CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/23/2006

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 third supplied buffing compound with the previously tested products.

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

Twelve preweighed coupons were coated with the brown buffing 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 minimal agitation in an immersion tank. 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: Only one product, Polyspray Jet 790 XS removed over 70% of the brown buffing compound with 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	0.1615	0.1289	20.19
	0.2366	0.1888	20.20
	0.5003	0.4542	9.21
MC 132	0.3288	0.2346	28.65
	0.1505	0.0826	45.12
	0.2272	0.0971	57.26
Inproclean 3800	0.1672	0.1323	20.87
	0.2443	0.1997	18.26
	0.1702	0.1149	32.49
Polyspray Jet 790 XS	0.1843	0.0534	71.03
	0.0859	0.0187	78.23
	0.1937	0.0689	64.43

Summary:

Substrates:	Brass
Contaminants:	Buffing/Polishing Compounds

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Buckeye International	XL 100 Cleaner & Degreaser	5	16.53	☐	
Matchless Metal Polish Company	MC 132	5	43.68	☐	
Oakite Products	Inproclean 3800	5	23.87	☐	
US Polychem Corporation	Polyspray Jet 790 XS	5	71.23	☑	

Conclusion: A follow up test will be conducted using ultrasonic energy in an attempt to improve cleaning efficiencies.