CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1998

DateRun: 06/03/1998

Experimenters: Jason Marshall

ClientType: Printing Company

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Inks

Cleaning Methods:

Analytical Methods: Visual, Wipe

Purpose: Continue evaluating possible cleaners

Experimental Procedure: Four chemistries from the previous experiment were used in addition to three other chemistries. One preweighed aluminum coupon for each cleaner was coated with ink using a swab. The coupons sat for three hours and weighed again. A plastic eye dropper was used to transfer the full-strength cleaner onto the coupon. After five minutes the coupon was wiped with a paper towel to determine if any cleaning was occurring. Observations were recorded. More cleaner was added to the coupon. At the end of the second five-minute interval, coupons were wiped again, and observations made. The coupons were wiped dry, and the final weights were measured.

SUBSTRATE MATERIAL: Aluminum 6061 T-4
CONTAMINANTS: Ink-Poly 2700 Process Red

Results: Table 1 lists the observations made at both five-minute intervals. And Table 2 list the cleaning efficiencies of the cleaners at full strength.

Table 1 Observations Made

CLEANER	1st OBSERVATION (5 min)	2nd OBSERVATION (10 min)
Simple Green	No signs of removal	No good
Shopmaster	Complete Removal of Ink	
Compliance	Turned towel pink	Turned towel pink
Soy Gold 1000	Some ink removed in sections	Complete removal of Ink
DE-OX 007	Very little signs of removal	No good
ND-17	Very little signs of removal	No good
InproClean 4000T	Some ink removed in sections	Complete removal of Ink

Table 2 Cleaning Efficiencies

Chemistry	% Contaminant Removed
Soy Gold	99.6
4000T	98.5
Simple Green	7.61
Compliance	3.72
ND-17	2.14
Shopmaster	100
DE-OX 007	8.01

Summary:

Substrates:	Aluminum

CLEANING LABORATORY EVALUATION SUMMARY

Contaminants:	Inks				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
AG Environmental Products	Soy Gold 1000	100	99.60	☑	
Oakite Products	Inproclean 4000 T	100	98.50	☑	
Simple Green	Concentrated Industrial Strength Cleaner and Degreaser	100	7.61	☐	
Brulin Corporation	Compliance	100	3.72	☐	
MacDermid Industrial Products	ND 17	100	2.14	☐	
Buckeye International	Shopmaster	100	100.00	☑	
US Polychem Corporation	Polychem DEOX 007	100	8.01	☐	

Conclusion: Three chemistries were able to remove the ink. Soy Gold 1000 (soy methyl ester), InproClean 4000T (semi-aqueous terpene) and Shopmaster (alkaline aqueous). MSDSs have been included for the three products.