CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2000
DateRun:	08/08/2000
Experimenters:	Jason Marshall
ClientType:	State Agency
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Inks
Cleaning Methods:	Immersion/Soak
Analytical Methods:	
Purpose:	Information request
Experimental Procedure:	SUBSTRATE MATERIAL: Stainless steel REQUEST: A company that screen prints with solvent inks uses MEK to clean the equipment in a cold immersion tank or by hand depending on the size of the part to be cleaned. They are desiring minimal change to the process, but a substitute for MEK.
Results:	RESPONSE: Using the lab's Effective Test Conditions and Industrial Cleaning Survey Directory databases, the query yielded the following information. Three tables of results were generated, Table 1 from actual client testing, Table 2 from generic laboratory testing, and Table 3 from vendor supplied information without SCL evaluation.

Table 1. Effective Test Condition Results

SCL #	Substrate	Process	Manufacturer	Product	Classification
97-538-02-2	SS	MANUAL	T-SQUARE	HTF 60	Semi-Aqueous Terpene
97-538-02-2	SS	MANUAL	T-SQUARE	HTF 50	Semi-Aqueous Terpene
98-559-01-1	AL-OXIDE	IMMERSION	US POLYCHEM	DE-OX 007	Alkaline Aqueous
98-559-01-1	AL-OXIDE	IMMERSION	Oakite Products	Inproclean 3800	Alkaline Aqueous
98-559-03-2	AL-OXIDE	ULTRASONICS	Oakite Products	Inproclean 3800	Alkaline Aqueous
96-423-02-2	PLASTIC	IMMERSION	MACDERMID	ND 17	Alkaline Aqueous
96-423-02-2	PLASTIC	IMMERSION	MIRACHEM	MIRACHEM 500	Alkaline Aqueous
98-559-04-2	PLASTIC	IMMERSION	Oakite Products	Inproclean 3800	Alkaline Aqueous
98-559-04-2	PLASTIC	IMMERSION	CHRISAL USA	SUPER CMF 240	Alkaline Aqueous
98-571-02-2	AL	MANUAL	AG ENVIRONMENTAL	SOY GOLD 1000	Soy Methyl Ester
98-571-02-2	AL	MANUAL	Oakite Products	Inproclean 4000 T Semi-Aqueous Terpene	
98-571-02-2	AL	MANUAL	BUCKEYE	SHOPMASTER	Alkaline Aqueous
98-571-03-2	AL	MANUAL	T-SQUARE	HTF 50	Semi-Aqueous Terpene
98-571-03-2	AL	MANUAL	Oakite Products	Inproclean 4000 T	Semi-Aqueous Terpene
98-682-01-2	SS	MANUAL	EXXON	AROMATIC 100	SOLVENT
98-682-01-2	SS	MANUAL	AG ENVIRONMENTAL	SOY GOLD 1000	Soy Methyl Ester

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98-682-01-2	SS	MANUAL	ENVIROSOLUTIONS	BIO-T MAX	Semi-Aqueous Terpene
98-682-01-2	SS	MANUAL	FINGER LAKES	1/1/02	
98-682-01-2	SS	MANUAL	INLAND TECHNOLOGY	EP 921	
98-682-01-2	SS	MANUAL	T-SQUARE	HTF 60	Semi-Aqueous Terpene
98-682-03-4	SS	MANUAL	ENVIROSOLUTIONS	BIO-T MAX	Semi-Aqueous Terpene
00-7123-01-2	PLASTIC	IMMERSION	Envirosolutions, Inc.	BIO T MAX	Semi-Aqueous Terpene
00-7123-01-2	PLASTIC	IMMERSION	Oakite Products	Inproclean 4000 T	Semi-Aqueous Terpene
00-7123-01-2	PLASTIC	IMMERSION	Valtech Corporation	Valtron SP2250-2LF	Alkaline Aqueous
00-7123-07-4	SS	IMMERSION	SWR CORP	SWR ONE	Alkaline Aqueous
00-7123-08-4	SS	WIPE	OAKITE PRODUCTS	Inproclean 4000 T	Semi-Aqueous Terpene
00-7123-08-4	SS	WIPE	Envirosolutions, Inc.	BIO T MAX	Semi-Aqueous Terpene
00-7123-07-4	SS	WIPE	SWR CORP	SWR ONE	Alkaline Aqueous

Table 2. Non-Client Testing Results

SCL Trial Number	Company Name	Product Name	Classification	Efficiency
00-SS-IK-IS-4-3	Warren Chemical Co	Sea Wash Dispersant	Alkaline Aqueous	88
00-CU-IK-IS-2-12	MacDermid	ND LF Supreme	Alkaline Aqueous	105
00-CU-IK-IS-2-12	Chem-Tech Int	Green Thunder	Alkaline Aqueous	102
00-SS-IK-IS-4-14	Warren Chemical Co	Sea Wash Dispersant	Alkaline Aqueous	99
00-SS-IK-IS-4-15	Calgon Corporation	Geo-Guard 4017	Alkaline Aqueous	100
00-SS-IK-IS-1-11	Master Chemical Corp	Trim Rinse 100	Alkaline Aqueous	92
00-SS-IK-IS-3-37	Kyzen Corp	Misprint Adhesive Remover	Cyclic hyrdocarbon	104
CAS # cleaned:	67-63-0, 8004-87-3,	64-17-5, 123-86-4, 71-36-3, 9004-70-0		
00-SS-IK-IS-3-41	US Polychem	Polyspray Jet 790 C	Alkaline Aqueous	93
CAS # cleaned:	8004-87-3			
00-IK-BR-IM-4-49	Finger Lakes	Resineater	terpene	88
CAS # cleaned:	64-17-5, 67-63-0, 8004-87-3, 123-86-4, 71-36-3, 9004-70-0			

