CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/25/2004

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Steel

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.

The three products were used heated to 96 F on a hot plate in 250 ml beakers. Nine preweighed steel coupons were coated with Castrol Quench G oil (64742-55-8, 64742-65-0, 8052-42-4) using a handheld swab. The quench oil was then heated with a Master Appliance Heat gun at 300 F for 10 minutes. After cooling to room temperature, a second weighing was performed to determine the amount of soil that was added. Three coupons were cleaned in each solution for 5 minutes with minimal stir-bar agitation. After drying, coupons were weighed a final time to determine the cleaning efficiency of each product.

Results:

Cleaner	Initial wt	Final wt	% Removed
OS 10	0.2443	0.0040	98.36
	0.1599	0.0040	97.5
	0.1475	0.0010	99.32
OS 20	0.2311	0.0027	98.83
	0.2689	0.0019	99.29
	0.2325	0.0031	98.67
OS 30	0.1503	0.0110	92.68
	0.2196	0.0077	96.49
	0.1436	0.0076	94.71

Summary:

Substrates:	Steel				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Dow Chemical Company	OS 10	100	98.39	☑	
Dow Chemical Company	OS 20	100	98.93	☑	
Dow Chemical Company	OS 30	100	94.63	☑	

Conclusion: The three products removed over 85%.