

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/31/2006

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 selected products for removing first supplied buffing compound using immersion cleaning

Experimental Procedure: Eight alternative products were selected from the lab's database of testing results based on supplied client information. Products were selected based on buffing compound removal potential and compatibility with brass metal substrates. Each product was diluted to 5% in 250 ml beakers using DI water and heated to 130 F on a hot plate.

Twenty-four preweighed coupons were coated with the brown buffing compound using a handheld swab. 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: Four products removed over 80% 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
XL 100	0.1546	0.0863	44.18
	0.1222	0.0472	61.37
	0.1883	0.1275	32.29
MC 132	0.1518	0.0136	91.04
	0.1152	0.0037	96.79
	0.1937	0.0547	71.76
Inproclean 3800	0.1355	0.0500	63.10
	0.1118	0.0481	56.98
	0.1526	0.0835	45.28
Polyspray Jet 790 XS	0.1198	0.0012	99.00
	0.1533	0.0115	92.50
	0.0857	0.0028	96.73
Daraclean 283	0.1416	0.0173	87.78
	0.1182	0.0181	84.69
	0.1004	0.0146	85.46
Texolite 1734 XL	0.1466	0.1086	25.92
	0.1081	0.0430	60.22
	0.1083	0.0397	63.34
Prepaint	0.0828	0.0695	16.06
	0.0990	0.0577	41.72
	0.0954	0.0691	27.57
Gillite 0650 CI	0.1059	0.0209	80.26
	0.0833	0.0122	85.35
	0.0960	0.0172	82.08

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>	

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Buckeye International	XL 100 Cleaner & Degreaser	5	45.95	<input type="checkbox"/>	
Matchless Metal Polish Company	MC 132	5	86.53	<input checked="" type="checkbox"/>	
Oakite Products	Inproclean 3800	5	55.12	<input type="checkbox"/>	
US Polychem Corporation	Polyspray Jet 790 XS	5	96.08	<input checked="" type="checkbox"/>	
Magnaflux	Daraclean 283	5	85.98	<input checked="" type="checkbox"/>	
Texo Corporation	Texolite 1734 XL	5	49.83	<input type="checkbox"/>	
Savogran Company	Dirtex Prepaint Cleaner	5	28.45	<input type="checkbox"/>	
Man Gill Chemical Company	Gillite 0650 Cl	5	82.57	<input checked="" type="checkbox"/>	

Conclusion: The four successful products will be used on the next supplied buffing compound.