CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 06/24/2008

Experimenters: Jason Marshall, Heidi Wilcox, Shweta Bansal

ClientType: Chemical Company

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Resins/Rosins

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate top seven products without rinsing or air blow off drying.

Experimental Procedure: The seven products from the previous trials were selected based on successful removal of the resin were used at full strength in 300 ml glass beakers. Solutions were used at room temperature. Twenty-seven preweighed aluminum coupons were coated with the Mereco ECN 809 Base Black resin using a swab. Coupons were weighed a second time to determine the amount of soil added. Three coupons were immersed into each product and cleaned for 60 minutes using no agitation. The coupons were not rinsed and were allowed to air dry for one hour at room temperature. Final weights were recorded, and efficiencies were calculated.

Results: All seven products removed more than 95% of the resin after soaking for one hour. There were traces of cleaning residue from each product but at varying levels. The Maxi Solv had the least residue left on the coupons followed by Bio T Max and Green Solutions floor stripper. The table lists the amount of resin added, the amount remaining, the efficiency for each coupon cleaned and the ranking of residue remaining.

Cleaner	Initial wt	Final wt	% Removed	Residue Rank
EZ Solv	2.1808	0.0926	95.75	6
	1.9466	0.0396	97.97	
	1.7795	0.0443	97.51	
Maxi Solv	3.5472	0.0348	99.02	1
	2.5026	0.0264	98.95	
	2.8289	0.0253	99.11	
Graffiti Remover SAC	2.5744	0.0586	97.72	5
	2.7154	0.0567	97.91	
	2.6370	0.0401	98.48	
Green Solutions floor stripper	1.7843	0.0288	98.39	3
	2.5892	0.0382	98.52	
	3.1414	0.0661	97.90	
Bio T Max	2.7684	0.0453	98.36	2
	2.1720	0.0446	97.95	
	2.2045	0.0414	98.12	
Graffiti Remover	2.8079	0.1344	95.21	7
	2.6951	0.1285	95.23	
	4.0839	0.1376	96.63	
Smart Solv	2.8939	0.0349	98.79	4
	2.4823	0.0508	97.95	
	4.8450	0.0451	99.07	

Residue Rank: 1 least residue, 7 most residue

Summary:

Substrates:	Aluminum

CLEANING LABORATORY EVALUATION SUMMARY

Contaminants:	Resins/Rosins				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Gemtek Products	SC EZ Solv Safety Solvent	100	97.08	☑	
Gemtek Products	Safe Care (SC) Maxi Solv	100	99.02	☑	
Spartan Chemical Company	Graffiti Remover SAC	100	98.04	☑	
Spartan Chemical Company	Green Solutions Floor Stripper	100	98.27	☑	
Bio Chem Systems	Bio T Max	100	98.14	☑	
Finger Lakes Chemical	Graffiti remover	100	95.69	☑	
United Laboratories International	Smart Solve 605	100	98.61	☑	

Conclusion: The next phase of testing will be to evaluate the six products on supplied dirty parts.