CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2020

DateRun: 02/18/2020

Experimenters:

ClientType: Metal Finishing

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants:

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: To determine if the aqueous cleaners are stripping the steel coupons provided by the company.

Experimental Procedure: Three sets of three steel coupons were weighed and immersed into three distinct beakers containing Aquavantage 1400 GD, Liquinox, and SC-1000 respectively. Heated ultrasonics was conducted at 122-125°F for 15 minutes. Coupons were submerged in three distinct beakers containing deionized water as a rinse step for 5 minutes. Coupons were dried with an air gun for 10 minutes. Effectiveness of cleaning was observed gravimetrically after the drying step.

Results: After 15 minutes of heated ultrasonics and subsequent post-treatment, coupons treated with Aquavantage 1400 GD and Liquinox lost a thousandth of a gram, while coupons cleaned with SC-1000 lost a hundredth of a gram.

Summary:

Substrates:	Steel				
Contaminants:					
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Aquavantage 1400	5%	0.00	☑	
Alconox Inc	Liquinox	1%	0.00	☑	
Gemtek Products	SC 1000 Aqueous Cleaner Concentrate	20%	0.00	☑	

Conclusion: Based on gravimetric analysis, Liquinox on average had the least amount of weight lost for the steel coupons. Coupons cleaned with both Liquniox and Aquavantage 1400 GD lost a thousandth of a gram. Coupons cleaned with SC-1000 lost a hundredth of a gram. The next step would be to continue testing with the vanishing oil contaminant provided by the company.