

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	<input type="checkbox"/>	
DuPont		Vertrel Sion	100	98.86	<input checked="" type="checkbox"/>	

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%.