CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 06/22/2008

Experimenters: Jason Marshall, 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 successful products for longer cleaning times on the resin.

Experimental Procedure: Six products were selected from the previous trial based on successful removal of the resin. Each product was used at full strength in 300 ml glass beakers. Solutions were used at room temperature. Eighteen 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 20 minutes using no agitation. Following cleaning, coupons were rinsed for 15 seconds in tap water at 68 F and dried using air blow off for 30 seconds at room temperature. Final weights were recorded, and efficiencies were calculated.

Results: The extended cleaning time increased the efficiency for all six products. Two products removed more than 90% of the resin, three removed more than 80%. The last product removed just under 80%. The table lists the amount of resin added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
EZ Solv	1.1997	0.0453	96.22
	1.4487	0.1141	92.12
	1.3278	0.0407	96.93
Graffiti Remover SAC	0.3810	0.0188	95.07
	1.8079	0.6413	64.53
	1.1350	0.1097	90.33
Bio T Max	0.9787	0.2780	71.59
	1.0709	0.1125	89.49
	1.3291	0.3124	76.50
Graffiti Remover	0.6904	0.0937	86.43
	0.7785	0.1053	86.47
	1.4637	0.1189	91.88
Smart Solve 605	0.5207	0.0151	97.10
	0.1691	0.0175	89.65
	0.8487	0.0266	96.87
Floor Finish Remover	0.5708	0.0127	97.78
	1.1040	0.2609	76.37
	0.7661	0.0835	89.10

Summary:

Substrates:	Aluminum				
Contaminants:	Resins/Rosins				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Gemtek Products	SC EZ Solv Safety Solvent	100	95.09	☑	
Spartan Chemical Company	Graffiti Remover SAC	100	83.31	☑	
Bio Chem Systems	Bio T Max	100	79.20	☑	
Finger Lakes Chemical	Graffiti remover	100	88.26	☑	
United Laboratories International	Smart Solve 605	100	94.54	☑	
Spartan Chemical Company		100	87.75		

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	Green Solutions Floor Stripper			☑	

Conclusion: Additional testing may be conducted to determine the optimum concentration for the products that can be diluted with water.