CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2020

DateRun: 06/10/2020

Experimenters: Alicia McCarthy, Hayley Byra

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Ceramics

PartType: Part

Contaminants: Food

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate the stability and effectiveness of L'AVANT Collective Dish Soap against Dawn Dish Soap on the removal of Soil B from ceramic plates.

Experimental Procedure: Pre-weighed clean ceramic plates were soiled with six grams of 4009 Soil B (50% All Purpose Flour, 48% Crisco Shortening, and 2% Olive Oil) and air dried for 24 hours at room temperature (68˚F). After drying, each soiled ceramic plate were weighed to determine contaminated weights. Four millimeters of each dish soap were measured out and each were mixed with four liters of tap water heated to 120°F, which was recorded when poured sequentially into the washing basin. Twenty seconds after the reservoir was prepared, the manual cleaning method began. Each plate was washed at an angle, half submerged in the water, cleaning both the front and back sides of each plate with a sponge in a circular motion for 30 seconds. This process continued until half the surface of the wash solution showed a thin layer of foam. The plates were allowed to air dry after washing. Once air dried, each plate was weighed to determine clean weights for gravimetric analysis.

Results:

Cleaner	Initial wt of cont.	Final wt of cont.	%Cont Removed	Average % Removal
Dawn Dish Soap	6.0400	-0.0300	100.50	99.64
	6.0700	-0.0300	100.49	
	5.1500	-0.9300	118.06	
	5.9700	0.0400	99.33	
	6.0500	0.1000	98.35	
	6.0900	0.2600	95.73	
	6.1200	0.2300	96.24	
	6.0500	0.4800	92.07	
	6.0400	0.2400	96.03	
L'AVANT Collective Dish Soap	6.2300	-0.0600	100.96	96.91
	6.0900	-0.0300	100.49	
	6.2300	0.0400	99.36	
	6.0300	0.1800	97.01	
	6.0800	0.2900	95.23	
	6.2000	0.7200	88.39	

The comparative product had one outlier of soil removal, in excess of 118%. With no visual signs of destruction of the ceramic plate, the high removal rate may signify that the initial weight of the plate was not likely to be accurate. The removal of the cleaning percentage rate for the plate in question from the overall average resulted in a product average of 97.35. In comparison, the L'AVANT Collective Dish Soap was average was 96.91.

Summary:

Conclusion: L'AVANT Collective Dish Soap was effective in removing Soil B from ceramic plates, removing 96.91%. The comparative product , Dawn Dish Soap was 97.35% effective when eliminating the one plate with removal rate in question. L'avant would be considered comparable to the Dawn dish soap when using gravimetric soil removal rates.