CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2000
DateRun:	01/05/2000
Experimenters:	Jason Marshall, Nicole Vayo
ClientType:	Chemical Light mfr
ProjectNumber:	Project #1
Substrates:	Glass/Quartz
PartType:	Coupon
Contaminants:	Phthalates
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Black light
Purpose:	To identify a methodology for determining cleanliness of surfaces.
Experimental Procedure:	Two cleaners were selected on the basis of the previous trial. The products were diluted to 2% by volume in 600 ml beakers using DI water. The beakers were heated to 120 F on a hotplate. Six pre-cleaned coupons were contaminated using one of the two compounds using an small plastic eye dropper. The other six were coated with the second contaminant. Coupons were allowed to sit overnight. Three coupons with the phthalate were cleaned first for three minutes. A single tap water rinse was used for 30 seconds at 120 F. Drying was at room temperature for 10 minutes. The second set of coupons with the activator mix were cleaned in the same beakers. Rinsing and drying were the same as before. Coupons were analyzed under the black light in a chamber. Each set of coupons were compared by two lab staff members. SUBSTRATE MATERIAL: Glass coupons CONTAMINANTS: Activator compound (75-65-0, 131-11-3, 7722-84-1); Phthalate (84-74-2) CONTAMINATING PROCESS USED: Half the coupons were coated with one of the chemicals and the other half with the second contaminant
Results:	The order of cleaning was used so that the effectiveness of removing the activator mix could be determined. By cleaning the activator after the phthalate, the activator remaining on the coupons would react with phthalate. Upon analyzing under the black light, any activator un-removed from the coupons would be easily seen due to the fluorescing.

Summary:

Substrates:	Glass/Quartz				
Contaminants:	Phthalates				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
SWR Corporation	SWR One	2	0.00	☑	
International Products Corporation	Micro 90 Conc.	2	0.00	☑	

Conclusion: Black light, was again shown to be an adequate method for determining if the contaminants had been removed. In performing the cleaning in the specified order, the un-fluorescing activator mix could be identified when exposed to the phthalate remaining in the cleaning solution.