CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 05/19/2010

Experimenters: Jason Marshall, Heidi Wilcox, Timothy Weil

ClientType: Biomedical Device Manufacturer

ProjectNumber: Project #1

Substrates: Glass/Quartz

PartType: Coupon

Contaminants: Waxes

Cleaning Methods: Immersion/Soak

Analytical Methods:

Purpose: To evaluate selected products for their effectiveness in removing wax from a glass substrate

Experimental Procedure: Twelve products were selected from the TURI lab's database, www.cleanersolutions.org, to evaluate their effectiveness in removing wax from a glass substrate. Thirty-six pre-weighed glass coupons were coated with the wax provided by the client. Coupons were weighed a second time to determine the amount of wax added. Three coupons were immersed into 400 ml of each product in 600 ml glass beakers and cleaned for 5 minutes at room temperature with no agitation. Final weights were recorded and efficiencies were calculated.

Results:

Product	Initial Wt	Dirty wt	% Removed
Inproclean 3800 (100%)			
	0.0538	0.0821	-52.60
	0.0798	0.1056	-32.33
	0.1111	0.1384	-24.57
SC 1000 (100%)			
	0.0788	0.0782	0.76
	0.0839	0.0859	-2.38
	0.1318	0.1344	-1.97
SolSafe 245			
	0.2616	0.2006	23.32
	0.1772	0.1153	34.93
	0.1060	0.0512	51.70
DS 108			
	0.1353	0.1048	22.54
	0.1466	0.1234	15.83
	0.1564	0.1369	12.47
CitriKleen XPC			
	0.1385	0.1266	8.59
	0.1030	0.1149	-11.55
	0.0619	0.0578	6.62
Bio T Max			
	0.0419	0.0265	36.75
	0.1392	0.0892	35.92
	0.0644	0.0366	43.17
Canola Gold CE 110			
	0.1171	0.2360	-101.54
	0.1007	0.1878	-86.50
	0.0712	0.1702	-139.05
Hubtron PB			
	0.0500	0.0101	79.80
	0.0915	0.0444	51.48
	0.0757	0.0325	57.10

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Inproclean 3800 (5%)			
	0.1244	0.1293	-3.94
	0.1319	0.1398	-5.99
	0.1565	0.1596	-1.98
SC 1000 (5%)			
	0.0863	0.0863	0.00
	0.0648	0.0680	-4.94
	0.0971	0.1045	-7.62
SoyClear 1500			
	0.1762	0.1822	-3.41
	0.2050	0.2125	-3.66
	0.1762	0.1810	-2.72
D Greeze 500 LO			
	0.1271	0.1307	-2.83
	0.1118	0.1154	-3.22
	0.0917	0.0947	-3.27

Summary:

Substrates:	Glass/Quartz
Contaminants:	Waxes

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Oakite Products	Inproclean 3800	100	-36.50	☐	
Gemtek Products	SC 1000 Aqueous Cleaner Concentrate	100	-1.20	☐	
Bio Chem Systems	Solsafe 245	100	36.65	☐	
Dysol	DS 108 Wipe Solvent	100	16.95	☐	
Pentone Corporation	Citrikleen XPC	100	1.22	☐	
Bio Chem Systems	Bio T Max	100	38.61	☐	
AG Environmental Products	Canola Gold CE110	100	-109.03	☐	
Hubbard Hall Inc	Hubtron PB	100	62.78	☑	
Oakite Products	Inproclean 3800	5	-3.97	☐	
Gemtek Products	SC 1000 Aqueous Cleaner Concentrate	5	-5.31	☐	
AG Environmental Products	Soy Clear 1500	100	-3.26	☐	
Transene Company, Inc.	D Greeze 500 LO	100	-3.11	☐	

Conclusion:

The Hubtron PB, will be tested again using a longer time immersion soak and possibly heat. A dibasic ester product and a newly received bio-based product will also be tried in the next round of testing.