CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 10/16/2006

Experimenters: Jason Marshall

ClientType: Metal Finishing

ProjectNumber: Project #1

Substrates: Sterling/Silver

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate selected cleaners on second supplied buffing compound.

Experimental Procedure: Two alternative products were selected from the previous trial based on effectiveness. A third product was selected based on past testing results from the lab's database. Each product was diluted to 10% in 250 ml beakers using DI water and heated to 130 F on a hot plate.

Nine preweighed silver plated coupons were heavily coated with the Mosher Company Inc Moco Steel Cut #2318 (68434-50-2, 555-43-1, 57-11-4, 26635-92-7, 1344-28-1) 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 of the products removed over 95% of the buffing compound using 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	0.0492	-0.0001	100.20
	0.0941	0.0006	99.36
	0.3210	0.0258	91.96
Detergent 8	0.0850	0.0064	92.47
	0.1276	0.0029	97.73
	0.2230	0.0056	97.49
Texolite 1734 XL	0.1288	0.0389	69.80
	0.1218	0.0503	58.70
	0.1004	0.0242	75.90

Summary:

Substrates:	Sterling/Silver				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
US Polychem Corporation	Polyspray Jet 790 XS	10	97.18	☑	
Alconox Inc	Detergent 8	10	95.90	☑	
Texo Corporation	Texolite 1734 XL	10	68.13	☐	

Conclusion: The two successful products, Polyspray Jet 790 XS and Detergent 8, will be used to clean supplied parts using immersion cleaning.