CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/21/2006

Experimenters: Jason Marshall

ClientType: Metal Working

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate cleaners on water-based buffing compound using immersion cleaning.

Experimental Procedure: The top two products from the previous trial were diluted to 5% in 250 ml beakers using DI water and heated to 130 F.

Six preweighed coupons were coated with the water-based compound using a handheld swab after heating. Coupons were weighed a second time to determine the amount of buffing compound added. Three coupons were cleaned in each solution for five minutes using immersion only. Coupons were rinsed for 15 seconds in a tap water bath at 120 F and dried using a dry compressed air for 30 seconds. Once dry coupons were weighed a final time and product efficiencies were calculated.

Results: The Polyspray 790 XS removed over 85% of the buffing compound using immersion cleaning. The Daraclean 283 removed about half. The following table lists the amount of buffing compound applied, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Daraclean 283	0.6750	0.2790	58.67
	0.6979	0.3241	53.56
	1.8303	0.9474	48.24
Polyspray Jet 790 XS	1.5549	0.0169	98.91
	0.4814	0.1249	74.05
	0.8616	0.0325	96.23

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Magnaflux	Daraclean 283	5	53.49	☐	
US Polychem Corporation	Polyspray Jet 790 XS	5	89.73	☑	

Conclusion: The addition of ultrasonic energy will result in an increase in efficiency for both products. Next steps will be to evaluate top cleaners on supplied parts at or after workshop.