

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025
 DateRun: 05/12/2025
 Experimenters: Amelia Wagner
 ClientType: Lab
 ProjectNumber: Project #13
 Substrates: Stainless Steel
 PartType: Coupon
 Contaminants: Food
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric
 Purpose: To test if the addition of a defoaming agent (Ethox L-61) will have any effect on the performance of the Virdivis FB1000

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 10 minutes of immersion in their respective cleaners at 120F 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
Virdivis	0.0204	0.0020	90.20	87.95
	0.0204	0.0032	84.31	
	0.0291	0.0031	89.35	
Virdivis With Defoamer	0.0357	0.0039	89.08	87.37
	0.2356	0.0197	91.64	
	0.0215	0.0040	81.40	

Summary:

Substrates:	Stainless Steel				
Contaminants:	Food				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Innovative Chemical Technologies, Inc.	Virdivis FB1000 (ICT 1648L)	20%	87.95	<input checked="" type="checkbox"/>	
Innovative Chemical Technologies, Inc.	Virdivis FB1000 (ICT 1648L)	20%	87.37	<input checked="" type="checkbox"/>	2.5% of defoaming agent added (Ethox L-61)

Conclusion: The defoaming agent does not seem to have any impact on the efficacy of the Virdivis FB1000.