

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 02/17/2004

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Resins/Rosins

Cleaning Methods:

Analytical Methods:

Purpose: To identify the best possible way to clean epoxy off the surface of a holding tray

Experimental Procedure: Using the laboratory's database for solvent cleaning substitution, the lab generated the following lists of products. The products have been evaluated at SSL under similar conditions to the client's criteria.

Results: Three lists of products were generated based on client input. The first table contains products that have been tested for resin removal on steel surfaces. The second list has products that have been tested for resin removal on other non steel surfaces. The final table designated as Vendor List contains products that are recommended by vendors for resin removal from steel surfaces.

Table of Resin Removal From Steels

Resin Removal From Non-steels	
CompanyName	ProductName
Bio Chem Systems	Bio T Max
Bio Chem Systems	Solsafe 245
Du Pont	DBE
Ecolink	Safe Strip
Oakite Products	Inproclean 3800

Table of Vendor Recommended Resin Removal From Steels

Vendor Recommended Resin removal from steels		
CompanyName	ProductName	ClassificationDescription
Accurate Manufactured Products	Safety Layout Blue Remover	Terpene
AG Environmental Products	Canola Gold CE110	Ester
AG Environmental Products	Soy Clear 1500	Ester
AGA Chemical	AK 225	HCFC
Albemarle Corporation	Abzol Cleaners	Organic
Alconox Inc	Alconox	Powder Detergent
Alconox Inc	Detergent 8	Alkaline Aqueous
Alconox Inc	Det-O-Jet	Alkaline Aqueous
Alconox Inc	Luminox	Neutral Aqueous
Ausimont USA Inc	Perfluorosolv PFS 1	HCFC
AW Chesterton	278 Super Solv	Petroleum Distillate
Bio Chem Systems	Bio T 200 A	Terpene
Bio Chem Systems	Bio T Foam Plus	Terpene

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Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
Bio Chem Systems	Solsafe 245	Petroleum Distillate
Blue Wave Ultrasonics Inc	25 I Detergent Concentrate	Neutral Aqueous
Blue Wave Ultrasonics Inc	Dirl-Lum 603 Powdered Detergent	Powder Detergent-Alkaline
Brulin Corporation	Brulin 1696 PNC	Neutral Aqueous
Brulin Corporation	Compliance	Caustic
Buckeye International	Shopmaster	Alkaline Aqueous
Buckeye International	Shopmaster FF	Alkaline Aqueous
Buckeye International	Shopmaster LPH	Alkaline Aqueous
Bush Boake Allen Inc	BBA Solvent K312	Terpene
Chem Tech	CT 1 Multipurpose Cleaner	Alkaline Aqueous
Chem Tech Solutions	1050 Magic	Organic
Chem Tech Solutions	Westech CT 1550	Terpene
Chemtronics	Super Bio Wash	Semi-Aqueous
Church & Dwight	Armaklean E 2001	Alkaline Aqueous
Church & Dwight	Armaklean E 2002	Alkaline Aqueous
Church & Dwight	Armaklean M Aero	Alkaline Aqueous
CSA Inc	Bio Safe 1024	Hydrocarbon
Drummond American	Keynote	Neutral Aqueous
Du Pont	DBE	Ester
Du Pont	DBE 3	Ester
Du Pont	DBE 4	Ester
Dynamold Solvents Inc	DS 104	Petroleum Distillate
Dynamold Solvents Inc	DS 108	Petroleum Distillate
Dynamold Solvents Inc	DS 801	Alkaline Aqueous
Eastern Color & Chemical Company	Ecobrite Cleaner AK	Alkaline Aqueous
Ecolink	2005	HCFC
Ecolink	Safe Strip	Organic
Ecolink	VG 151	Terpene
Ecolink	Vortex	Semi-Aqueous
Exxon Chemical	Aromatic 100 Solvent	Organic
Fine Organic Corporation	FO 2085 M	Alkaline Aqueous
Finger Lakes Chemicals	1-1-02	Terpene
Finger Lakes Chemicals	Impress Wash	Semi-Aqueous

