1.5 |

Summary:

| **Substrates:** | Skin |
|---|---|
| **Contaminants:** | Dirt |

| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
|---|---|---|---|---|---|
| Colgate-Palmolive Company | Softsoap soothing aloe vera | 100 | 0.00 | ☑ | |
| Fisher Scientific | Absolute Ethanol | 0 | 0.00 | ☐ | |
| Hartz | Hartz Litter Beads | 100 | 0.00 | ☐ | |
| Reckitt Benckiser | Lysol Soft on Skin Hand Soap | 100 | 0.00 | ☑ | |
| Reckitt Benckiser | Lysol No-Touch hand soap | 100 | 0.00 | ☑ | |
| Brand Buzz | RC14H26D-1A Hand Soap | 100 | 0.00 | ☑ | |

Conclusion:

Dial hand soap and BranBuzz hand soap both resulted in a relatively low level of cleaning compared to the SoftSoap hand soap. SoftSoap hand soap had the best cleanliness result and provided the best skin conditions.