CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 05/06/2003

Experimenters: Jason Marshall

ClientType: Chemical Company

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Coatings, Resins/Rosins, Plastic

Cleaning Methods: Manual Wipe

Analytical Methods:

Purpose: Information request.

Experimental Procedure:
Please search database for a substitution recommendation for our current process:
1. Aluminum tooling is the substrate.
2. Material to clean is residue from molding polycarbonate and polystyrene.
3. Process is manual. Tooling can be large.
4. Currently cleaned with Doall ink remover, which is Toluene and acetone.

Results:
RESPONSE: The Massachusetts Toxics Use Reduction Institute (TURI) has made the results of the tests conducted at the Institute's Surface Solutions Laboratory into a searchable database format. This should make alternative cleaner selection faster and easier. Here are the results of your query, based on the information supplied.

The first table lists products that have been tested at SSL under similar conditions.
Table 1. Contaminant Cleaning

CompanyName	ProductName	ClassificationDescription	ContaminantDescription
Finger Lakes Chemicals	Resineater	Terpene	Coating - Styrene Butidiene

The next two table are products that are suggested based on vendor supplied information. Table 3 contains vendor recommended products that were identified for manual wipe cleaning on aluminum substrates. The Value listed in the table is an environmental ranking based on SSL's indicators: VOC content, Global Warming Potentials, Ozone Depletion Potentials, HMIS/NFPR ratings and pH. Scores are based on a maximum of 50 points. The higher scores implies a potentially safer product.

Table 2. Parameters Used for Vendor Suggested Products

Vendor Suggested Products			
ContaminantDescription	EquipmentDescription	SubstrateDescription	
Resins/Rosins	Manual Wipe	Aluminum	
Safety Value	CompanyName	ProductName	ClassificationDescription
49	Innovative Organics Inc	Amber Clean SC 11	Neutral Aqueous
48	Buckeye International	Shopmaster LPH	Alkaline Aqueous
48	Tarksol Inc	Tarksol HTF 85 B	Alcohol-Organic
47	AG Environmental Products	Canola Gold CE110	Ester
47	AG Environmental Products	Soy Clear 1500	Ester
47	Kyzen Corporation	Misprint Stencil Remover	Hydrocarbon
47	Phase III Ink	California Parts Washer Solution	Neutral Aqueous
47	Savogran	HD-34 Cleaner Degreaser	Semi-Aqueous
47	US Polychem Corporation	Polychem 2000 P	Alkaline Aqueous
46	International Products Corporation	Surface Cleanse 930	Neutral Aqueous
46	Today & Beyond	Beyond 2007	Alcohol
46	US Polychem Corporation	Polyspray Jet 790 P	Alkaline Aqueous

CLEANING LABORATORY EVALUATION SUMMARY

46	Vertec BioSolvents	Take Off Green	Organic
45	Buckeye International	Shopmaster	Alkaline Aqueous
45	Magnaflux	Daraclean 235	Neutral Aqueous
45	Twin Rivers Corp	Methyl Ester 1618	Ester
45	US Polychem Corporation	Polychem A 2000 XS	Alkaline Aqueous
45	US Polychem Corporation	Polyspray Jet 790 XS	Alkaline Aqueous
44	Magnaflux	Daraclean 211	Alkaline Aqueous
44	US Polychem Corporation	Polychem DEOX 007	Alkaline Aqueous
44	US Polychem Corporation	Polychem Ultra CR	Alkaline Aqueous
43	Alconox Inc	Luminox	Neutral Aqueous
43	Drummond American	Keynote	Neutral Aqueous
43	Finger Lakes Chemicals	Safer Stuff	Terpene
43	Magnaflux	Daraclean 212	Neutral Aqueous
43	Mirachem Corporation	Mirachem 250	Acidic Aqueous
43	Solutia Inc	Santosol DME	Ester
42	Pentone Corporation	Citrikleen XPC	Terpene-Semi-Aqueous
42	Pride International Inc	Citrisolv Plus	Semi-Aqueous
40	Alconox Inc	Detergent 8	Alkaline Aqueous
40	Chem Tech Solutions	1050 Magic	Organic
40	Chem Tech Solutions	Westech CT 1550	Terpene
39	Bio Chem Systems	Bio T 200 A	Terpene
39	Magnaflux	Daraclean 232	Alkaline Aqueous
39	Oakite Products	Inproclean 4000 T	Terpene-Organic
39	US Polychem Corporation	Polychem PW 147	Alkaline Aqueous
39	Vertec BioSolvents	VertecBio Gold 2	Organic
38	Du Pont	DBE	Ester
38	Du Pont	DBE 4	Ester
38	Eastern Color & Chemical Company	Ecobrite Cleaner AK	Alkaline Aqueous
38	Solvent Kleene Inc	D Greeze 500 LO	Organic
38	Today & Beyond	Beyond 2001	Alkaline Aqueous
38	Today & Beyond	Beyond 2002	Alkaline Aqueous
38	Today & Beyond	Beyond 2003	Alkaline Aqueous
38	Today & Beyond	Beyond 2005	Alkaline Aqueous
37	Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
37	Bio Chem Systems	Solsafe 245	Petroleum Distillate
37	Bush Boake Allen Inc	BBA Solvent K312	Terpene
37	Dynamold Solvents Inc	DS 104	Petroleum Distillate
37	Dynamold Solvents Inc	DS 108	Petroleum Distillate
37	Ecolink	2005	HCFC
37	Ecolink	Safe Strip	Organic
37	Ecolink	VG 151	Terpene
37	Ecolink	Vortex	Semi-Aqueous
37	Florida Chemical Company	Citrus Burst 7	Terpene
37	Florida Chemical Company	D-Limonene	Terpene
37	Inland Technologies Inc	Citrasafe	Terpene
37	ISP Technologies	N Methyl Pyrrolidone	Organic
37	LPS Laboratories	LPS Precision Clean	Alkaline Aqueous
37	Magnaflux	Daraclean 282 GF	Alkaline Aqueous

CLEANING LABORATORY EVALUATION SUMMARY

37	National Diagnostic	Histo Clear	Terpene
37	National Diagnostic	Opti Clear	Terpene
37	Tarksol Inc	Tarksol HTF 60	Terpene
37	Today & Beyond	Beyond 2004	Alkaline Aqueous
37	U.S. Polychem Corporation	87 RB	Hydrocarbon
37	US Polychem Corporation	Hydropurge 36	Alkaline Aqueous
37	WM Barr & Company	Citristrip	Terpene-Semi-Aqueous
36	General Chemical Corporation	Aquaclean 4784	Caustic
36	Today & Beyond	Beyond 2006	Alkaline Aqueous
35	Oakite Products	Citradet	Semi-Aqueous
34	Magnaflux	Daraclean 282	Alkaline Aqueous

To compare the Environmental rankings the following is the values assigned to Acetone and Toluene
31 Acetone
30 Toluene

Summary:

Substrates:	Aluminum				
Contaminants:	Coatings, Resins/Rosins, Plastic				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
No Specific Vendor	Supplied alternatives list		0.00	☐	

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.