

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1999  
 DateRun: 01/31/1999  
 Experimenters: Jason Marshall  
 ClientType: Electronics Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Teflon  
 PartType: Part  
 Contaminants: Lubricating/Lapping Oils  
 Cleaning Methods: Mechanical Agitation  
 Analytical Methods: Visual, microscopic

Purpose: To further evaluate the semi-aqueous cleaner.

Experimental Procedure: Teflon parts were immersed into the beaker with the full-strength cleaner at room temperature. The parts were manually agitated by lifting and lowering. After one minute of cleaning the shavings and parts were rinsed for 15 seconds in tap water at 120 F. Samples were analyzed using a microscope with a magnification of ~10x. After observations, the parts were dried using a Master Appliance Corp, Hot-air gun model HG-301A with room temperature air for two minutes. Parts were observed again under the microscope.

SUBSTRATE MATERIAL: Teflon parts and shavings  
 CONTAMINANTS: Oil-lubricating oil (CAS # 64742-53-6, 64742-52-5)

Results: After the initial observation with the microscope, a small amount of residue was discovered. Once the parts were dried using the forced air, the residue amounts were reduced. In order to further decrease the residue, a higher-pressure air blow off could be used. The flow of the air with the heat gun compares closely with a hair dryer.

Summary:

<b>Substrates:</b>	Teflon				
<b>Contaminants:</b>	Lubricating/Lapping Oils				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
EcoLink	Vortex	100	0.00	<input checked="" type="checkbox"/>	

Conclusion: It was determined that the Vortex cleaning solution was very productive in removing the oil from the parts. With an increase air blow off pressure, trace amounts of residue may be eliminated. Parts and shavings from all the cleaning trials have been returned to the client for further evaluation.