CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2023

DateRun: 12/13/2023

Experimenters: Alexander Symko, Amelia Wagner, Siddhant Trivedi

ClientType: Lab

ProjectNumber: Project #6

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids, Oil

Cleaning Methods: Vacuum Cycle Nucleation

Analytical Methods: Gravimetric

Purpose: To determine the efficacy of aqueous cleaners compared to water utilizing VCN equipment.

Experimental Procedure: Three pre weighed stainless steel parts were used as coupons. The coupons were soiled by swabbing the bottom third of the coupons with water Strawmann Cutting Oil. The dirty weights of the coupons were then recorded. The coupons were then subjected to a one-minute heated cycle at 140 degrees F in the VCN using water, LF 2100 1%, and Alcojet 1%. The coupons were then removed and left to air dry overnight. The next day the clean weights of the coupons were recorded.

Results:

Cleaner	Initial wt of cont.	Final wt of cont.	%Cont Removed
water	0.3418	0.0512	85.02
LF 2100 1%	0.2308	0.0261	88.69
Alcojet 1%	0.0355	0.0060	83.10

Summary:

Substrates:	Stainless Steel
Contaminants:	Cutting/Tapping Fluids, Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Water	Water	100%	85.02	☑	
International Products Corporation	LF 2100 (Liquid Foam Cleaner)	1%	88.69	☑	
Alconox Inc	Alcojet	1%	83.10	☑	

Conclusion: All cleaners were effective in removing the Strawmann Cutting Oil from intricate stainless steel parts. LF 2100 1% was the most effective, while the Alcojet 1% was the least effective.