CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/25/2004

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Aluminum

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. Fifteen preweighed aluminum coupons were coated with the C.P. Hall Co. Plasthall ESO oil (8013-07-8) 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 allowed to sit for 10 minutes for drying at room temperature. The coupons were weighed a final time and efficiencies were calculated.

Results:

Cleaner	Initial wt	Final wt	% Removed
Solvon PB	0.3112	0.0040	98.71
	0.1351	0.0032	97.63
	0.1060	0.0045	95.75
Solvon IP	0.0835	0.0031	96.29
	0.2384	0.0050	97.90
	0.1079	0.0057	94.72
OS 10	0.5234	0.0338	93.54
	0.1758	0.0393	77.65
	0.3380	0.0368	89.11
OS 20	0.1906	0.0659	65.42
	0.3897	0.0626	83.94
	0.1701	0.0683	59.85
OS 30	0.3579	0.0891	75.10
	0.2055	0.0783	61.90
	0.3637	0.0742	79.60

Summary:

Substrates:	Aluminum
Contaminants:	Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Poly Systems USA Inc	Solvon Kreussler PB	100	97.37	☑	
Poly Systems USA Inc	Solvon Kreussler IP	100	96.30	☑	
Dow Chemical Company	OS 10	100	86.77	☑	
Dow Chemical Company	OS 20	100	69.74	☐	
Dow Chemical Company	OS 30	100	72.20	☐	

Conclusion: Three of the five products removed over 85%.