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 an additional five products on the first contaminant

Experimental Procedure: Five products were selected based on success on the fourth supplied contaminant. All five products were used at full strength in a 250 ml beaker. Two products were heated to 96 F on a hot plate and the three Dow products were used at room temperature. Twenty-seven preweighed silver plated copper coupons were coated with the Exxon Mobil Vacmul 03D (94741-44-2) 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 five products tested on the oil removed over 97% 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
Solvon PB	0.0662	-0.0003	100.45
	0.1293	0.0011	99.15
	0.1018	0.0006	99.41
Solvon IP	0.0773	0.0003	99.61
	0.0920	0.0011	98.80
	0.0770	0.0026	96.62
OS 10	0.0997	0.0021	97.89
	0.0839	0.0005	99.40
	0.0722	0.0014	98.06
OS 20	0.0944	0.0038	95.97
	0.0976	0.0018	98.16
	0.0616	0.0014	97.73
OS 30	0.1107	0.0020	98.19
	0.0522	0.0013	97.51
	0.0603	0.0013	97.84

Summary:

Substrates:	Sterling/Silver
Contaminants:	Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Poly Systems USA Inc	Solvon Kreussler PB	100	99.67	☑	
Poly Systems USA Inc	Solvon Kreussler IP	100	98.35	☑	
Dow Chemical Company	OS 10	100	98.45	☑	
Dow Chemical Company	OS 20	100	97.29	☑	
Dow Chemical Company	OS 30	100	97.85	☑	

Conclusion: The three Dow products will be tested on the second supplied oil.