

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025
 DateRun: 06/26/2025
 Experimenters: Tatyanna Moreland Junior, Rachael Rososky
 ClientType: Community Group
 ProjectNumber: Project #2
 Substrates: Ceramics, Plastic, Stainless Steel
 PartType: Part
 Contaminants: SSL Soil 1 Bathroom Soap Scum
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric
 Purpose: To test the efficacy of Dr. Bronner's All-Purpose Castille Soap Dilution (aka BWG's Magic Soap) against Method Bathroom Cleaner

Experimental Procedure: Eighteen pre-weighed coupons, three per substrate per cleaner, were contaminated with 0.5 g of SSL Soil 1 Bathroom Soap Scum. Coupons were dried at room temperature (68°F) for 24 hours before their dirty weights were recorded. Three coupons of the same substrate were placed in a Single Line Washing Unit (SLW) with a Wypall X60 wipe attached to the cleaning sled. The wipe and coupons were sprayed three times with the cleaner and soaked for 30 seconds. The SLW was then run for 20 cleaning cycles (30 seconds of manual cleaning). Coupons dried overnight at room temperature before final weights were recorded.

Cleaner	Substrate	Coupon #	Initial wt of cont.	Final wt of cont.	%Cont Removed	Average % Removal	Average Cleaner %
Dr. Bronner's All Purpose Dilution	Ceramic	6	0.2293	0.0661	71.17	72.46	68.10
		17	0.2413	0.0224	90.72		
		51	0.2431	0.1082	55.49		
	Stainless Steel	1	0.2438	0.0832	65.87	63.74	
		36	0.2349	0.0873	62.83		
		10	0.2539	0.0952	62.50		
	Polycarbonate	2	0.2332	0.0745	68.05	61.26	
		5	0.2302	0.0780	66.12		
		22	0.2406	0.1212	49.63		
Method's Bathroom Cleaner	Ceramic	55	0.2421	0.0999	58.74	46.81	32.60
		111	0.2365	0.1368	42.16		
		2121	0.2732	0.1652	39.53		
	Stainless Steel	13	0.2424	0.1823	24.79	18.38	
		14	0.2343	0.2160	7.81		
		32	0.2408	0.1865	22.55		
	Polycarbonate	24	0.2496	0.1143	54.21	55.20	
		31	0.2109	0.0920	56.38		
		34	0.2352	0.1058	55.02		

Substrates:		Ceramics, Plastic, Stainless Steel			
Contaminants:		SSL Soil 1 Bathroom Soap Scum			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Method	Method Tub & Tile Bathroom Cleaner	RTU	84.40	<input type="checkbox"/>	
Dr. Bronner's	Dr. Bonner's 18-in-1 Hemp Pure Castille Soap	60 mL soap per 1 L of water	86.60	<input checked="" type="checkbox"/>	

Conclusion: Dr. Bronner's All-Purpose Castille Soap Dilution (aka BWG's Magic Soap) was more effective than Method Bathroom Cleaner on ceramic, plastic, and stainless steel.