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 additional products on second 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 Houghton Chemical Cut-Max 135 (64742-52-5, 64741-96-4) 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: All three products removed over 99% of the oil in five minutes. 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	0.0880	0.0004	99.55
	0.1503	-0.0001	100.07
	0.1211	0.0007	99.42
OS 20	0.1031	-0.0001	100.10
	0.1743	0.0005	99.71
	0.1313	0.0002	99.85
OS 30	0.1355	0.0014	98.97
	0.1048	0.0008	99.24
	0.1512	0.0012	99.21

Summary:

Substrates:	Sterling/Silver				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Dow Chemical Company	OS 10	100	99.68	☑	
Dow Chemical Company	OS 20	100	99.89	☑	
Dow Chemical Company	OS 30	100	99.14	☑	

Conclusion: The same three products will be tested on the third supplied soil under the same conditions.