CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 11/03/2025

Experimenters: Amelia Wagner

ClientType:

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Food

Cleaning Methods:

Analytical Methods: Gravimetric

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

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 runoff from the Mash Tun by spreading the runoff liquid on the bottom third of each coupon with a swab. The coupons were then baked in the oven for 2 hours at 170F to simulate the Mash in brewing 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 300 rpm. 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)	0.0080	0.0014	82.50	87.58
	0.0068	0.0004	94.12	
	0.0036	0.0005	86.11	
EcoSafeway High pH Cleaner 5% (unheated)	0.0082	0.0015	81.71	78.25
	0.0088	0.0018	79.55	
	0.0132	0.0035	73.48	
Bevsafe CR 4.5% (120F)	0.0066	0.0004	93.94	81.75
	0.0078	0.0019	75.64	
	0.0111	0.0027	75.68	

Summary:

Substrates:	Stainless Steel				
Contaminants:	Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
International Products Corporation	Surface Cleanse Concentrated Neutral 930	2%	87.58	☑	130F
Eco Safeway	Eco Safeway High pH Cleaner	5%	78.25	☑	ambient
Environmental Manufacturing Solutions, LLC	BevSafe CR (Beverage Line & Tank Cleaner)	4.5%	81.75	☑	120F

Conclusion: Surface Cleanse 930 showed the best performance and the most consistency of the three cleaners tested. The EcoSafeway High pH Cleaner had the lowest performance of the three cleaners. Each efficacy percentage is expected to increase with the agitation of the CIP balls from the onsite cleaning equipment that the lab lacks.

Testing needs to be redone with the measurement of soil on each coupon being a standardized amount to hopefully avoid the outliers present in this test.