CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	03/16/2008
Experimenters:	Jason Marshall, Heidi Wilcox
ClientType:	Electro-Optical Devices
ProjectNumber:	Project #1
Substrates:	Aluminum, Glass/Quartz
PartType:	Part
Contaminants:	Adhesive, Fluxes
Cleaning Methods:	Manual Wipe
Analytical Methods:	Visual
Purpose:	To eliminate IPA from cleaning process for worker health and safety
Experimental Procedure:	The TURI lab was asked by client to come and look at their cleaning lines for their flux machine and end of line panel cleaning before the panels are packaged. These processes will be moving to a new plant soon and will be in two buildings, each four times the size of the current facility. The lab staff did a walk-through of the facility to see the over process and the two processes where the company is looking for substitute cleaners: flux removal and end of line panel cleaning. Currently cleaning used full-strength IPA for the end if line panel cleaning and for the flux removal. The panel cleaning is done in an open area, so flammability is an issue. The company would like to keep costs as comparable to the IPA process as possible while increasing or bettering their overall EH&S profile. Currently they are paying about $ 8/gal for IPA in the current facility. During the panel cleaning the workers first visually inspect the back of the panel for any marks. Then they flip the panel over and look for any visible smidges on the panel and remove and gasket or adhesive on the panel or around the edges of the The flux removal process is contained in a mostly enclosed cabinet. Any product used for the flux removal can’t be sticky, slick or damage the flux.
Results:	The lab collected a small replica of a solar panel, a roll of gasket material, part of a sheet of adhesive and a small container of flux to take back to the lab to be used during testing.
Summary:	
Conclusion:	When products are found that perform satisfactorily for the cleaning process, the lab will go on site with them and test them with the workers, obtain feedback on performance, odor and reactions to skin.