CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2002
DateRun:	04/30/2002
Experimenters:	Jason Marshall
ClientType:	Plastic Manufacturer
ProjectNumber:	Project #1
Substrates:	Aluminum, Stainless Steel, Steel
PartType:	Coupon
Contaminants:	Resins/Rosins, Phthalates
Cleaning Methods:	Low Pressure Spray
Analytical Methods:	Visual
Purpose:	To generate a list of alternatives for removing resin and plasticizer from mixing vessels
Experimental Procedure:	Using SSL's Simple Solutions database, two lists of products were generated based on client input. The first list contains products that have been evaluated in the lab for resin or phthalates. The equipment and substrates may not be the same as the client requested materials. The second list contains Vendor suggested products. Nine parameters were entered into the search. Products with higher numbers met more criteria.
Results:	Table 1. Lab Evaluated Products

Company Name:	Product Name:	Classification	Substrate	Trials
Bio Chem Systems	Bio T 300 B	Semi-Aqueous	Stainless Steel	2
Bio Chem Systems	Bio T 300 B	Terpene	Stainless Steel	2
Bio Chem Systems	Bio T Max	Semi-Aqueous	Aluminum	5
Bio Chem Systems	Bio T Max	Semi-Aqueous	Stainless Steel	2
Bio Chem Systems	Bio T Max	Terpene	Aluminum	5
Bio Chem Systems	Bio T Max	Terpene	Stainless Steel	2
Brulin Corporation	Compliance	Caustic	Aluminum	2
Calgon Corporation	Geo Guard 2215	Alkaline Aqueous	Aluminum	1
Chrisal USA, Inc.	Super CMF 240	Alkaline Aqueous	Stainless Steel	1
Fine Organic Corporation	FO 2085 M	Alkaline Aqueous	Aluminum	1
Finger Lakes Chemicals	Resineater	Terpene	Stainless Steel	1
Gemtek Products	SC 1000	Alkaline Aqueous	Stainless Steel	1
ISP Technologies	Ship Shape Resin Cleaner	Organic	Stainless Steel	1
Kyzen Corporation	Ionox FCR	Semi-Aqueous	Aluminum	1
Loctite Corporation	7360	Ester	Aluminum	1
Oakite Products	Inproclean 3800	Alkaline Aqueous	Stainless Steel	1
Oakite Products	Inproclean 4000 T	Organic	Aluminum	1
Oakite Products	Inproclean 4000 T	Terpene	Aluminum	1
		Organic		1

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Solvent Kleene, Inc.	D-Greeze 500 LO		Stainless Steel	
Tarksol, Inc.	Tarksol HTF-50	Semi-Aqueous	Aluminum	2
Tarksol, Inc.	Tarksol HTF-50	Semi-Aqueous	Stainless Steel	1
U.S. Polychem Corp.	Polychem A 2000 XS	Alkaline Aqueous	Stainless Steel	1
W.R. Grace & Co.	Daraclean 232	Alkaline Aqueous	Stainless Steel	1
W.R. Grace & Co.	Daraclean 282	Alkaline Aqueous	Stainless Steel	1
Warren Chemical Co	Sea Wash 8	Neutral Aqueous	Aluminum	2
Warren Chemical Co	Sea Wash 8 New	Neutral Aqueous	Aluminum	2

Vendor Recommended Products for Resin, Spray, Steel, Stainless Steel and Aluminum

CompanyName	ProductName	Classification	Criteria Met (6 Max)
AGA Chemical	AK 225	HCFC	3
Albemarle Corp	Abzol Cleaners	Organic	6
Alconox, Inc.	Detergent 8	Alkaline Aqueous	6
Alconox, Inc.	Det-O-Jet	Alkaline Aqueous	2
Alconox, Inc.	Luminox	Neutral Aqueous	6
Ausimont USA Inc	Perfluorosolv PFS 1	HCFC	3
Bio Chem Systems	Bio T Max	Semi-Aqueous	3
Bio Chem Systems	Bio T Max	Terpene	3
Bio Chem Systems	SOLSAFE 245	Petroleum Distillate	3
Brulin Corporation	Brulin 1696 PNC	Neutral Aqueous	3
Buckeye International	Shopmaster	Alkaline Aqueous	6
Buckeye International	Shopmaster FF	Alkaline Aqueous	4
Buckeye International	Shopmaster LPH	Alkaline Aqueous	6
Church & Dwight	Armaklean E 2001	Alkaline Aqueous	3
Church & Dwight	Armaklean E 2002	Alkaline Aqueous	3
Church & Dwight	Armaklean M Aero	Alkaline Aqueous	3
CSA Inc	Bio Safe 1024	Hydrocarbon	2
Eastern Color and Chemical Co	Ecobrite Cleaner AK	Alkaline Aqueous	1
Ecolink	Safe Strip	Organic	3
Ecolink	Vortex	Semi-Aqueous	3
Fine Organic Corporation	FO 2085 M	Alkaline Aqueous	3
Frederick Gumm Chemical	Lacq off A/B	Alkaline Aqueous	2

