CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 09/17/2025

Experimenters: Amelia Wagner

ClientType:

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Food

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: Continued testing to test the efficacy of the Eco Safeway High pH cleaner and Eco Safeway Descaler at a lower concentration.

Experimental Procedure: Stainless steel coupons were chosen and had their initial weights recorded before beginning the 'brewing' process. To begin the 'brewing process' a slurry of 1.5 lbs of dry malt extract and warm water was made and added to 2 gallons of boiling water in the brewing pot. An entire packet of hops was then added to the brewing pot and continued to boil for ~1 hour until wort was created. The wort was allowed to cool to room temperature before transferring it into the plastic fermentation bucket. 6-7 grams of dry yeast was rehydrated with a small amount of warm water, and was left to rest for 5 minutes. The dry yeast mixture was then added into the fermentation bucket (without stirring). The coupons were hung in the fermentation bucket with fishing line so that the bottom of each coupon sat just above the wort level. The fermentation bucket was covered and left to ferment for 72 hours, checking for yeast activity every day. Once the coupons were removed, they were baked in the oven at 250F to fully solidify the yeast and hops soil to the surface. At this point, the dirty weights of the coupons were then recorded.

To clean, the coupons were subjected to 20 minutes of immersion in their respective cleaners with a stir bar set to 300rpm. After cleaning, each coupon was rinsed with tap water for 10 seconds. After allowing the coupons to air dry, the clean weights were recorded.

Results:

Cleaner	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG
Eco Safeway High pH Cleaner 5%	0.0211	0.0022	89.57	90.68
	0.0157	0.0014	91.08	
	0.0116	0.0010	91.38	
Eco Safeway Descaler 5%	0.0132	0.0015	88.64	87.34
	0.0125	0.0023	81.60	
	0.0158	0.0013	91.77	

*From previous testing:

- High pH cleaner 10% = 89.41% removal
- Descaler 10% = 92.50% removal

Summary:

Substrates:	Stainless Steel				
Contaminants:	Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Eco Safeway	Eco Safeway High pH Cleaner	5%	90.68	☑	
Eco Safeway	Eco Safeway Descaler60	5%	87.34	☑	

Conclusion: Both products were effective in removing organic brewing soil from stainless steel coupons at a 5% concentration. There was no noticeable reduction in efficacy of the high pH cleaner when comparing the 10% concentration to the 5% concentration. A slight reduction in efficacy of the Descaler was observed between the 10% concentration previously tested and the 5% concentration. Even with this reduction, the Descaler is still considered to be an effective product.