CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/16/2006

Experimenters: Jason Marshall

ClientType: Metal Working

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: To evaluate top two products at higher temperature to achieve higher efficiencies.

Experimental Procedure: Two products from the previous trial were diluted to 5% in 250 ml beakers using DI water and heated to 150 F in a Branson 3510 ultrasonic tank and degassed for 5 minutes.

Six preweighed coupons were coated with the green buffing compound using a handheld swab after heating to its melting point with a heat gun. 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 40 kHz ultrasonic 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: Both products were very successful with the increased temperature and the use of ultrasonic energy. The table lists the amount of buffing compound added, the amount remaining, and the efficiency of each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Daraclean 283	0.1812	0.0005	99.72
	0.1230	0.0007	99.43
	0.1115	0.0019	98.30
Polyspray Jet 790 XS	0.3844	0.0145	96.23
	0.1155	0.0010	99.13
	0.0962	0.0010	98.96

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Magnaflux	Daraclean 283	5	99.15	☑	
US Polychem Corporation	Polyspray Jet 790 XS	5	98.11	☑	

Conclusion: Both products will be used on the next supplied buffing compound.