

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2000  
 DateRun: 07/05/2000  
 Experimenters: Jason Marshall  
 ClientType: Electrical Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Stainless Steel  
 PartType: Coupon  
 Contaminants: Inks, Paints  
 Cleaning Methods:  
 Analytical Methods:  
 Purpose: Information request

Experimental Procedure: SUBSTRATE MATERIAL: Stainless steel coating equipment  
 REQUEST: Looking for a list potential replacement cleaners for methylene chloride. Would like to be able to distill or recycle cleaning solution reducing the disposal costs.

Results: Using the laboratories database of effective testing, a list of products that have proven to remove paint/ink was generated and are listed in Table 1. Table 2 was generated from vendor supplied information.

Table 1. General Test Results

SCL #	Substrate	Cont	Process	Manufacturer	Product	Classification
97-538-02-2	SS	INK	MANUAL	T-SQUARE	HTF 60	S-A Terpene
97-538-02-2	SS	INK	MANUAL	T-SQUARE	HTF 50	S-A Terpene
98-559-01-1	AL-OXIDE	INK	IMMERSION	US POLYCHEM	DE-OX 007	Alkaline
98-559-01-1	AL-OXIDE	PAINT	IMMERSION	US POLYCHEM	DE-OX 007	Alkaline
98-559-01-1	AL-OXIDE	INK	IMMERSION	Oakite Products	INPROCLEAN 3800	Alkaline
98-559-01-1	AL-OXIDE	PAINT	IMMERSION	Oakite Products	INPROCLEAN 3800	Alkaline
98-559-03-2	AL-OXIDE	INK	ULTRASONICS	Oakite Products	INPROCLEAN 3800	Alkaline
98-559-03-2	AL-OXIDE	PAINT	ULTRASONICS	Oakite Products	INPROCLEAN 3800	Alkaline
96-423-02-2	PLASTIC	INK	IMMERSION	MACDERMID	ND 17	Alkaline
96-423-02-2	PLASTIC	INK	IMMERSION	MIRACHEM	MIRACHEM 500	Alkaline
98-559-04-2	PLASTIC	INK	IMMERSION	Oakite Products	INPROCLEAN 3800	Alkaline
98-559-04-2	PLASTIC	PAINT	IMMERSION	Oakite Products	INPROCLEAN 3800	Alkaline
98-559-04-2	PLASTIC	INK	IMMERSION	CHRISAL USA	SUPER CMF 240	Alkaline
98-559-04-2	PLASTIC	PAINT	IMMERSION	CHRISAL USA	SUPER CMF 240	Alkaline
98-559-05-2	ZrO2	PAINT	IMMERSION	Oakite Products	INPROCLEAN 4000 T	S-A Terpene
98-571-02-2	AL	INK	MANUAL	AG ENVIRONMENTAL	SOY GOLD 1000	Soy Methyl Ester
98-571-02-2	AL	INK	MANUAL	Oakite Products	INPROCLEAN 4000 T	S-A Terpene
98-571-02-2	AL	INK	MANUAL	BUCKEYE	SHOPMASTER	Alkaline
98-571-03-2	AL	INK	MANUAL	T-SQUARE	HTF 50	S-A Terpene
98-571-03-2	AL	INK	MANUAL	Oakite Products	INPROCLEAN 4000 T	S-A Terpene
98-676-01-2	AL	PAINT	IMMERSION	SOLVENT KLEENE	D-GREEZE 500	Hydrocarbon Solvent
98-676-01-2	AL	PAINT	IMMERSION	SOLVENT KLEENE	D-GREEZE 500	Hydrocarbon Solvent
98-676-02-4	AL	PAINT	IMMERSION	CHRISAL USA		Alkaline

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					SUPER CMF 240	
98-676-02-4	AL	PAINT	IMMERSION	AG ENVIRONMENTAL	SOY GOLD 1000	Soy Methyl Ester
98-676-07-2	AL	PAINT	IMMERSION	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
98-682-01-2	SS	INK	MANUAL	EXXON	AROMATIC 100	SOLVENT
98-682-01-2	SS	INK	MANUAL	AG ENVIRONMENTAL	SOY GOLD 1000	Soy Methyl Ester
98-682-01-2	SS	INK	MANUAL	ENVIROSOLUTIONS	BIO-T MAX	S-A Terpene
98-682-01-2	SS	INK	MANUAL	FINGER LAKES	1/1/02	Terpene
98-682-01-2	SS	INK	MANUAL	INLAND TECHNOLOGIES	EP 921	Terpene
98-682-01-2	SS	INK	MANUAL	T-SQUARE	HTF 60	S-A Terpene
98-676-08-2	AL	PAINT	SPRAY	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
98-676-08-2	AL	PAINT	SPRAY	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
98-676-10-4	AL	PAINT	IMMERSION	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
98-676-10-4	AL	PAINT	IMMERSION	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
98-682-03-4	SS	INK	MANUAL	ENVIROSOLUTIONS	BIO-T MAX	S-A Terpene
98-676-09-4	AL	PAINT	SPRAY	AG ENVIRONMENTAL	SOY GOLD 2000	Soy Methyl Ester
00-7123-01-2	PLASTIC	INK	IMMERSION	Envirosolutions, Inc.	BIO T MAX	S-A
00-7123-01-2	PLASTIC	INK	IMMERSION	Oakite Products	Inproclean 4000 T	S-A Terpene
00-7123-01-2	PLASTIC	INK	IMMERSION	Valtech Corporation	Valtron SP 2250-2LF	Alkaline
00-7123-07-4	SS	INK	IMMERSION	SWR CORP	SWR ONE	Alkaline
00-7123-08-4	SS	INK	WIPE	Oakite Products	Inproclean 4000 T S-A	Terpene
00-7123-08-4	SS	INK	WIPE	Envirosolutions, Inc.	BIO T MAX	S-A
00-7123-07-4	SS	INK	WIPE	SWR CORP	SWR ONE	Alkaline

Table 2. Vendor Suggested Products for Paint/Ink Cleaning

Company Name	Product Name
AW Chesterton	278 Super Solv
Buckeye International	Shopmaster
Buckeye International	Shopmaster LPH
Dynamold Solvents, Inc.	DS-801
Envirosolutions, Inc.	SOLSAFE 245
Gemtek Products	SC Supersolve
Hazwell International	Biosolve
Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash
New Pig Corporation	New Pig Degreaser
Oakite Products	Inproclean 4000 T
Purac America, Inc.	Purasolv Els
Safe Science	Safe Science Concrete/ Graffiti (Industrial)
Safe Science	Safe Science Engine Degreaser (Industrial)
Savogran	HD-34 Cleaner Degreaser

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Savogran	Safety-Solve
Savogran	SI #3 Coating Remover
Soy Environmental	Soy Clean
Tarksol, Inc.	Tarksol NPB
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-2008
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 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 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
Warren Chemical Co	Sea-Wash Cleaner
Westford Chemical Co	Biosolve

The following Table lists 6 suggested products to be evaluated.

Table 3. Suggested Replacements

Company Name	Product Name
Envirosolutions, Inc.	Bio T Max
Oakite Products	Inproclean 3800
Oakite Products	Inproclean 4000 T
Savogran	HD-34 Cleaner Degreaser
Solvent Kleene, Inc.	D-Greeze 500 LO
U.S. Polychem Corp.	Polyspray Jet 790 P

Summary:

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.