CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2005
DateRun:	08/23/2005
Experimenters:	Jason Marshall
ClientType:	Medical Instrument Mfr
ProjectNumber:	Project #1
Substrates:	Plastic, Rubber
PartType:	Coupon
Contaminants:	Waxes
Cleaning Methods:	Immersion/Soak
Analytical Methods:	
Purpose:	To generate a list of alterntives that have been used to remove wax.
Experimental Procedure:	Using the laboratory's database for solvent cleaning substitution, the lab generated the following lists of products. The first list contains products that have been evaluated at SSL under similar conditions to the client's criteria. The second list contains vendor suggested products based on client supplied data.
Results:	Laboratory Tested Products

Contaminant: Wax
Substrate: Plastic
Equipment: Various

CompanyName	ProductName
Bio Chem Systems	Bio T Max
DuPont	DBE 6
Gemtek Products	SC Actisolv
Johnson Wax	Pro Strip
Pioneer Eclipse	EnviroStar Green Floor Stripper
PureTech International	Botanical Gold
Soysolv Industrial Products	Cornsolv
Soysolv Industrial Products	Soysolv
Soysolv Industrial Products	Soysolv II Plus

Substrate: Any
Equipment: Any
Contaminant: Wax
Specifics

Contaminant Specifics
Wax
Wax - Aremco Crystalbond 509 (25610-19-9, 107-21-1)
Wax - Beeswax
Wax - Blanchard Stacking Wax #5
Wax - Johnson Wax Professional Show Place (40861-29-8, 78-51-3, 4590-94-8, 111-90-0)
Wax - Mobilewax 2305
Wax - Roger Reed 6816 Wax, Naturally occuring organic and neutral materials
Wax - Roger Reed 93114 Wax, Hyrdocarbon waxes
Wax - Roger Reed 98033 Wax, Hyrdocarbon waxes
Wax - Roger Reed 98045 Wax, Hyrdocarbon waxes
Wax - Stacking wax

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Wax - Stevenson Brothers and Co. Inc. Petroleum Paraffin wax

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CompanyName	ProductName
AG Environmental Products	Canola Gold CE110
AJ Associates	Dynadet
Alconox Inc	Alcojet
Bio Chem Systems	Bio T 200 A
Bio Chem Systems	Bio T Max
Bio Chem Systems	Solsafe 245
Calgon Corporation	Geo Guard 2215
DuPont	DBE 5
DuPont	DBE 6
Dynamold Solvents Inc	DS 108
Florida Chemical Company	Citrus Burst 7
Gemtek Products	SC Actisolv
Innovative Organics Inc	Amberclean 527 L
Johnson Wax	Pro Strip
Metabolix Inc	Metabolix E3HB
National Diagnostic	Histo Clear
National Diagnostic	Opti Clear
Oakite Products	Inproclean 2000
Oakite Products	Inproclean 3800
Pentone Corporation	Citrikleen XPC
Pioneer Eclipse	EnviroStar Green Floor Stripper
PureTech International	Botanical Gold
Solvent Kleene Inc	D Greeze 1000
Solvent Kleene Inc	D Greeze 500 LO
Soysolv Industrial Products	Cornsolv
Soysolv Industrial Products	Soysolv
Soysolv Industrial Products	Soysolv II Plus
Texo Corporation	Texolite 1734 XL
Today & Beyond	Beyond 2006
Universal Photonics	Uni Clear
Universal Photonics	Uni Clear II
US Polychem Corporation	Polyspray Jet 790 C
Water	Steam

Vendor Recommended Products
Contaminant: Wax
Equipment: Ultrasonics
Substrate: Plastic and Rubber

CompanyName	ProductName	ClassificationDescription
Alconox Inc	Alcojet	Powder Detergent-Alkaline
Alconox Inc	Citranox	Acidic Aqueous
Alconox Inc	Terg-A-Zyme	Enzymatic/Microbial
Bio Chem Systems	Bio T 200 A	Terpene
Bio Chem Systems	Green Stuff (6325)	Alkaline Aqueous
Bio Chem Systems	Neutral Green (8020)	Alkaline Aqueous

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Bio Chem Systems	Solsafe 245	Petroleum Distillate
Brulin Corporation	Aquavantage 1400	Alkaline Aqueous
Chrisal USA Inc	Super CMF 240	Alkaline Aqueous
Gemtek Products	SC 1000	Alkaline Aqueous
Gemtek Products	SC Aircraft & Metal Cleaner	Alkaline Aqueous
Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash	Alkaline Aqueous
Innovative Organics Inc	Amberclean Q3	Alkaline Aqueous
Magnaflux	Daraclean 212	Neutral Aqueous
Magnaflux	Daraclean 235	Neutral Aqueous
Magnaflux	Daraclean 238	Alkaline Aqueous
Magnaflux	Daraclean 257	Alkaline Aqueous
Magnaflux	Daraclean 282	Alkaline Aqueous
Magnaflux	Daraclean 282 GF	Alkaline Aqueous
Magnaflux	Daraclean 283	Alkaline Aqueous
Phase III Inc	California Parts Washer Solution	Neutral Aqueous
Safe Science Inc	Safe Science Concrete/ Graffiti (Industrial)	Alkaline Aqueous
SOQ Environmental Technology	Ecomate FN	Alkaline Aqueous
System One Technologies	QSOL 100	Petroleum Distillate
System One Technologies	QSOL 110	Petroleum Distillate
Today & Beyond	Beyond 2001	Alkaline Aqueous
Today & Beyond	Beyond 2002	Alkaline Aqueous
Today & Beyond	Beyond 2003	Alkaline Aqueous
Today & Beyond	Beyond 2004	Alkaline Aqueous
Today & Beyond	Beyond 2005	Alkaline Aqueous
Today & Beyond	Beyond 2006	Alkaline Aqueous
Today & Beyond	Beyond 2007	Alcohol
US Polychem Corporation	Hydropurge 36	Alkaline Aqueous
US Polychem Corporation	Polychem 2000 P	Alkaline Aqueous
US Polychem Corporation	Polychem A 2000 XS	Alkaline Aqueous

