CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 08/18/2004

Experimenters: Jason Marshall

ClientType: Jewelry Mfr

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: To evaluate two products on second supplied contaminant

Experimental Procedure: Two products from the previous trial were diluted to 5% using DI water in 600 ml beakers and heated to 130F in a Crest 40 kHz ultrasonic tank. The products were degassed for 10 minutes in the ultrasonic tank.

Six preweighed CDA260 brass coupons were contaminated with the second Matchless Metal Polishing compound using a hand held swab. Coupons were allowed to sit over night and reweighed to determine the amount of soil added. Three coupons were cleaned in each product for 5 minutes using ultrasonic energy. Coupons were rinsed in tap water for 15 seconds at 120F and dried using air blow off for 30 seconds at 68F. Once the coupons were dry, final weights were recorded and efficiencies were calculated.

Results: The Oakite Inproclean 3800 removed over 90% of the contaminant whereas the Today & Beyond 2003 removed just under 80%. The table list the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Product	Initial wt	Final wt	% Removed
Inproclean 3800	0.3780	0.0802	78.78
	0.2319	0.0054	97.67
	0.2535	0.0030	98.82
Beyond 2003	0.2939	0.0355	87.92
	0.4133	0.1299	68.57
	0.3556	0.0654	81.61

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Oakite Products	Inproclean 3800	5	91.76	☑	
Today & Beyond	Beyond 2003	5	79.37	☐	

Conclusion: The Oakite product will be used to clean one supplied part from the two manufacturing steps. Additional testing will be conducted on drop-in vapor degreasing solvents for both supplied contaminants.