CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 01/02/2002

Experimenters: Jason Marshall

ClientType: Metal Working

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Part

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Ultrasonics

Analytical Methods: Visual, Wipe

Purpose: To clean supplied parts with selected cleaners.

Experimental Procedure: Four lab selected and one client supplied cleaner were diluted to 5% using DI water in 600 ml beakers. Each solution was heated to 130 F in a Crest 40 kHz ultrasonic tank and degassed for 5 minutes prior to cleaning parts. Two parts were cleaned in each solution, one part at a time, for 10 minutes. Following the cleaning, the parts were rinsed in a tap water bath at 120 F for 15 seconds and then dried using a Master Appliance Heat gun at 500 F for 1 minute. Parts were observed visually and wiped with a white swab to determine level of cleanliness.

Contaminant: Fuchs Renocut 127 (mineral oil)

Results: All of the parts cleaned looked very clean, with no visible signs of oil anywhere. The cleanliness of the parts was nearly identical for all of the cleaners evaluated. The large lamp parts had some water spots that developed during the drying process. The following table lists the observations for each part cleaned.

Table 1. Observations

Cleaner	Part Description	Observations
Brulin	Flow Cell (1)	Very Clean, nothing on swab
	Flow Cell (2)	Very Clean, nothing on swab
Innovative	Manifold	Very Clean, nothing on swab
	Flow Cell	Very Clean, nothing on swab
T& B	Manifold	Very Clean, nothing on swab
	Flow Cell	Very Clean, nothing on swab
Valtech	Manifold	Very Clean, nothing on swab
	Lamp	Very Clean, some water spots from drying, nothing on swab
Texo	Manifold	Very Clean, some water spots from drying, nothing on swab
	Lamp	Very Clean, some water spots from drying, nothing on swab

Summary:

Substrates:	Aluminum				
Contaminants:	Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Formula 815 GD	5	0.00	☑	
Innovative Organics Inc	Amberclean 527 L	5	0.00	☑	
Today & Beyond	Beyond 2004	5	0.00		

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Valtech Corporation	Valtron SP 2275	5	0.00	☑	
Texo Corporation	Texo Cleaner 127	5	0.00	☑	

Conclusion: All products tested were very effective in cleaning the supplied parts.