CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 04/16/2009

Experimenters: Smith Gadd

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Calcium/lime, Food

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: To evaluate potential alternatives for dairy equipment using manual cleaning.

Experimental Procedure: Five products were selected based on past testing results matching client supplied information. All products were used at full strength in 400 ml beakers and heated to 120 F on a hot plate.

Peweighed stainless coupons were coated with the whole sweet milk contaminant using a squeeze bulb. The contaminant covered coupons were put in an oven at 130F and dried for 15 minutes. Once dry, the coupons were weighed a second time to determine the amount of milk applied.

Three coupons were sprayed with cleaning products and then cleaned with manual wiping. Rinsing was not needed and coupons were air dried. Final weights were recorded and efficiencies were calculated for each coupon cleaned.

Results:

Cleaner	Initial wt	Final wt	% Removed
LF 2100	1.2488	0.1054	91.56
	1.0350	0.0735	92.90
	1.9015	0.0758	96.01
Amberclean L12	1.5568	0.0878	94.36
	1.1759	0.0337	97.13
	1.1170	0.0605	94.58
Simple Green D	1.5266	0.0442	97.10
	0.9132	0.0163	98.22
	0.7400	0.0189	97.45
Soysolv II Plus	1.0213	0.2122	79.22
	1.4441	0.2962	79.49
	1.0613	0.2120	80.02
DFC 5	1.5232	0.0065	99.57
	1.3616	0.0265	98.05
	1.3078	0.0102	99.22

Summary:

Substrates:	Stainless Steel
Contaminants:	Calcium/lime, Food

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
International Products Corporation	LF 2100 (Liquid Foam Cleaner)	100	93.49	☑	
Enviro-One	Multi Use Green Conc.	100	95.36	☑	
Simple Green	Simple Green D	100	97.59	☑	
Soysolv Industrial Products	Soysolv II sovent Plus	100	79.58	☐	
Cogent Environmental Solutions	DFC 5	100	98.95	☑	

Conclusion: Four of the five removed over 90% of the sweet milk from the stainless steel coupons using manual wiping. The top performers will be tested on the equipment at the facility.