

**SageWay Solutions, LLC**  
**Project 20053**  
**Daily Shower Cleaners**  
**% Soil Removal**  
**Soap Scum-ASTM D5343**

Living Clean  
Grove Collaborative  
Clorox w/Tilex  
Method

March 12, 2020

Mr. Gregory van Buskirk  
SageWay Solutions, LLC  
65 Panorama Ct  
Danville, CA 94506

Dear Gregory,

You sent us a sample of **Daily Shower Cleaner** identified as **Living Clean, Daily Shower Cleaner** for comparison against **Grove Collaborative, Clorox w/Tilex**, and **Method**. We tested the samples using ASTM D5343 soap scum. A summary of the testing is below.

**All samples are comparable in Soil Removal.**

Sample	ASTM D5343 Soap Scum	% of Best
	% Soil Removal	
Grove	83.9	Best
Living Clean	82.9	98.8%
Method	82.6	98.5%
Clorox w/Tilex	81.2	96.8%
Sig. Dif.	6.4	

Descriptions of the test method and the sample information are attached.

Sincerely,



Tod Losey  
Sterling Laboratories

## Sample Information

### Daily Shower Cleaners

1. **Living Clean**, Daily Shower Cleaner Formula - Free & Clear,  
Production Code: SWS-020720-DSC1, 7 February 2020,  
Sample For Sterling Laboratories,  
Received 2-13-20 from SageWay Solutions
2. **Method**, Daily Shower Spray, Eucalyptus Mint,  
Cleans Without Having To Rinse, With Plant-Based Cleaning Power,  
28 fl. oz. (828 mL) Trigger Spray Bottle  
Lot #: 2002398 09:57, UPC #: 8 1793901390 8  
Purchased 2-18-20 from Meijer, Toledo, OH
3. **Clorox Plus Tilex**, Daily Shower Cleaner, Just Spray & Walk Away,  
32 fl. oz. (946 mL) Trigger-Spray Bottle,  
Lot #: 5813GA1 A420030 20:00, UPC #: 0 4460001260 5,  
Purchased 2-18-20 from Meijer, Toledo, OH
4. **Grove Collaborative**, Shower Spray, Orange & Rosemary,  
2-Pack, 1 oz. Concentrates,  
Lot #: C039403 (on Tube Crimp), UPC #: 8 1997802243 9  
Received 2-7-20 from Grove Collaborative

**Photographs of Samples Tested**  
Daily Shower Cleaners



Living Clean



Grove Collaborative



Clorox w/ Tilex



Method

## **TEST METHOD**

### Daily Shower Cleaners ASTM D5343 Soap Scum

#### **Substrate:**

- White Ceramic Tiles. (4" x 4", Counterparts, Bright White, # L 100-4).

#### **Soiling the Substrate**

We soiled the ceramic tiles with soap scum per ASTM D-5343 and allowed them to cool overnight. The reflectance of each tile was measured before and after soiling using a Photovolt 577 Reflectometer with a Green Tristimulus filter.

#### **Sample Dilutions**

- Living Clean, Method & Clorox w/Tilex: Used as received.
- Grove: Diluted 1 oz. (1 Tube) into 15 oz. of Toledo tap water.

#### **Applying the Sample to the Soiled Tiles**

We applied two milliliters (2 mL) of sample onto a soiled tile. The sample was allowed to soak overnight. We then rinsed under the tap. Each tile was allowed to dry at room temperature, and then measured it again using the Photovolt Reflectometer. Each sample was evaluated using three (3) replicates. Soil Removal Calculations are defined below.

#### **Soil Removal Calculations**

On each test panel we measured the reflectance of the test area before and after soiling and after cleaning, calculated the percent soil removed from the formula:

$$\text{Soil Removal} = 100(C-S) / (O-S).$$

Where "O" is the reflectance of the unsoiled tile, "S" is the reflectance after soiling, and "C" is the reflectance after cleaning.

If the samples differ by less than 10% they are said to be comparable. We determined the least significant difference at the 95% confidence rate for the samples tested.