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 an elevated temperature and longer cleaning time.

Experimental Procedure: The four products from the previous trial were diluted with DI water to vendor suggested concentration. The products were then heated to 160 F on a hot plate.

The pre-contaminated stainless steel coupons were cleaned three coupons per product for another 15 minutes (30 minutes 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 four products removed over 75% of the oil/starch mix after 30 minutes of cleaning at 160. Two of the products removed over 90%.he 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
VPW SC 1000	0.1596	0.0380	76.19
	0.0611	0.0226	63.01
	0.1829	0.0216	88.19
Ecco Commercial	0.0793	0.0098	87.64
	0.0834	0.0054	93.53
	0.0866	0.0041	95.27
Organic Cleaner/ Degreaser	0.0945	0.0036	96.19
	0.1665	0.0049	97.06
	0.0547	0.0035	93.60
Super H2O2	0.0716	0.0098	86.31
	0.1511	0.0102	93.25
	0.0794	0.0115	85.52

Summary:

Substrates:	Stainless Steel
Contaminants:	Oil, Starch

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Orison Marketing	VPW SC 1000	20	75.80	☑	
1st Envirosafety Inc. - No Longer Exists	Ecco Commercial Cleaner - For Comparison Purposes Only	25	92.14	☑	
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	25	95.36	☑	
Cleanline Products	H2O2 Super Citrus Concentrate	10	88.36	☑	

Conclusion: The increased time and temperature resulted in three products removing over 88% of the soil. The next phase of testing will be to compare these product directly to the current cleaner.