CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/11/2004

Experimenters: Jason Marshall

ClientType: Tool Manufacturer

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Oil

Cleaning Methods: Vapor Degreasing

Analytical Methods: Gravimetric

Purpose: To evaluate three cleaners on second contaminant using vapor degreasing

Experimental Procedure: Three products were selected based on results from previous trials. All products were used heated to 160 F on a hot plate in 250 ml beakers. Nine preweighed steel coupons were coated with Rochester Midland RI780 rust preventative (80252-41-3, 95-63-6) using a hand held swab. The oil was then heated with a Master Appliance Heat gun at 300 F for 10 minutes. After cooling to room temperature, a second weighing was performed to determine the amount of soil that was added. Three coupons were cleaned in each solution for 15 minutes in the bench top vapor degreaser. After cooling, coupons were weighed a final time to determine the cleaning efficiency of each product.

Results: All three products removed over 99% of the oil within 15 minutes of degreasing. Observations note that most of the oil was removed within the first 5 minutes of vapor exposure. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon.

Cleaner	Initial wt	Final wt	% Removed
Solvon PB	0.0876	-0.0004	100.46
	0.1147	0.0003	99.74
	0.1092	0.0005	99.54
Ensolv A	0.1206	0.0001	99.92
	0.0406	0.0002	99.51
	0.0245	-0.0002	100.82
Metalnox M6960	0.0781	-0.0002	100.26
	0.0374	-0.0003	100.80
	0.0338	0.0007	97.93

Summary:

Substrates:	Steel
Contaminants:	Oil

Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Poly Systems USA Inc	Solvon Kreussler PB	100	99.91	☑	
Enviro Tech International Inc	Ensolv A	100	100.08	☑	
Kyzen Corporation	Metalnox M6960	100	99.66	☑	

Conclusion: The same products will be evaluated under the same conditions for the varnish contaminant.