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Finger Lakes Chemicals	Resineater	Terpene
Finger Lakes Chemicals	Safer Stuff	Terpene
Fisher Scientific	Isopropanol	Alcohol
Florida Chemical Company	Citrus Burst 7	Terpene
Florida Chemical Company	D-Limonene	Terpene
Frederick Gumm Chemical	Lacq off A/B	Alkaline Aqueous
Gemtek Products	EZ Solv	Organic
General Chemical Corporation	Aluminex 5761	Caustic
General Chemical Corporation	Aquaclean 4784	Caustic
Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash	Alkaline Aqueous
Inland Technologies Inc	Citrasafe	Terpene
Inland Technologies Inc	Safety Prep	Terpene
Innovative Organics Inc	Amber Clean SC 11	Neutral Aqueous
International Products Corporation	Surface Cleanse 930	Neutral Aqueous
ISP Technologies	N Methyl Pyrrolidone	Organic
ISP Technologies	Ship Shape Resin Cleaner	Organic
Kyzen Corporation	Aquanox XIN	Alcohol-Semi Aqueous
Kyzen Corporation	Ionox FCR	Semi-Aqueous
Kyzen Corporation	Ionox HC	Alcohol
Kyzen Corporation	Ionox HC 2	Alcohol
Kyzen Corporation	Ionox I 3330	Alcohol-Semi Aqueous
Kyzen Corporation	Lonox L5003	Alkaline Aqueous
Kyzen Corporation	Lonox L5005	Alkaline Aqueous
Kyzen Corporation	Misprint Stencil Remover	Hydrocarbon
LPS Laboratories	LPS Precision Clean	Alkaline Aqueous
Magnaflux	Daraclean 200	Alkaline Aqueous
Magnaflux	Daraclean 203	Caustic

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Magnaflux	Daraclean 211	Alkaline Aqueous
Magnaflux	Daraclean 212	Neutral Aqueous
Magnaflux	Daraclean 232	Alkaline Aqueous
Magnaflux	Daraclean 235	Neutral Aqueous
Magnaflux	Daraclean 236	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
Metabolix Inc	Metabolix E3HB	Ester
Mirachem Corporation	Mirachem 250	Acidic Aqueous
Mulder Hardenberg	RST 5	Organic
National Diagnostic	Histo Clear	Terpene
National Diagnostic	Opti Clear	Terpene
Oakite Products	Citradet	Semi-Aqueous
Oakite Products	Inproclean 4000 T	Terpene-Organic
Occidental Chemical Corporation	OXSOL 100	Organic
Pentone Corporation	Citrikleen XPC	Terpene-Semi-Aqueous
Phase III Inc	California Parts Washer Solution	Neutral Aqueous
Pride International Inc	Citrisolv Plus	Semi-Aqueous
Savogran	HD-34 Cleaner Degreaser	Semi-Aqueous
Savogran	Safety-Solve	Organic
Simple Green	All Purpose Cleaner/ Degreaser	Alkaline Aqueous
Simple Green	Crystal Simple Green Industrial Cleaner	Alkaline Aqueous
Simple Green	Simple Green D	Alkaline Aqueous
Smart Sonic	440 R SMT Detergent	Alkaline Aqueous
Solutia Inc	Santosol DME	Ester
Solvent Kleene Inc	D Greeze 500 LO	Organic

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System One Technologies	QSOL 200	Organic
System One Technologies	QSOL 220	Organic
Tarksol Inc	SR 225	Terpene
Tarksol Inc	Tarksol Biosoy 60	Alcohol-Organic
Tarksol Inc	Tarksol HTF 60	Terpene
Tarksol Inc	Tarksol HTF 85 B	Alcohol-Organic
Tarksol Inc	Tarksol HTF 90	Alcohol-Organic
Tarksol Inc	Tarksol HTF-50	Semi-Aqueous
Tarksol Inc	Tarksol NPB	Organic
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
Today & Beyond	Beyond 2009	Organic
Tower Products Inc	Tower 270 Cleaner Concentrate	Alkaline Aqueous
Twin Rivers Corp	Methyl Ester 1618	Ester
US Polychem Corporation	87 RB	Hydrocarbon
US Polychem Corporation	Hydropurge 36	Alkaline Aqueous
US Polychem Corporation	Hydropurge HPL 790	Caustic
US Polychem Corporation	Polychem 2000 P	Alkaline Aqueous
US Polychem Corporation	Polychem A 2000 XS	Alkaline Aqueous
US Polychem Corporation	Polychem Acra Strip 600	Semi-Aqueous
US Polychem Corporation	Polychem Aquaspat Ti	Neutral 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

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US Polychem Corporation	Polychem PW 147	Alkaline Aqueous
US Polychem Corporation	Polychem QS 85 LO	Terpene-Petroleum Distillate
US Polychem Corporation	Polychem RCC 25	Terpene-Petroleum Distillate
US Polychem Corporation	Polychem Ultra CR	Alkaline Aqueous
US Polychem Corporation	Polyspray Jet 790 C	Caustic
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 98023	Caustic
Valtech Corporation	Valtron SP 2200	Alkaline Aqueous
Valtech Corporation	Valtron SP 2201	Alkaline Aqueous
Valtech Corporation	Valtron SP 2250 2LF	Alkaline Aqueous
Valtech Corporation	Valtron SP 2500	Alkaline Aqueous
Vertec BioSolvents	Take Off Green	Organic
Vertec BioSolvents	VertecBio Gold 2	Organic
WM Barr & Company	Citristrip	Terpene-Semi-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.