CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	03/27/2008
Experimenters:	Heidi Wilcox
ClientType:	Electronics Manufacturer
ProjectNumber:	Project #1
Substrates:	Copper
PartType:	Part
Contaminants:	Cutting/Tapping Fluids
Cleaning Methods:	Mechanical Agitation
Analytical Methods:	
Purpose:	To find a product that would replace mineral spirits in their dip cleaning applications located at each machine
Experimental Procedure:	The cleaned parts were brought down for the company to take and look at them using their QA/QC program. Testing attempted to simulate the cleaning conditions being done. Cleaning took place in a bowl and used a metal mesh screen. There was no rinsing and drying involved. Then the parts were bagged and labeled and brought to them. Under initial inspection the company seemed pleased with what they saw. They liked a little oil left on the parts and they liked how there was no rusting after a couple of days.
Results:	During the second visit, the EH&S comparison sheet was discussed. The company liked the comparison and stated they wanted as low flammability as they could and the lower the VOC level the better. Once the company finished the QA/QC, the lab would try cleaning parts using the products with lower laboratory calculated efficiencies (under 90%). The company supplied the lab with a new set of parts to try on the other products. The cleaners that were used in the second testing were Soy Clear 1500, Shopmaster RC, Metalnox M6310 and Ionox HC2 as well as Biodiesel. These all had lower then 100g/l VOC's. The Ionox and the Shopmaster had flammability ratings of 2. The M6310 had a pH of 12.6. All of these have no major issues and the VOC level and flammability seem to be the two biggest criteria. Therefore, the Soy Clean and the Biodiesel fulfill both of those requirements well.
Summary:	
Conclusion:	The parts cleaned in the 5 cleaners were bagged and sent to the company. The products appeared to work well. The company was trying to obtain 5 gallons of each of the lower VOC products to do their own testing. The lab has not heard back formally how the 13 cleaners performed after the QA/QC inspection. At this point the lab has offered its services in the future if the on-site piloting does not perform up to the company's satisfaction.