CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 12/07/2004

Experimenters: Jason Marshall

ClientType: Manufacturers of Precision Parts and Assemblies

ProjectNumber: Project #1

Substrates: Plastic, Stainless Steel

PartType: Part

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To evaluate aqueous cleaners on supplied parts using ultrasonic cleaning

Experimental Procedure: The three top products from the previous aqueous cleaning trial were used at the same dilutions (2%). Each beaker was immersed into a Crest 40 kHz ultrasonic tank filled with water heated to 115 F. The products were degassed for 5 minutes.

Parts were received contaminated with Fuch's Lubricants Renocut 6515 NC (mineral oil, vegetable oil) from the client. Two parts were cleaned in each product for 2 minutes with ultrasonics. Coupons were again rinsed in water at 120 F for 15 seconds and dried with air blow off at room temperature for 30 seconds. Once dry, final observations were recorded.

Results: Observation of the parts prior to cleaning revealed that each part was sufficiently coated with the Fuch's Renocut 6515 NC almost to the point of over coated. After cleaning no visible signs of oil were observable. The parts looked as clean as the parts previously cleaned with the client's current contact cleaner.

Cleaner	Part Description	Observations
Amberclean Q3	Steel cylinder with threads in the middle	No oil
	Clear plastic cylinder	No oil
Formula 815 GD	Steel nut with threads on end	No oil
	Tan plastic cylinder	No oil
Valtron SP 2275	Steel cylinder with no threads	No oil
	Clear plastic cylinder	No oil

Summary:

Substrates:	Plastic, Stainless Steel				
Contaminants:	Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Innovative Organics Inc	Amberclean Q3	2	0.00	☑	
Brulin Corporation	Formula 815 GD	2	0.00	☑	
Valtech Corporation	Valtron SP 2275	2	0.00	☑	

Conclusion: The three aqueous products looked like they were capable of removing the oil from the small intricate parts when ultrasonic energy is included. Parts have been sent to the client for further analysis.