CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 12/21/2010

Experimenters: Kathleen Tenaglia

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel, Steel

PartType: Coupon

Contaminants: Carbon Deposits, Greases, Oil, Food

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To compare TMI Kitchen cleaner to alternative cleaners for kitchen soil cleaning.

Experimental Procedure:

Soil Preparation
A mixture of three cooking oils/greases was made. A melt blend of 33% vegetable shortening, 33% lard, 33% vegetable oil and 1% carbon lampblack was made up fresh for the testing. Care was taken in the application of the soil onto the coupons so that light and heavy areas were avoided. Allow the soiled tiles to dry for 24 hours at room temperature.

Four sets of two coupons (Stainless Steel and Painted Steel) were initially weighed and recorded, then covered with DCC17 (Grease) using a hand held swab.

Cleaning Test
Place a soiled tile in the tray of the abrasion tester such that the direction of the soiling is perpendicular to the direction of the wiping media. Products were applied to the coated surfaces using a 3-5 sprays from manual spray pump and 4-7 sprays onto the reinforced Wypal X60 paper towel attached to the cleaning instrument. The cleaning was performed using Gardner Straightline washability unit and conducted for the prescribed 5 cycles (10 strokes). Following the initial cycle, if there was no discernable difference between the products and an additional 15 cycles were run.

Products were selected based on kitchen cleaning needs and health and safety options.

Results: All four products were successful in removing the kitchen soil using manual wiping application. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed	Average
TMI Kitchen Cleaner (Stainless Steel)				
	0.3727	0.0135	96.38	95.44
	0.6116	0.0246	95.98	
	0.3248	0.0196	93.97	
TMI Kitchen Cleaner (Painted Steel)				
	0.6018	0.0053	99.12	95.59
	0.8641	0.0172	98.01	
	0.4629	0.0480	89.63	
Industrial Cleaner and Degreaser (Stainless Steel)				
	1.9145	0.0561	97.07	95.86
	0.6253	0.0132	97.89	
	0.6249	0.0461	92.62	
Industrial Cleaner and Degreaser (Painted Steel)				
	0.5589	0.0041	99.27	97.34
	0.7796	0.0285	96.34	
	0.6590	0.0236	96.42	
The Natural Heavy Duty Degreaser (Stainless Steel)				
	1.2148	0.0087	99.28	94.52
	0.7346	0.0409	94.43	
	0.8098	0.0822	89.85	
The Natural Heavy Duty Degreaser (Painted Steel)				
	1.0162	0.0615	93.95	95.76
	0.8688	0.0341	96.08	
	0.9299	0.0256	97.25	
The Natural Spray and Wipe (Stainless Steel)				

CLEANING LABORATORY EVALUATION SUMMARY

	0.5188	0.0048	99.07	99.48
	0.8586	0.0007	99.92	
	0.3919	0.0022	99.44	
The Natural Spray and Wipe (Painted Steel)				
	0.9911	0.0180	98.18	98.32
	0.6903	0.0102	98.52	
	0.6904	0.0121	98.25	

Summary:

Substrates:	Stainless Steel, Steel
Contaminants:	Carbon Deposits, Greases, Oil, Food

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
The Clean Environment Co	Natural N-14 Heavy Duty Degreaser and Cleaner	2	95.14	☑	
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	100	96.60	☑	

Conclusion:

All four products worked against DCC17 Grease. The most effective, according to this particular run, was The Natural Spray and Wipe, followed by the Industrial Cleaner and Degreaser.