Table 3. Industrial Cleaning Survey: Directory of Vendors Results

Name	Product Name
AJ Associates	Dynadet
Albemarle Corp	Abzol Cleaners
Alconox, Inc.	Det-O-Jet
AW Chesterton	278 Super Solv

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Blue Wave Ultrasonics	Dirt-Lum 603 Powdered Detergent
Blue Wave Ultrasonics	Dirt-Strip 606 Powdered Detergent
Broco Products Inc.	Broco OC-HDD
Brulin Corporation	Brulin 1696 PNC
Buckeye International	Shopmaster
Buckeye International	Shopmaster FF
Buckeye International	Shopmaster LPH
By*Pas & Star Cleaning	By*Pas #1500
By*Pas & Star Cleaning	Star Cleaning Miracle # 50
Calgon Corporation	SC 844
Calgon Corporation	SMS 206 K
Calgon Corporation	SMS 9706
Chrisal USA, Inc.	Super CMF 240
Drummond American	Keynote
Dynamold Solvents, Inc.	DS-104
Dynamold Solvents, Inc.	DS-108
Dynamold Solvents, Inc.	DS-801
Ecolink	Pinnacle
Envirosolutions, Inc.	Bio T Max
Envirosolutions, Inc.	Bio T V-50
Envirosolutions, Inc.	Green Stuff (6325)
Envirosolutions, Inc.	Neutral Green (8020)
Envirosolutions, Inc.	SOLSAFE 245
Gemtek Products	SC 1000
Gemtek Products	SC Supersolve
Hazwell International	Biosolve
Hotsy Cleaning Systems	Hotsy Tub & Pressure Wash
International Products	Micro 90
Kyzen Corporation	Metalnox 6304
New Pig Corporation	New Pig Degreaser
Northern Products, Inc.	Necco Super Cleaner
Oakite Products	Inproclean 3800
Oakite Products	Inproclean 4000 T
Purac America, Inc.	Purasolv Els
Safe Science	All Purpose (Industrial)
Safe Science	Concrete/Graffiti (Industrial)
Safe Science	Engine Degreaser (Industrial)
Savogran	HD-34 Cleaner Degreaser
Savogran	Safety-Solve
Savogran	SI #3 Coating Remover
Savogran	SI #8 Coating Remover
Simple Green	All Purpose Cleaner/ Degreaser
Simple Green	Industrial Strength Cleaner

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Simple Green	Simple GreenD Disinfectant
Sky Products Co., Inc.	Cleaner #10
Solvent Kleene, Inc.	D-Greeze 1000
Solvent Kleene, Inc.	D-Greeze 500 LO
Soy Envrinonmental	Soy Clean
System One Tech	QSOL-100
System One Tech	QSOL-110
System One Tech	QSOL-200
System One Tech	QSOL-220
Tarksol, Inc.	Tarksol Biosoy 60
Tarksol, Inc.	Tarksol HTF-90
Tarksol, Inc.	Tarksol NPB
Tarksol, Inc.	Tarksol Polystrip
Today & Beyond	Beyond-2001
Today & Beyond	Beyond-2002
Today & Beyond	Beyond-2003
Today & Beyond	Beyond-2004
Today & Beyond	Beyond-2005
Today & Beyond	Beyond-2006
Today & Beyond	Beyond-2007
Tower Products, Inc	Tower 270 Cleaner Conc
U.S. Polychem Corp.	Hydropurge 36
U.S. Polychem Corp.	Polychem 2000 P
U.S. Polychem Corp.	Polychem A 2000 XS
U.S. Polychem Corp.	Polychem Acra Strip 600
U.S. Polychem Corp.	Polychem Aquaspat Ti
U.S. Polychem Corp.	Polychem DE-144
U.S. Polychem Corp.	Polychem DEOX - 007
U.S. Polychem Corp.	Polychem Hydropurge 21
U.S. Polychem Corp.	Polychem Hydropurge 36 XS
U.S. Polychem Corp.	Polychem Hydropurge XS-790
U.S. Polychem Corp.	Polychem PW-147
U.S. Polychem Corp.	Polychem QS-85 LO
U.S. Polychem Corp.	Polychem RCC-25
U.S. Polychem Corp.	Polyspray Jet 790 C
U.S. Polychem Corp.	Polyspray Jet 790 P
U.S. Polychem Corp.	Polyspray Jet 790 XS
U.S. Polychem Corp.	Polyspray Jet ST-21
Valtech Corporation	Valtron SP 2201
Valtech Corporation	Valtron SP 2270
Valtech Corporation	Valtron SP 2700-KB
W.R. Grace & Co.	Daraclean 203
W.R. Grace & Co.	Daraclean 212
W.R. Grace & Co.	Daraclean 235
W.R. Grace & Co.	Daraclean 236
W.R. Grace & Co.	Daraclean 238
W.R. Grace & Co.	Daraclean 257
W.R. Grace & Co.	Daraclean 282
W.R. Grace & Co.	Daraclean 282 GF
W.R. Grace & Co.	Daraclean 283
Warren Chemical Co	Sea-Wash Cleaner
Watson Technical	Drain Away
Watson Technical	Watson Formula 7000
Westford Chemical Corp	Biosolve

Summary:

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Conclusion: Cleaning projects vary from case-to-case. To obtain more detailed information about any of the listed trials, have the SCL # ready when contacting the lab at (978)934-3133.