CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2017
DateRun:	05/07/2017
Experimenters:	George Liang
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #8
Substrates:	Aluminum, Stainless Steel
PartType:	Coupon
Contaminants:	Greases, Oil, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied product for DCC-17 removal from stainless steel and aluminum surfaces following TURI's cleaning method.

Experimental Procedure:

The following experimental procedure is in accordance with TURI's cleaning standard operating procedure for kitchen soil removal.

Soiling Process:

A set of pre-weighed stainless steel and aluminum coupons were contaminated with 0.5 grams of DCC-17 soil using a handheld swab onto the center of the coupon's surfaces. DCC-17 was made with the following ingredients: Vegetable Shortening 33%, Lard 33%, Vegetable Oil 33%, and Carbon lampblack 1%. After all the stainless steel and aluminum coupons were contaminated with DCC-17 soil, the coupons were allowed to sit overnight then re-weighed to determine the amount of contaminant added.

Cleaning Process:
Three soiled substrates were placed into a Gardner Straight Line Washability unit. Two Wypall X60 reinforced wipe was attached to the cleaning sled and soaked with 1 spray of cleaning solutions. The cleaning solutions were diluted to the desired concentrations specified by the vendor and heated to a temperature of 110 oF. Each substrate was sprayed 1 time with the same cleaning solution. The solution was allowed to penetrate for 30 seconds and followed by cleaning in the SLW unit for 20 cycles (~33 seconds).

Efficacy Rating Process:

The substrates were left to dry at room temperature for an hour before weighing to determine the amount of contaminant removed.

Results:

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

Comparative Analysis:
Vi-Jon Economy Pot & Pan and Brady Pot & Pa were similar in performance levels, with respective efficacy ratings of 79.04% and 77.51%. On aluminum coupons, Vi-Jon Economy Pot & Pan comparable to Brady Pot & Pan; with a respective efficacy of 86.53% as compared to 90.05%. Table pertaining to the amount of contaminant added and removed using a gravimetric scale by its respective cleaning agent to measure the efficacy of the cleaners.

Cleaner	Initial wt (g)	Final wt (g)	% Removed
Brady Pot & Pan Stainless Steel			
	0.4724	0.1749	62.98
	0.4875	0.0786	83.88
	0.4938	0.0708	85.66
Brady Pot & Pan Aluminum			
	0.4905	0.0442	90.99
	0.4923	0.0568	88.46
	0.4909	0.0457	90.69
Vi-Jon Economy Pot & Pan Stainless Steel			
	0.4869	0.113	76.79
	0.5017	0.1429	71.52
	0.47	0.0526	88.81

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Vi-Jon Economy Pot & Pan Aluminum			
	0.4918	0.0564	88.53
	0.4885	0.0677	86.14
	0.497	0.075	84.91

Summary:

Substrates:	Aluminum, Stainless Steel				
Contaminants:	Greases, Oil, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brady Industries	Brady Pot and Pan	0.78	83.78	☑	
Vi-Jon	Vi-Jon Economy Pot and Pan	0.78	82.79	☑	

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