

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004  
DateRun: 05/07/2004  
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:

<b>Substrates:</b>		Sterling/Silver				
<b>Contaminants:</b>		Oil				
Company Name:		Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Dow Chemical Company		OS 10	100	99.68	<input checked="" type="checkbox"/>	
Dow Chemical Company		OS 20	100	99.89	<input checked="" type="checkbox"/>	
Dow Chemical Company		OS 30	100	99.14	<input checked="" type="checkbox"/>	

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