

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009
 DateRun: 04/10/2009
 Experimenters: Junhee Cho, 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 continue testing alternative cleaners for dairy processing equipment

Experimental Procedure: Five products were selected based on past testing results matching client supplied information. Three products were used at full strength and two were diluted to 5% using DI water 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
SC 2000 All Purpose	0.1565	0.0115	92.65
	0.2435	0.0829	65.95
	0.0627	0.0043	93.14
Bean-e-doo	0.1432	0.0922	35.61
	0.0453	0.0267	41.06
	0.1304	0.0871	33.21
Soy Gold 1000	0.1865	0.1555	16.62
	0.2390	0.2016	15.65
	0.1861	0.1455	21.82
Polyspray Jet 790 XS	0.2466	0.0247	89.98
	0.0757	0.0088	88.38
	0.1863	0.0023	98.77
Sea Wash 77	0.1160	-0.0001	100.09
	0.1085	0.0069	93.64
	0.1174	0.0024	97.96

Summary:

Substrates:		Stainless Steel			
Contaminants:		Calcium/lime, Food			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Gemtek Products	SC 2000 All Purpose	100	83.92	<input type="checkbox"/>	
Franmar Chemical	Bean-e-doo (Parts Washer Solvent)	100	36.63	<input type="checkbox"/>	
AG Environmental Products	Soy Gold 2000	100	18.03	<input type="checkbox"/>	
US Polychem Corporation	Polyspray Jet 790 XS	5	92.37	<input checked="" type="checkbox"/>	
Warren Chemical Company	Sea Wash 77	5	97.23	<input checked="" type="checkbox"/>	

Conclusion:

The two diluted product removed more than 90% of the whole sweet milk using manual wiping.