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 Cargill, Inc Canola Oil (120962-03-0) 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	0.5513	0.0031	99.44
	0.2799	0.0026	99.07
	0.4849	0.0018	99.63
Solvon IP	0.2713	0.001	99.63
	0.2168	0.0003	99.86
	0.2806	0.0011	99.61
OS 10	0.4924	0.0013	99.74
	0.2903	0.0026	99.10
	0.3817	0.0014	99.63
OS 20	0.2670	0.0027	98.99
	0.3246	0.0006	99.82
	0.2212	0.0025	98.87
OS 30	0.1623	0.0273	83.18
	0.1865	0.0297	84.08
	0.2718	0.0206	92.42

Summary:

Substrates:	Aluminum
Contaminants:	Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Poly Systems USA Inc	Solvon Kreussler PB	100	99.38	☑	
Poly Systems USA Inc	Solvon Kreussler IP	100	99.70	☑	
Dow Chemical Company	OS 10	100	99.49	☑	
Dow Chemical Company	OS 20	100	99.22	☑	
Dow Chemical Company	OS 30	100	86.56	☑	

Conclusion: All five products removed over 85% of the canola oil.