

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004  
 DateRun: 05/27/2004  
 Experimenters: Jason Marshall  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Sterling/Silver  
 PartType: Coupon  
 Contaminants: Oil  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Each product was used at full strength in a 250 ml beaker and heated to 96 F on a hot plate. Nine preweighed silver plated copper coupons were coated with the Lanson Oil Co Vanish 6912 (6742-48-9) using a handheld 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.

Cleaner	Initial wt	Final wt	% Removed
Vertrel MCA	0.1071	0.0074	93.09
	0.0366	0.0055	84.97
	0.0661	0.0124	81.24
Heavy Duty Degreaser C	0.0682	0.0036	94.72
	0.0364	0.0072	80.22
	0.0731	0.0064	91.24
Flux Remover C	0.0357	0.0156	56.30
	0.0504	0.0140	72.22
	0.0766	0.0098	87.21

Summary:		<b>Substrates:</b> Sterling/Silver			
		<b>Contaminants:</b> Oil			
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
DuPont	Vertrel MCA	100	86.43	<input checked="" type="checkbox"/>	
Micro Care	Heavy Duty Degreaser C	100	88.73	<input checked="" type="checkbox"/>	
Micro Care	Flux Remover C	100	71.91	<input type="checkbox"/>	

Conclusion: Two of the three removed over 85%.