CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2016

DateRun: 04/11/2016

Experimenters: Vinh Tran

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To eliminate the use of N-Propyl Bromide in cleaning operations

Experimental Procedure: Stainless steel coupons were weighed to determine the initial weights. The bottom third of the coupons were soiled with Sonnen B-200L oil using a swab. Three coupons were immersed at room temperature in the Fluosolv CX, the other remaining coupons were immersed at room temperature DuPont Vertrel SION. Each set of coupons were cleaned for five minutes each. Once the coupons were removed from the cleaner, the coupons were hung to air dry fifteen minutes. The coupons were reweighed, and percentage calculations were completed.

Results: The Fluosolv CX was inefficient at removing the Sonnen B-200L oil from the stainless-steel coupons, with an average percentage removal of 61.48%. However, the DuPont Vertrel SION was very efficient at removing the Sonnen B-200L oil, its average removal rate was 98.86%.

Cleaner	Initial wt of cont.	Final wt of cont.	%Cont Removed
Fluosolv CX	0.0100	0.0039	61.00
	0.0142	0.0047	66.90
	0.0122	0.0053	56.55
Vertrel Sion	0.0171	0.0000	97.08
	0.0198	0.0001	99.49
	0.0081	0.0000	100.00

Summary:

Substrates:	Stainless Steel				
Contaminants:	Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
NuGeneration Technologies, LLC	FluoSolv CX	100	61.48	☐	
DuPont	Vertrel Sion	100	98.86	☑	

Conclusion: The Fluosolv CX was inefficient at removing the Sonnen B-200L oil from the stainless-steel coupons, with an average percentage removal of 61.48%. However, the DuPont Vertrel SION was very efficient at removing the Sonnen B-200L oil, its average removal rate was 107.08%.