CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/21/2006

Experimenters: Jason Marshall

ClientType: Metal Working

ProjectNumber: Project #1

Substrates: Copper

PartType: Coupon

Contaminants: Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate the top two products on the supplied oil using immersion cleaning.

Experimental Procedure: Two products from the previous trial were diluted to 5% in 250 ml beakers using DI water and heated to 130 F.

Six preweighed coupons were coated with the supplied oil using a handheld swab. Coupons were weighed a second time to determine the amount of buffing compound added. Three coupons were cleaned in each solution for five minutes using minimal agitation in an immersion bath. Coupons were rinsed for 15 seconds in a tap water bath at 120 F and dried using a dry compressed air for 30 seconds. Once dry coupons were weighed a final time and product efficiencies were calculated.

Results: Both products showed some ability to remove the oil using immersion cleaning. However, efficiencies were below 80%. The table below lists the amount of buffing compound added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Daraclean 283	0.1511	0.0483	68.03
	0.2187	0.0502	77.05
	0.2745	0.0586	78.65
Polyspray Jet 790 XS	0.3827	0.0811	78.81
	0.2068	0.0567	72.58
	0.2292	0.0452	80.28

Summary:

Substrates:	Copper
Contaminants:	Oil

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Magnaflux	Daraclean 283	5	74.58	☑	
US Polychem Corporation	Polyspray Jet 790 XS	5	77.22	☑	

Conclusion: Both products will be reevaluated using ultrasonic cleaning.