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General Chemical Corporation	Aluminex 5761	Caustic	3
General Chemical Corporation	Aquaclean 4784	Caustic	6
Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash	Alkaline Aqueous	6
Inland Technologies Inc	Citrasafe	Terpene	3
Innovative Organics Inc	Amber Clean SC 11	Neutral Aqueous	3
ISP Technologies	Ship Shape Resin Cleaner	Organic	6
Kyzen Corporation	Aquanox XIN	Alcohol	3
Kyzen Corporation	Aquanox XIN	Neutral Aqueous	3
Kyzen Corporation	Ionox HC	Alcohol	2
Kyzen Corporation	Ionox HC 2	Alcohol	3
Kyzen Corporation	Lonox L5003	Alkaline Aqueous	3
Kyzen Corporation	Lonox L5005	Alkaline Aqueous	3
Kyzen Corporation	Misprint Stencil Remover	Hydrocarbon	3
LPS Laboratories	LPS Precision Clean	Alkaline Aqueous	3
Mirachem Corporation	Mirachem 250	Acidic Aqueous	3
Pride International Inc	Citrisolv Plus	Semi-Aqueous	3
Savogran	HD-34 Cleaner Degreaser	Semi-Aqueous	3
Simple Green	Crystal Simple Green Industrial Cleaner	Alkaline Aqueous	4
Simple Green	Simple GreenD	Alkaline Aqueous	4
Solvent Kleene, Inc.	D-Greeze 500 LO	Organic	3
Today & Beyond	Beyond-2001	Alkaline Aqueous	6
Today & Beyond	Beyond-2002	Alkaline Aqueous	6
Today & Beyond	Beyond-2003	Alkaline Aqueous	6
Today & Beyond	Beyond-2004	Alkaline Aqueous	6
Today & Beyond	Beyond-2005	Alkaline Aqueous	6
Today & Beyond	Beyond-2006	Alkaline Aqueous	6
Today & Beyond	Beyond-2007	Alcohol	6

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Today & Beyond	Beyond-2009	Organic	2
Tower Products, Inc	Tower 270 Cleaner Concentrate	Alkaline Aqueous	4
U.S. Polychem Corp.	Hydropurge 36	Alkaline Aqueous	6
U.S. Polychem Corp.	Polychem 2000 P	Alkaline Aqueous	3
U.S. Polychem Corp.	Polychem A 2000 XS	Alkaline Aqueous	3
U.S. Polychem Corp.	Polychem Acra Strip 600	Semi-Aqueous	3
U.S. Polychem Corp.	Polychem Aquaspat Ti	Neutral Aqueous	3
U.S. Polychem Corp.	Polychem DEOX 007	Alkaline Aqueous	3
U.S. Polychem Corp.	Polychem Hydropurge 21	Alkaline Aqueous	6
U.S. Polychem Corp.	Polychem Hydropurge 36 XS	Alkaline Aqueous	3
U.S. Polychem Corp.	Polychem Hydropurge XS-790	Alkaline Aqueous	6
U.S. Polychem Corp.	Polychem PW-147	Alkaline Aqueous	3
U.S. Polychem Corp.	Polychem QS-85 LO	Petroleum Distillate	3
U.S. Polychem Corp.	Polychem QS-85 LO	Terpene	3
U.S. Polychem Corp.	Polychem RCC-25	Petroleum Distillate	3
U.S. Polychem Corp.	Polychem RCC-25	Terpene	3
U.S. Polychem Corp.	Polychem Ultra-CR	Alkaline Aqueous	3
U.S. Polychem Corp.	Polyspray Jet 790 C	Caustic	4
U.S. Polychem Corp.	Polyspray Jet 790 P	Alkaline Aqueous	6
U.S. Polychem Corp.	Polyspray Jet 790 XS	Alkaline Aqueous	6
U.S. Polychem Corp.	Polyspray Jet ST-21	Alkaline Aqueous	6
Valtech Corporation	Valtron SP 2200	Alkaline Aqueous	1
Valtech Corporation	Valtron SP 2201	Alkaline Aqueous	1
Valtech Corporation	Valtron SP 2250-2LF	Alkaline Aqueous	4
Valtech Corporation	Valtron SP 2500	Alkaline Aqueous	2
W.R. Grace & Co.	Daraclean 200	Alkaline Aqueous	6
W.R. Grace & Co.	Daraclean 203	Caustic	4
W.R. Grace & Co.	Daraclean 211	Alkaline Aqueous	3
W.R. Grace & Co.	Daraclean 232	Alkaline Aqueous	3
W.R. Grace & Co.	Daraclean 235	Neutral Aqueous	6
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W.R. Grace & Co.	Daraclean 236	Neutral Aqueous	
W.R. Grace & Co.	Daraclean 257	Alkaline Aqueous	6
W.R. Grace & Co.	Daraclean 282	Alkaline Aqueous	6
W.R. Grace & Co.	Daraclean 282 GF	Alkaline Aqueous	6
W.R. Grace & Co.	Daraclean 283	Alkaline Aqueous	4

Summary:

Conclusion: Cleaning projects vary from case-to-case. To obtain more detailed information about any of the products listed, contact the lab at (978)934-3133.