CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2003
DateRun:	09/21/2003
Experimenters:	Jason Marshall
ClientType:	Lab
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Lubricating/Lapping Oils
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Gravimetric
Purpose:	Laboratory evaluations of alternative cleaning products

Experimental Procedure:

Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Five products were used at full strength, heated to 120 F on a hot plate. Fifteen preweighed coupons were coated with Houghton Chemical MTC 53 lubricant and allowed to dry for three days and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry overnight and then reweighed a final time. Efficiencies were calculated.

Note: Bio T Foam Plus was sprayed onto coupons at room temperature and allowed to sit for 5 minutes. The cleaner was then rinsed off.

Results:

Only one product removed over 85% of the lubricant within the five minutes of cleaning. Many of the coupons had a residue on them. This residue may be removed with the addition ultrasonic cleaning or a longer rinse/drying process.

Summary:

Substrates:	Stainless Steel				
Contaminants:	Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
AW Chesterton	278 Super Solv	100	66.48	☐	
Bio Chem Systems	Bio T Foam Plus	100	91.16	☑	
Invista S.a.r.l	Flexisolv DBE 3 ester	100	73.28	☐	
Eastern Color and Chemical Company	Ecobrite Cleaner AK	100	80.68	☐	
Gemtek Products	SC EZ Solv Safety Solvent	100	60.26	☐	

Conclusion:

Bio T Foam Plus was the only product removing over 85% of the lubricant.