CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 03/21/2005

Experimenters: Jason Marshall

ClientType: Medical Instrument Mfr

ProjectNumber: Project #1

Substrates: Alloys, Aluminum, Stainless Steel, Titanium, Chrome

PartType: Coupon

Contaminants: Inks

Cleaning Methods:

Analytical Methods:

Purpose: To generate a list of alternatives for replacing MEK in ink removal

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. In addition, reports from previous medical device companies were sent to client.

Results: The following four products were tested for Sharpie Ink removal.

CompanyName	ProductName	Classification
Church & Dwight Co Inc	Armaklean M Aero	Alkaline Aqueous
Gemtek Products	SC Aircraft & Metal Cleaner	Alkaline Aqueous
International Products	Micro 90	Alkaline Aqueous
Today & Beyond	Beyond 2004	Alkaline Aqueous

These products have been tested for other types of ink.

Company	Product	Classification
AG Environmental Products Soy Gold 1000	Organic	
Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
Church & Dwight Co Inc	Armaklean M Aero	Alkaline Aqueous
Finger Lakes Chemical	1/1/02	Terpene
Florida Chemical Company	D-Limonene	Terpene
Gemtek Products	SC Aircraft&Metal	Alkaline Aqueous
Inland Technologies Inc	EP 921	Organic
International Products	Micro 90	Alkaline Aqueous
Loctite Corporation	7360	Ester
National Diagnostic	Opti Clear	Terpene
Nensco Supply	USA Wash	Petroleum Distillate
Prisco Printers Service	PES 320	Ester
Tarksol Inc	Tarksol HTF 60	Terpene
Tarksol Inc	Tarksol HTF-50	Semi-Aqueous

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Twin Rivers Technologies	Methyl Ester 1618	Ester
Vertec BioSolvents	Ink Zapper	Organic

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.