CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2007
DateRun:	06/11/2007
Experimenters:	Jason Marshall, Shweta Bansal, Andrea Cheeseman
ClientType:	General
ProjectNumber:	Project #2
Substrates:	Plastic
PartType:	Coupon
Contaminants:	Waxes
Cleaning Methods:	Mechanical Agitation
Analytical Methods:	Black light, Photography, Visual
Purpose:	To evaluate the eight products identified in the screening test using mechanical agitation.
Experimental Procedure:	Eight products from the first trial were tested at full strength and room temperature. In addition, the client's current product was used at the recommended dilution (25%) for comparative purposes. Twenty-seven vinyl tile coupons (3"x4") were coated with the Johnson Wax Show Place floor coating using a hand held swab. The coating was allowed to dry for an hour. After completely dry, additional coats were applied. A total of four coats were used. After all coats were applied, pictures were taken of the coupons using regular lighting and under black light. Each solution was applied to three coupons and allowed to soak for 10 minutes. At the end of the soaking, the coupons were wiped to remove excess floor stripping solution. Each coupon was then cleaned using a scrub pad supplied by the client. Cleaning was performed at approximately 175 rpms. After cleaned pictures were again taken using both regular and black light conditions. Each set of three coupons were then compared according to the amount of removal to the other products tested. Rankings were made by three lab staff members.
Results:	Only two products were found to not remove the floor coating after the cleaning process. One was the current product, Johnson Prostrip and the other was 1st Environmental Safety Industrial Cleaner & Degreaser. Of the seven effective products, three had odor concerns. These included Gemtek MaxiSolv, Fingerlakes Resineater and Graffiti Remover. The table below lists the observations made.

Product	Observations
Pro-Strip	Initial set of cleaning had to be repeated due to malfunction. The cleaning did not remove the wax; however the could be peeled off by hand. Two of the coupons had a gummy residue left behind.
SC-Maxi Solve	Strong chemical odor. Wax was initial removed from only one coupon. Equipment malfunction resulted in the need to retest. After retesting, the wax was removed effectively. There was a strong odor.
Industrial Cleaner/ Degreaser	Did not remove wax, left a yellowish-brown tint on coupon, looks "dirty". Dropped from further testing.
Safe Strip	All wax removed, smooth, clean finish.
EP 921	Removed almost all wax, smooth, clean finish. Strong chemical odor.
Resineater	All wax removed, smooth, clean finish. Strong chemical odor.
Graffiti Remover	All wax removed, smooth, clean finish. Could be scrubbed for <5min. Strong citrus odor.
Pine Strip	All wax removed, smooth, clean finish. Could be scrubbed for <5min. Strong pine odor.
Amaizeing	

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	One coupon had some wax remaining. All three had a smooth, clean finish.

Observer 1 considered the top six products to be indistinguishable from one another and ranked them all equally. The bottom three products were the same for all three observers. The top performer from two of the observers was Pine Strip. The ranking from the three personnel are listed in the next table.

Product	Observer 1	Observer 2	Observer 3
Pro-Strip	9	9	9
SC-Maxi Solve	7	7	7
Industrial Cleaner/ Degreaser	8	8	8
Safe Strip	1	3	2
EP 921	1	6	5
Resineater	1	4	3
Graffiti Remover	1	2	4
PineStrip	1	1	1
Amaizeing	1	5	6
1-Best; 9-worst			

Summary:

Substrates:	Plastic
Contaminants:	Waxes

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Johnson Wax	Pro Strip	25	0.00	☐	
Gemtek Products	Safe Care (SC) Maxi Solv	100	0.00	☑	Odor
1st Envirosafety Inc. - No Longer Exists	Organic Cleaner/Degreaser - For Comparison Purposes Only	100	0.00	☐	
EcoLink	Safe Strip	100	0.00	☑	
Inland Technologies Inc	EP 921	100	0.00	☑	
Finger Lakes Chemical	FLSC-12 Resineater Sample	100	0.00	☑	Strong odor
Twin Rivers Technologies	Graffiti Remover	100	0.00	☑	Strong Odor
Finger Lakes Chemical	FLSC-47 Pine Strip	100	0.00	☑	
Green Products	aMAIZEing biobased solvent and stripper	100	0.00	☑	

Conclusion:

The effective products will be reviewed to determine if products can be diluted, how much they cost and the biobased content level.