CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2017

DateRun: 05/10/2017

Experimenters: George Liang, Vinh Tran

ClientType: Cleaner Manufacturer

ProjectNumber: Project #8

Substrates: Ceramics

PartType: Coupon

Contaminants: Food

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To evaluate supplied products for removal of DCC-10 soil from ceramic plates following ASTM International foam stability hand dishwashing detergents standard.

Experimental Procedure: The following experimental procedure is in accordance with the TURI cleaning standard operating procedure for foam stability testing (DCC-10).

Soiling Process:

A set of ceramic plates were contaminated with 2 grams of DCC-10 soil using a handheld swab onto the center of the plate's surfaces. DCC-10 consists of the following ingredients: Vegetable shortening 42.85%, egg powder 14.3%, tap water 42.85%. Using a glass rod, the DCC-10 soil was spread uniformly in the center of the plates.

Cleaning Process:

Before the cleaning process was initiated, a reservoir of 4000 mL water was prepared. The water in the reservoir was kept at 125 degrees Fahrenheit. Twenty seconds after the reservoir was prepared the cleaning process was initiated. Each dish was half submerged at an angular position and washed one at a time, both front and back. Each dish was washed with a dishcloth in a circular motion, for a total of thirty seconds each. The washing process for each dish was continued until half the surface of the wash solution was covered in a thin layer of foam.

Efficacy Rating Process:

The cleaning agent's efficacy was determined by counting the number of plates required to reduce the foam to less than half of the initial amount.

Results: The objective of the experiment is to compare the efficacy of the Vi-Jon Economy Pot & Pan with the comparative cleaner Brady Pot & Pan through visual efficacy evaluations.

Comparative Analysis

In general, in regard to removal of foam the Brady Pot and Pan had a slightly higher efficacy than the Vi-Jon Economy Pot and Pan, with the Brady Pot and Pan cleaning agent averaging 21 plates cleaned as opposed to 19 plates cleaned on average for the Vi-Jon Economy cleaning agent. Table pertaining to the temperature of the wash solution before the plates were submerged, the temperature of the wash solution after the plates were removed, the number of washed plates, and the average number of plates washed per cleaning agent.

Cleaner	Temp In (F) Temp Out (F)	Washed Plates	Avg.	Washed Plates
Brady Pot & Pan				
	128	75	25	21
	125	95	21	
	126	98	18	
Vi-Jon Economy Pot & Pan				
	127	94	18	19
	125	100	20	
	128	100	20	

Summary:

Substrates:	Ceramics				
Contaminants:	Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**

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Brady Industries	Brady Pot and Pan	0.78	0.00	☑	21 Plates
Vi-Jon	Vi-Jon Economy Pot and Pan	0.78	0.00	☑	19 plates

Conclusion: The supplied products from Vi-Jon compared equally with the Brady brand products.