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US Polychem Corporation	Polychem DE 144	Petroleum Distillate
US Polychem Corporation	Polychem DEOX 007	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 21	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 36 XS	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 790 XS	Alkaline Aqueous
US Polychem Corporation	Polychem PW 147	Alkaline Aqueous
US Polychem Corporation	Polychem RCC 25	Terpene-Petroleum Distillate
US Polychem Corporation	Polyspray Jet 790 P	Alkaline Aqueous
US Polychem Corporation	Polyspray Jet 790 XS	Alkaline Aqueous
US Polychem Corporation	Polyspray Jet ST-21	Alkaline Aqueous
Valtech Corporation	Valtron DP 97031	Neutral Aqueous

Contaminant: Waxes
Equipment: Immersion
Substrate: Plastic and Rubber

CompanyName	ProductName	ClassificationDescription
Alconox Inc	Alcojet	Powder Detergent-Alkaline
Alconox Inc	Citranox	Acidic Aqueous
Alconox Inc	Terg-A-Zyme	Enzymatic/Microbial
Bio Chem Systems	Bio T 200 A	Terpene
Bio Chem Systems	Bio T 300 B	Terpene-Semi-Aqueous
Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
Bio Chem Systems	Bio T Parts Washer NR	Terpene
Bio Chem Systems	Green Stuff (6325)	Alkaline Aqueous
Bio Chem Systems	Neutral Green (8020)	Alkaline Aqueous
Bio Chem Systems	Solsafe 245	Petroleum Distillate
Calgon Corporation	SC 844	Organic
Chrisal USA Inc	Super CMF 240	Alkaline Aqueous
Finger Lakes Chemical	2-22 D Limonene Industrial Cleaner	Alkaline Aqueous
Gemtek Products	SC 1000	Alkaline Aqueous
Gemtek Products	SC Aircraft & Metal Cleaner	Alkaline Aqueous
Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash	Alkaline Aqueous
		Alkaline Aqueous

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Innovative Organics Inc	Amberclean Q3	
Magnaflux	Daraclean 212	Neutral Aqueous
Magnaflux	Daraclean 235	Neutral Aqueous
Magnaflux	Daraclean 282	Alkaline Aqueous
Magnaflux	Daraclean 282 GF	Alkaline Aqueous
Magnaflux	Daraclean 283	Alkaline Aqueous
PCI of America	Hurrisafe 9010	Alkaline Aqueous
PCI of America	Hurrisafe 9575	Alkaline Aqueous
Phase III Inc	California Parts Washer Solution	Neutral Aqueous
Safe Science Inc	Safe Science Concrete/ Graffiti (Industrial)	Alkaline Aqueous
SOQ Environmental Technology	Ecomate FN	Alkaline Aqueous
System One Technologies	QSOL 110	Petroleum Distillate
Today & Beyond	Beyond 2001	Alkaline Aqueous
Today & Beyond	Beyond 2002	Alkaline Aqueous
Today & Beyond	Beyond 2003	Alkaline Aqueous
Today & Beyond	Beyond 2004	Alkaline Aqueous
Today & Beyond	Beyond 2005	Alkaline Aqueous
Today & Beyond	Beyond 2006	Alkaline Aqueous
Today & Beyond	Beyond 2007	Alcohol
US Polychem Corporation	Hydropurge 36	Alkaline Aqueous
US Polychem Corporation	Polychem 2000 P	Alkaline Aqueous
US Polychem Corporation	Polychem A 2000 XS	Alkaline Aqueous
US Polychem Corporation	Polychem DE 144	Petroleum Distillate
US Polychem Corporation	Polychem DEOX 007	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 21	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 36 XS	Alkaline Aqueous
US Polychem Corporation	Polychem Hydropurge 790 XS	Alkaline Aqueous
US Polychem Corporation	Polychem PW 147	Alkaline Aqueous
US Polychem Corporation	Polychem QS 85 LO	Terpene-Petroleum Distillate

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US Polychem Corporation	Polychem RCC 25	Terpene-Petroleum Distillate
US Polychem Corporation	Polyspray Jet 790 P	Alkaline Aqueous
US Polychem Corporation	Polyspray Jet 790 XS	Alkaline Aqueous
US Polychem Corporation	Polyspray Jet ST-21	Alkaline Aqueous

Summary:

Conclusion: Cleaning varies from case to case. The SSL recommends process specific testing on potential replacement cleaning chemicals. If more information is needed on a particular product, or you are interested in conducting cleaning trials, please contact the lab at (978)934-3133.