CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2010
DateRun:	11/18/2010
Experimenters:	Junhee Cho, Timothy Weil, Kathleen Tenaglia
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Hucker's Soil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	To test the efficiency of supplied products for pot and pan cleaning.
Experimental Procedure:	Initially pre-washed stainless steel coupons were covered with Hucker soil. The coupons were then heated for two hours at 100°F to represent aging. One group of coupons was used once they cooled to room temperature and the other set was allowed to sit for three days. For each batch of coupons half of the coupons were immersed in a 0.13% of each of the three cleaners for 10 minutes. All of the coupons were then cleaned using the Gardner Straight-line washability unit, weighed, and the results recorded.
Results:	The first group of coupons used the same day as the heat aging resulted in a lower cleaning effectiveness than those cleaned after three days of sitting at room temperature. For the first group (used same day) the Pot and Pan cleaner was better than the Blue Ocean and Dawn. For the coupons aged 3 days, the Blue Ocean was the top performing product followed by Pot and Pan and Dawn. In both groups of coupons, the extended soak time improved cleaning efficiency.

Cleaned Same Day

Cleaner	Initial	Dirty	Final	Ave
Alpha Chemical Yes Pre-Soak	1.6307	0.7342	54.98	65.73
	0.2667	0.0603	77.39	
	0.1615	0.0568	64.83	
Alpha Chemical No Pre-Soak	0.2413	0.1359	43.68	40.02
	0.2263	0.0869	61.60	
	0.8519	0.7261	14.77	
Dawn Yes Pre-Soak	1.5646	0.9157	41.47	47.72
	1.2171	0.6418	47.27	
	0.8815	0.4017	54.43	
Dawn No Pre-Soak	1.1047	0.7090	35.82	26.80
	0.8914	0.7480	16.09	
	0.7334	0.5244	28.50	
Blue Ocean Yes Pre- Soak	1.0411	0.6541	37.17	52.07
	0.6173	0.2437	60.52	
	0.4492	0.1864	58.50	
Blue Ocean No Pre-Soak	2.0583	1.7522	14.87	14.20
	1.7330	1.4957	13.69	
	0.8950	0.7694	14.03	

Cleaned 3 days later

Cleaner	Initial	Dirty	Final	Ave
Alpha Chemical Yes Pre-Soak	0.3877	0.0331	91.46	84.74
	0.5344	0.0437	91.82	
	0.9772	0.2840	70.94	
Alpha Chemical No Pre-Soak	0.9750	0.5610	42.46	67.09
	0.2046	0.0176	91.40	
	0.1479	0.0482	67.41	

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Dawn Yes Pre-Soak	1.0819	0.0171	98.42	82.64
	0.4082	0.0168	95.88	
	1.0169	0.4718	53.60	
Dawn No Pre-Soak	0.4296	0.2400	44.13	65.84
	0.5299	0.2217	58.16	
	0.2570	0.0123	95.21	
Blue Ocean Yes Pre-Soak	0.2448	0.0036	98.53	98.50
	0.1429	0.0024	98.32	
	0.2514	0.0034	98.65	
Blue Ocean No Pre-Soak	0.5195	0.0159	96.94	96.19
	0.3555	0.0119	96.65	
	0.1731	0.0087	94.97	

Summary:

Substrates:	Stainless Steel				
Contaminants:	Hucker's Soil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Procter & Gamble	Dawn Dish Detergent	0.13	82.64	☐	

Conclusion: The supplied products performed as well as or better than the industry supplied product for pot and pan cleaning.