CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	01/21/2008
Experimenters:	Jason Marshall
ClientType:	General
ProjectNumber:	Project #1
Substrates:	Plastic
PartType:	Coupon
Contaminants:	Adhesive
Cleaning Methods:	Manual Wipe
Analytical Methods:	Visual
Purpose:	To generate a list of alternatives that can be used to manual clean plastic surfaces covered with various adhesives
Experimental Procedure:	Using the laboratory's database for solvent cleaning substitution, the lab generated a list of products that have been used to replace TCE in adhesive removal. In addition, vendor supplied data was searched for the same parameters.
Results:	Several lists were identified for adhesive removal from plastic surfaces using manual wiping.

The first two lists are based on laboratory testing for general situation.
Manual wiping of plastic parts for adhesive removal

Company	Product	Classification
Brulin Corporation	Compliance	Caustic
Loctite Corporation	7360	Ester
Fisher Scientific	Isopropanol	Alcohol
Eastern Color & Chemical Co	Ecobrite Cleaner AK	Alkaline Aqueous
Tarksol Inc	Tarksol HTF 85 B	Alcohol-Organic
Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
Inland Technologies Inc	Safety Prep	Terpene
Oakite Products	Fisan Versaclean	Alkaline Aqueous
Solvent Kleene Inc	D Greeze 500 LO	Organic

Any process for plastic parts cleaning of adhesive

Company	Product	Classification
Bio Chem Systems	Bio T 200 A	Terpene
Bio Chem Systems	Bio T 300 B	Terpene-Semi-Aqueous
Bio Chem Systems	Bio T Max	Terpene-Semi-Aqueous
Bio Chem Systems	Green Stuff-6325	Alkaline Aqueous
Brulin Corporation	Compliance	Caustic
Eastern Color & Chemical Co	Ecobrite Cleaner AK	Alkaline Aqueous
Ecolink	Heavy Weight Non Butyl Alkaline Aqueous	
Ecolink	Positron	Biobased
	Isopropanol	Alcohol

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Fisher Scientific		
Heatbath Corporation	Alu-Kleen 36	Acidic Aqueous
Heatbath Corporation	Power Wash Cleaner BCR Alkaline Aqueous	
Inland Technologies Inc	Citrasafe	Terpene
Inland Technologies Inc	Safety Prep	Terpene
Loctite Corporation	7360	Ester
Oakite Products	Fisan Versaclean	Alkaline Aqueous
Solvent Kleene Inc	D Greeze 500 LO	Organic
Tarksol Inc	Tarksol HTF 85 B	Alcohol-Organic
Today & Beyond	Beyond 2001	Alkaline Aqueous
Today & Beyond	Beyond 2002	Alkaline Aqueous
Today & Beyond	Beyond 2003	Alkaline Aqueous
Today & Beyond	Beyond 2004	Alkaline Aqueous
Today & Beyond	Beyond 2005	Alkaline Aqueous
Today & Beyond	Beyond 2009	Organic
Turco Products Inc	Turco 5948 DPM	Alkaline Aqueous
US Polychem Corporation	87 RB	Hydrocarbon
US Polychem Corporation	Hydropurge HPL 790	Caustic
Valtech Corporation	Valtron SP 2250 2LF	Alkaline Aqueous

The following products were found to be successful on more than one of the CAS#s provided for the adhesives currently being cleaned.

Company	Product
General Chemical Corporation	Aluminex 5834
Innovative Organics Inc	Amber Clean SC 11
General Chemical Corporation	Aquaclean 4784
Today & Beyond	Beyond 2009
Finish Line Technologies Inc	Bio Degradable Degreaser
Bio Chem Systems	Bio T 300 B
Bio Chem Systems	Bio T Max
AG Environmental Products	Canola Gold CE110
Inland Technologies Inc	Citrasafe
Pentone Corporation	Citrikleen XPC
Florida Chemical Company	Citrus Burst 7
Crest Ultrasonics	Crest 14
Solvent Kleene Inc	D Greeze 1000
Solvent Kleene Inc	D Greeze 500 LO

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DuPont	DBE 5
DuPont	DBE 6
Florida Chemical Company	D-Limonene
Dynamold Solvents Inc	DS 104
Dynamold Solvents Inc	DS 108
Enviro Tech International Inc	Ensolv
Oakite Products	Inproclean 3800
Kyzen Corporation	Ionox HC 2
Petroferm Inc	Lenium ES
Gemtek Products	Maxi Solv
Metabolix Inc	Metabolix E3HB
Kyzen Corporation	Metalnox M6960
Twin Rivers Technologies	Methyl Ester 1618
International Products Corporation	Micro 90
Brulin Corporation	Natural Sol 100
Gemtek Products	SC Aircraft & Metal Cleaner
Poly Systems USA Inc	Solvon IP
Poly Systems USA Inc	Solvon PB
Soysolv Industrial Products	Soysolv II

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.