CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2024
DateRun:	03/06/2024
Experimenters:	Amelia Wagner
ClientType:	Food Manufacturer
ProjectNumber:	Project #2
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Food
Cleaning Methods:	Ultrasonics
Analytical Methods:	Gravimetric
Purpose:	To compare the efficacy of Enzo NRF enzyme cleaner at two different temperatures (90F vs 130F)
Experimental Procedure:	Six stainless steel coupons were used, three to be cleaned at 90 F and three to be cleaned at 130 F. The initial weights of each coupon were taken. The coupons were then soiled with Cedar's Chocolate Hommus by wiping a thin layer, but leaving some chunky spots, on the bottom half of the substrate. A heat gun was applied to each coupon at its highest temperature for 2 mins each to mimic the pasteurization process that happens within the mixing tanks, allowing the soil to better adhere to the coupons. After the coupons cooled, their dirty weights were taken. The coupons were then subjected to 10 minutes of heated ultrasonics (three at 90 F and three at 130F) using the Enzo NRF enzymatic cleaner at a 2% dilution. The coupons were then removed and allowed to air dry before the clean weights were taken.

Results:

Cleaner	Temp	Initial wt of cont.	Final wt of cont.	%Cont Removed	%AVG
Enzo NRF 2%	90 F	0.0664	0.0000	100.00	99.77
		0.0295	0.0002	99.32	
		0.0498	0.0000	100.00	
	130 F	0.0301	0.0002	99.34	99.36
		0.0272	0.0003	98.90	
		0.0627	0.0001	99.84	

Summary:

Conclusion: The Enzo NRF Enzymatic Cleaner at 2% dilution had effectively the same efficacy at both 90 F and 130 F.