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 alternatives for 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 10 minutes (15 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: All five products improved with the additional 10 minutes. The Organic Cleaner/Degreaser removed over 80% of the oil/starch mix. 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	0.0469	-22.45
	0.0618	0.0370	40.13
	0.1409	0.0586	58.41
VPW SC 1000	0.0799	0.0368	53.94
	0.1641	0.0863	47.41
	0.0563	0.0540	4.09
Ecco Commercial	0.2380	0.1603	32.65
	0.1275	0.0126	90.12
	0.0943	0.0232	75.40
Organic Cleaner/Degreaser	0.0477	0.0099	79.25
	0.1354	0.0292	78.43
	0.0785	0.0079	89.94
Super H2O2	0.1261	0.0243	80.73
	0.0841	0.0236	71.94
	0.1771	0.0921	48.00

Summary:

Substrates:	Stainless Steel
Contaminants:	Oil, Starch

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Gemtek Products	Safe Care (SC) Oven & Grill Cleaner	10	25.36	☐	
Orison Marketing	VPW SC 1000	20	35.15	☐	
1st Envirosafety Inc. - No Longer Exists	Ecco Commercial Cleaner - For Comparison Purposes Only	25	66.05	☑	
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	25	82.54	☑	
Cleanline Products	H2O2 Super Citrus Concentrate	10	66.89	☑	

Conclusion: All five products will be cleaned for an additional 15 minutes (30 minutes total). All other conditions will be kept the same.