CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	1999
DateRun:	10/05/1999
Experimenters:	Jason Marshall
ClientType:	Chemistry Dept @ University
ProjectNumber:	Project #1
Substrates:	Plastic, Electronics
PartType:	Coupon
Contaminants:	Fluxes, Solder
Cleaning Methods:	
Analytical Methods:	
Purpose:	Information request
Experimental Procedure:	SUBSTRATE MATERIAL: Circuit boards QUESTION ASKED: Would like a listing of cleaners that can be used to remove solder from circuit boards
Results:	RESPONSE/ANSWER: The Massachusetts Toxics Use Reduction Institute (TURI) has made the results of the tests conducted at the Institute's Surface Cleaning Laboratory (SCL) into a searchable database/ spreadsheet format. This should make alternative cleaner selection faster and easier. Here are the results of your query, based on the information supplied: Table 1 lists the successful cleaning trials conducted using ultrasonic cleaning.

Table 1. Products for Possible Cleaning of Solder from Circuit Boards.

Company Name	Product Trade Name	Classification
Alconox	Det-O-Jet	Alkaline aqueous
Alconox	Citranox	Acidic Aqueous
Alconox	Luminox	Aqueous
Brulin	815 PCX	Semi-Aqueous Alcohol
Chemstation	Greenstuff II	Akaline Aqueous
Chemstation	Greenstuff Neutral	Aqueous
Chem-Tech Int	CT-1 Concentrate	Semi-Aqueous Terpene
Chem-Tech Int	Green Thunder	Alkaline Aqueous
Chemtronics	Super Bio-Wash	NMP based
Chrisal USA	Super CMF 240	Alkaline Aqueous
Church & Dwight	Armakleen E 2001	Alkaline Aqueous
Church & Dwight	Armakleen E 2002	Aqueous
Diversity Corp	Twist	Solvent
Ecolink	2005	HCFC
Ecolink	Positron	Terpene
EMKAY	Safety Wash	Alkaline Aqueous
EMKAY	Safety Wash CRC	Alkaline Aqueous
EMKAY	Safety Wash Clear	Alkaline Aqueous
Envirosolutions	SolSafe 245	Alcohol-aliphatic hydrocarbons
Finger Lakes	Resineater	Tarksol 97 Solvent
Florida Chemical	D-Limonene	D-Limonene Solvent
	SC 1000	

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Gemtek Products		Non-ionic Surfactant System
Gemtek Products	SC Supersolve	Organic
Inland Technologies	Teksol	D-Limonene Solvent
Inland Technology	EP 921	D-Limonene Solvent
Innovative Organics	Amber Clean SC 11	Alkaline Aqueous
International Biosystem	BIO-Z	Acidic Microbial
International Products	MICRO 90	Alkaline Aqueous
Kyzen	Mis-Print Stencil Remover	Hydrocarbon-Cyclic
Kyzen	Ionox FCR	Semi-Aqueous Alcohol
Loctite Corporation	7360	Aliphatic Ester
Oakite Products	InproClean 3800	Alkaline Aqueous
Oakite Products	InproClean 4000 T	Semi-Aqueous Terpene
Oakite Products	CitriDet	Citrus Solvent
Occidental Chemical	Oxsol 100	Chlorobenzotrifluoride
Safe Science	Engine Degreaser	Terpene
Savogran	Dirtex Prepaint Cleaner	Alkaline Aqueous
Savogran	HD 34	Semi-Aqueous
Savogran	Safety-Solve	Di-Methyl Ester
Sunshine Makers Inc	Simple Green	Alkaline Aqueous
SWR Corp	SWR One	Alkaline Aqueous
T-Square	HTF 50	Semi-Aqueous Terpene
T-Square	HTF 85 B	Terpene
US Polychem	87 RB	Petroleum Distillates
WR Grace	Daraclean 282	Alkaline Aqueous

Summary:

Conclusion: For further information or MSDSs on any of the listed products contact the lab at (978)934-3133.