CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 06/25/2008

Experimenters: Jason Marshall, Shweta Bansal

ClientType: Tool Manufacturer

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Metal fines

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To evaluate top products at two concentrations and an elevated temperature.

Experimental Procedure: The top five products were selected from the previous lab trial. Products were diluted to 5% using DI water in 300 ml glass beakers. Water also was used. Solutions were heated to 130 F. The beakers were immersed in a water bath in a Branson 40 kHz ultrasonic tank. Products were degassed for five minutes.

A set of three soiled steel parts (with metal grit/fines) were immersed into each product and cleaned for 5 minutes using ultrasonic agitation. Following cleaning, coupons were observed for cleanliness.

Results: As in the previous trial Daraclean 282 GF cleaned parts at both 5 and 10% dilutions at 130 F were visually the cleanest. At 5%, Polyspray Jet 790xs was the next cleanest followed by M Aero. At 10% these two products were reversed with M Aero having cleaning parts than 790xs.

Product	5 Min Rank	10 Min Rank
Micro 90	5	5
790xs	2	3
282 GF	1	1
M6310	4	4
M Aero	3	2
Water	6	6

Summary:

Substrates:	Steel				
Contaminants:	Metal fines				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
International Products Corporation	Micro 90 Conc.	5	0.00	☐	
US Polychem Corporation	Polyspray Jet 790 XS	5	0.00	☑	
Magnaflux	Daraclean 282 GF	5	0.00	☑	
Kyzen Corporation	Metalnox M6310 (For Comparison Only)	5	0.00	☐	
Church & Dwight Co Inc.	Armakleen M Aero	5	0.00	☑	
Water	Water	100	0.00	☐	

Conclusion: Heating the cleaning products yielded the cleanest parts. In each of the trials, Daraclean 282 GF yielded the cleanest parts for the metal grit removal. Photos of parts are included below for 5 and 10% cleaning at 130F.