CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 10/16/2006

Experimenters: Jason Marshall

ClientType: Metal Finishing

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate selected cleaners at higher concentrations in an attempt to improve efficiency

Experimental Procedure: Three alternative products were selected from the previous trial based on effectiveness. Each product was diluted to 10% in 250 ml beakers using DI water and heated to 130 F on a hot plate.

Nine preweighed coupons were heavily coated with the Matchless Metal Polishing TSX Tripoli (1317-95-9) buffing compound by heating the buffing compound and rubbing it onto the surface of the coupons. 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 minimal stir bar agitation. 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: Two products removed over 90% of the buffing compound from the brass coupons after five minutes of immersion cleaning. 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
Polyspray Jet 790 XS	0.2486	0.0323	87.01
	0.3719	0.0320	91.40
	0.3932	0.0034	99.14
Detergent 8	0.2855	0.0081	97.16
	0.1571	0.0011	99.30
	0.4925	0.0296	93.99
Micro 90	0.2813	0.2078	26.13
	0.2731	0.2688	1.57
	0.2978	0.2297	22.87

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
US Polychem Corporation	Polyspray Jet 790 XS	10	92.51	☑	
Alconox Inc	Detergent 8	10	96.82	☑	
International Products Corporation	Micro 90 Conc.	10	16.86	☐	

Conclusion: The two successful products, Polyspray Jet 790 XS and Detergent 8, will be used on the second supplied buffing compound.