CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 11/21/2025

Experimenters: Amelia Wagner

ClientType:

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Food

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To test the efficacy of safer alternatives within the cleaning process for the Kettles.

Experimental Procedure: Three stainless steel coupons were assigned to each cleaner being tested. The coupons had their initial weights recorded. The coupons were then soiled with Kettle liquid by spreading 2ml of the liquid on the bottom third of each coupon using a pipette. The coupons were then baked in the oven for 1 hours at 212F After the first hour, the oven was turned off while the coupons remained inside while the temperature decreased over the course of another hour. This was to simulate the maximum temperature reached during the 2 hour kettle process. After the coupons were removed from the oven, they were weighed again and had their dirty weights recorded. The coupons were then subjected to 20 mins of immersion in their respective cleaners with a stir bar set to 1,000 rpm to simulate agitation caused by CIP balls within the process. After cleaning, each coupon was rinsed under a stream of tap water for 10 seconds to remove any potential residue from the cleaners. After rinsing, the coupons were left to fully air dry before having their clean weights recorded.

Tested Cleaners:

A. Surface Cleanse 930 2% (Heated 130F)

B. EcoSafeway High pH Cleaner 5% (Unheated)

C. BevSafe CR 4.5% (Heated 120F)

Results:

Cleaner	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG
Surface Cleanse 930 2% (130F)	0.2848	0.0008	99.72	99.78
	0.3643	0.0012	99.67	
	0.3581	0.0002	99.94	
EcoSafeway High pH Cleaner 10% (unheated)	0.3409	0.0017	99.50	94.49
	0.4174	0.0003	99.93	
	0.5142	0.0820	84.05	
BevSafe CR 4.5% (120F)	0.4547	0.0003	99.93	99.96
	0.4430	0.0003	99.93	
	0.4984	0.0000	100.00	

Summary:

Substrates:	Stainless Steel				
Contaminants:	Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
International Products Corporation	Surface Cleanse Concentrated Neutral 930	2%	99.78	☑	130F
Eco Safeway	Eco Safeway High pH Cleaner	10%	94.49	☑	unheated
Environmental Manufacturing Solutions, LLC	BevSafe CR (Beverage Line & Tank Cleaner)	4.5%	99.96	☑	120F

Conclusion: All three cleaners were highly effective in removing the kettle liquid from stainless steel. The Eco Safeway High pH Cleaner seemed to struggle a little bit with some of the larger suspended solids within the kettle liquid, but was still effective.