CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 12/08/2004

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 client's current cleaner under laboratory conditions.

Experimental Procedure: The product was diluted with DI water to client used concentration. The product was then heated to 130 F on a hot plate.

Three preweighed stainless steel coupons were coated with the supplied cotton seed oil/starch mix and allowed to sit for 24 hours. Coupons were then weighed a second time to determine the amount of soil that was added. Three coupons were cleaned in each product for five minutes 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: The Liquid Chembrite removed less oil under the laboratory setting then all but one of the alternative products tested. The table below lists the amount of soil added, the amount remaining and the percent removed for each coupon cleaned. The average efficiencies for the alternatives are also included.

Cleaner	Initial wt	Final wt	% Removed
Liquid Chembrite	0.1845	0.0496	73.12
	0.3053	0.0226	92.60
	0.4742	0.0179	96.23

Ave Efficiency from Trial 1

Product	Ave Efficiency from Trial 1
H2Orange2	74.31
SC Oven & Grill	93.73
VPW SC 1000	96.98
Ecco Commercial	98.08
Organic Cleaner/ Degreaser	96.13
Super H2O2	96.18

Summary:

Substrates:	Stainless Steel
Contaminants:	Oil, Starch

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Rochester Midland Corporation	Liquid Chembrite	3	87.31	☑	

Conclusion: The supplied product will also be evaluated on coupons that have been contaminated for one week at the client facility.