CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2015

DateRun: 07/14/2015

Experimenters: Luis Raudales

ClientType: General

ProjectNumber: Project #1

Substrates: Wood

PartType: Coupon

Contaminants: Paints

Cleaning Methods: Manual Paint Stripping

Analytical Methods: Gravimetric, Visual

Purpose: To evaluate four paint removers using a manual removal of paint and varnish from painted wooden coupons.

Experimental Procedure: Twelve pre-weighted wooden coupons were double coated with the supplied paint or varnish. Once dried, a second weight was recorded to determine the amount of paint added to the coupon. The cleaner was applied to each coupon with a brush and then cleaned using a 3 m Heavy Duty Scour Pad. Each coupon was scraped firmly ten times every five minutes for a 30-minute period. Then by visual and manual comparison efficiency were placed.

Results:

Cleaner	Dirty Weight	Clean Weight	% Removal
Nature Sol 100	0.1190	-0.1509	-1.27
	-0.1938	-0.0209	0.11
	0.4473	-0.0317	-0.07
EP-921	-0.0420	-1.0986	26.16
	-0.1148	-0.3655	3.18
	0.3454	-0.2382	-0.69
Bio-Solv	0.2217	0.2840	1.28
	-0.0294	0.0095	-0.32
	0.8010	-0.4589	-0.57
Soy Gold 1000	0.2684	-2.8769	-10.72
	2.2256	-2.2438	-1.00
	0.8212	-0.9771	1.19

Visual Ranking

Cleaner	5 min	10 min	15 min	20 min	25 min	30 min
Nature Sol 100	3	2	2	1.5	1	1
EP-921	5	5	5	5	4.5	3
Bio-Solv	5	4.5	4	4	4	4
Soy Gold 1000	5	4.5	4.5	4.5	4	2

Summary:

Substrates:	Wood				
Contaminants:	Paints				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Nature Sol 100	100	0.00	☐	Had poor results on Semi Gloss Varnish but it worked fine on Latex Acrylics Paint and Minwax Polyeurthane.
Inland Technologies Inc	EP 921	100	0.00	☑	Had the second best performance. It needed more time to work but was able to remove the three different paints.
Westford Chemical Corporation	Biosolve	100	0.00	☑	Had the best performance and time for removing all three paints.
AG Environmental Products	Soy Gold 1000	100	0.00	☐	

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					Had no removal on the Semi Gloss Varnish and Latex Acrylic paint. Had limited results on the Polyurethane Paint.

Conclusion: Overall, Biosolve was the best paint stripper for removing all three paint contaminants. EP 921 would be another good option to look further into as a Methylene Chloride alternative on other types of paints. Future testing should include these two paint strippers.