

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004  
 DateRun: 05/28/2004  
 Experimenters: Jason Marshall  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Steel  
 PartType: Coupon  
 Contaminants: Oil  
 Cleaning Methods: Vapor Degreasing  
 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. Two hundred fifty milliliters of each product were used at full strength in a 4000 ml beaker and heated to its boiling point on a hot plate. Preweighed aluminum coupons were coated with the Castrol Quench G oil (64742-55-8, 64742-65-0, 8052-42-4) 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 vapor degreasing. After cooling to room temperature, the coupons were weighed a final time and efficiencies were calculated.

## Results:

### Summary:

<b>Substrates:</b>		Steel				
<b>Contaminants:</b>		Oil				
<b>Company Name:</b>		<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
AGA Chemical		AK 225	100	99.94	<input checked="" type="checkbox"/>	
DuPont		Vertrel CCA	100	99.63	<input checked="" type="checkbox"/>	
DuPont		Vertrel MCA	100	100.07	<input checked="" type="checkbox"/>	
Micro Care		Heavy Duty Degreaser C	100	99.86	<input checked="" type="checkbox"/>	
Micro Care		Flux Remover C	100	99.92	<input checked="" type="checkbox"/>	
3M		HFE 7100	100	91.98	<input checked="" type="checkbox"/>	
3M		HFE 7200	100	94.16	<input checked="" type="checkbox"/>	
Enviro Tech International Inc		Ensolv	100	99.95	<input checked="" type="checkbox"/>	
Poly Systems USA Inc		Solvon Kreussler IP	100	100.18	<input checked="" type="checkbox"/>	
Dow Chemical Company		OS 10	100	98.93	<input checked="" type="checkbox"/>	
Dow Chemical Company		OS 20	100	98.09	<input checked="" type="checkbox"/>	
Dow Chemical Company		OS 30	100	81.14	<input type="checkbox"/>	

Conclusion: Eleven of the twelve products removed over 85%.