CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 07/22/2004

Experimenters: Jason Marshall, Heidi Wilcox, Andy Harris

ClientType: Metal Finishing

ProjectNumber: Project #2

Substrates: Steel

PartType: Part

Contaminants: Coatings

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To clean supplied parts using the six effective products and ultrasonic energy.

Experimental Procedure: The six products that were found to be effective on all three soils were used at 120 F in a Crest Ultrasonic 40 KHz tank. Five products were used at 5% dilutions in 600 ml beakers and the sixth was used as received from the client in a 400 ml beaker. Each beaker was submersed in the tank filled with water at 120 F and degassed for 5 minutes.
Four to five parts were cleaned in each product for five minutes with ultrasonic energy. The parts were rinsed in tap water at 120 F for 30 seconds and dried using air blow off at room temperature for 30 seconds. Parts were visually inspected and then packaged. Parts were sent back to client to determine effectiveness.

Possible soils: Castrol Industries Rustilo 4163 (64742-46-7, 8002-74-2, 34590-94-8); Castrol Industries Rustilo DW 924 (64742-88-7, 64742-95-6, 64741-89-5, 64741-97-5, 64742-53-6, 95-63-6)

Results: Most of the parts appeared to be cleaned well. Two rings, one cleaned in M-Aero and the other in Alkalume LN had some visual signs of soil on the outside of the rings.

Summary:

Substrates:	Steel				
Contaminants:	Coatings				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Today & Beyond	Beyond 2004	5	0.00	☑	
Buckeye International	Aeromaster	5	0.00	☑	
Brulin Corporation	Aquavantage 1400	5	0.00	☑	
Church & Dwight Co Inc.	Armakleen M Aero NS	5	0.00	☐	Some soil/marks on one ring
Brulin Corporation	815 QR	5	0.00	☑	
McGean Rohco Inc	Alkalume LN	100	0.00	☐	Some soil/marks on one ring

Conclusion: Parts will be tested at client for final effectiveness.