

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006  
 DateRun: 10/15/2006  
 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 reevaluate three products at higher temperatures.

Experimental Procedure: Three alternative products were selected from the previous trial based on effectiveness. Each product was diluted to 5% in 250 ml beakers using DI water and heated to 150 F on a hot plate.  
 Nine preweighed coupons were heavily coated with the Matchless Metal Polishing TSX Tripoli (1317-95-9) buffing compound u 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: One product removed over 80% of the buffing compound from the brass coupons after five minutes of immersion cleaning. Two other products removed under 60%. 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	0.2563	0.1179	54.00
	0.3234	0.0922	71.49
	0.5825	0.3573	38.66
Detergent 8	0.3588	0.0740	79.38
	0.1170	0.0098	91.62
	0.2716	0.0530	80.49
Micro 90	0.3388	0.3178	6.20
	0.2448	0.1932	21.08
	0.3815	0.3023	20.76

Summary:

<b>Substrates:</b>	Brass				
<b>Contaminants:</b>	Buffing/Polishing Compounds				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
US Polychem Corporation	Polyspray Jet 790 XS	5	54.72	<input type="checkbox"/>	
Alconox Inc	Detergent 8	5	83.83	<input checked="" type="checkbox"/>	
International Products Corporation	Micro 90 Conc.	5	16.01	<input type="checkbox"/>	

Conclusion: The effectiveness of the products was not improved through the increase in temperature. A follow test will be conducted using the products at a higher concentration.