CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2001
DateRun:	11/25/2001
Experimenters:	Jason Marshall
ClientType:	Electronics Manufacturer
ProjectNumber:	Project #1
Substrates:	Steel
PartType:	Part
Contaminants:	Solvent, Salts
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	Preliminary evaluation of selected products.
Experimental Procedure:	Eleven cleaning formulations were selected from the laboratories supply. Ten were used at 100% and at room temperature (75 F). A plastic eye dropper was used to place a small amount of the solutions onto the part's surface and allowed to soak for 1 minute. At the end of the soaking, the solution was wiped off using a swab. The part was observed for any signs of cleaning. One product, sodium bicarbonate, was used in a media blasting unit. The part was cleaned for 1 minute at room temperature at a pressure around 100 psi. Contaminant: White powders (SiO2, NHCl, (NH4)2SiF6, or NH4HF2)
Results:	At first glance, most of the products looked like they cleaned the white powder from the metal part. After the liquids dried, the white powder returned. A couple of products left less white powder than was already there. The media blasting with sodium bicarbonate was very successful in removing the white powder. The blasting also removed the green paint from the side of the part. The following table lists the observations made during the trial.

Table 1. Cleaning Observations

Multikleen 1568	Appeared to dissolve powders, after drying part was still white
	Lifted out dirt and green specks
Shopmaster	Appeared to dissolve powders, after drying part was still white
	Less white than start-lifts dirt
Inproclean 3800	Appeared to dissolve powders, after drying part was still white
	Lifted out dirt and green specks
Amberclean 526L	Smudges powder
	Lifted out dirt and green specks
Beyond 2001	Appeared to dissolve powders, after drying part was still white
	Less white than start-lifts dirt
Coil Bright	Little powder dissolving
Valtron SP 2700KB	Smudges powder
DS 108	Appeared to dissolve powders, after drying part was still white
	Evaporates fast
Uni Clear II	Appeared to dissolve powders, after drying part was still white
Bio T Max	Appeared to dissolve powders, after drying part was still white
Sodium Bicarbonate	Removes white powder, removes green paint from surface

Summary:

Substrates:	Steel
Contaminants:	Solvent, Salts

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Heatbath Corporation	Multi-Kleen 1568	100	0.00	☐	
Buckeye International	Shopmaster	100	0.00	☑	
Oakite Products	Inproclean 3800	100	0.00	☐	
Innovative Organics Inc	Amberclean 527 L	100	0.00	☑	
Today & Beyond	Beyond 2001	100	0.00	☑	
Watson Technical Associates	Coil Bright	100	0.00	☐	
Valtech Corporation	Valtron SP 2700 KB	100	0.00	☐	
Dysol	DS 108 Wipe Solvent	100	0.00	☑	
Universal Photonics	Uni Clear II	100	0.00	☐	
Bio Chem Systems	Bio T Max	100	0.00	☐	
Armex Cleaning and Coating Removal Systems	Sodium Bicarbonate	100	0.00	☑	

Conclusion: The five cleaners that were more successful will be evaluated at the client's current operating conditions of 20 minutes and 140 F. One part will also be cleaned fully with media blasting.