CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/06/2004

Experimenters: Jason Marshall

ClientType: Jewelry Mfr

ProjectNumber: Project #2

Substrates: Sterling/Silver

PartType: Coupon

Contaminants: Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate three products on the third supplied soil

Experimental Procedure: Three products were selected based on success on the fourth supplied contaminant. All were used at full strength in a 250 ml beaker at room temperature. Nine preweighed silver plated copper coupons were coated with the Lanson Oil Co Vanish 6912 (6742-48-9) using a hand held swab. Coupons were weighed a second time to determine the amount of soil added to each coupon. Three coupons were cleaned in each solution for 5 minutes using stir-bar agitation. After cleaning parts were weighed a final time and efficiencies were calculated.

Results: The three products removed over 95% of the oil in five minutes of immersion cleaning. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon.

Cleaner	Initial wt	Final wt	% Removed
OS 10	0.0807	0.0003	99.63
	0.0885	0.0010	98.87
	0.0570	0.0000	100.00
OS 20	0.0496	0.0003	99.40
	0.0537	0.0027	94.97
	0.0480	0.0002	99.58
OS 30	0.0489	0.0012	97.55
	0.0393	0.0014	96.44
	0.0692	0.0044	93.64

Summary:

Substrates:	Sterling/Silver				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Dow Chemical Company	OS 10	100	99.50	☑	
Dow Chemical Company	OS 20	100	97.98	☑	
Dow Chemical Company	OS 30	100	95.88	☑	

Conclusion: Several products have been found to remove all four of the supplied oils using immersion cleaning. Products need to be evaluated using vapor degreasing.