CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 12/01/2004

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Oil, Starch

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate products at a longer cleaning time.

Experimental Procedure: Five products were selected based on test results from the previous trial. Each product was diluted with DI water to vendor suggested concentration. The products were then heated to 130 F on a hot plate.

The pre-contaminated stainless steel coupons were cleaned three coupons per product for another 15 minutes (30 total) using stir bar agitation. Cleaning was followed by a 15 second rinse in a tap water bath at 120 F and air blow off for 30 seconds at room temperature. Once dry, coupons were weighed a third time and efficiencies were calculated for each product tested.

Results: Three of the products removed over 70% of the oil/starch mix after 30 minutes of total cleaning time. The table below lists the amount of soil added, the amount remaining and the percent removed for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
SC Oven & Grill	0.0383	0.0427	-11.49
	0.0618	0.0340	44.98
	0.1409	0.0457	67.57
VPW SC 1000	0.0799	0.0303	62.08
	0.1641	0.0317	80.68
	0.0563	0.0412	26.82
Ecco Commercial	0.2380	0.1195	49.79
	0.1275	0.0086	93.25
	0.0943	0.0188	80.06
Organic Cleaner/ Degreaser	0.0477	0.0065	86.37
	0.1354	0.0154	88.63
	0.0785	0.0031	96.05
Super H2O2	0.1261	0.0199	84.22
	0.0841	0.0193	77.05
	0.1771	0.0522	70.53

Summary:

Substrates:	Stainless Steel
Contaminants:	Oil, Starch

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Gemtek Products	Safe Care (SC) Oven & Grill Cleaner	10	33.69	☐	
Orison Marketing	VPW SC 1000	20	56.53	☐	
1st Envirosafety Inc. - No Longer Exists	Ecco Commercial Cleaner - For Comparison Purposes Only	25	74.37	☑	
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	25	90.35	☑	
Cleanline Products	H2O2 Super Citrus Concentrate	10	77.27	☑	

Conclusion: The top four cleaners were selected to be evaluated for higher cleaning temperatures for 15 and 30 minute cleaning.