CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2011

DateRun: 05/16/2011

Experimenters: Heidi Wilcox

ClientType: Bicycle Manufacturer

ProjectNumber: Project #2

Substrates: Titanium

PartType: Part

Contaminants: Inks

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To find a substitute for Acetone in current process

Experimental Procedure: Four cleaners plus the clients supplied cleaner were used on client supplied titanium tubing parts for two reasons. First to see how well the cleaners would removed the ink on the tubing that came printed on it and also to clean the ends of the tubing with the cleaners that worked from trial one so the client can use these tubes for wire brushing and actual welding to see how they hold up to their current solvent. All products were used at full strength as well as the clients current cleaner. Each solution used at room temperature and cleaning was done with a wiping process.

Each tube was numbered 1 – 5 in the middle to correspond to the cleaner being used on it. The ends of the tube were wiped, both ends, with the blue supplied paper towels the client uses in their shop with each of the corresponding cleaners. The tube ends were then wiped off with a dry, clean portion of the blue paper towel and then put into a plastic pouch for shipping back to the client along with cleaner samples for them to try at their shop.

Results: Four of the cleaners worked on the in that comes on the tubing itself, including the clients supplied cleaner. Therefore, only 3 of the labs cleaners from trial one worked on this ink.

Cleaner	Observations for removal of ink printed on tube
Acetone (current)	Removed ink on tube easily
BIO-SOLV	Removed Ink on tube easily
Bio T Max	Didn’t remove the ink from the tube
Dysol 108	Removed Ink on tube easily
Ez Solv	Removed Ink on tube easily

Summary:

Substrates:	Titanium				
Contaminants:	Inks				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Fisher Scientific	Absolute Ethanol	0	0.00	☐	
Fisher Scientific	Acetone (CAS: 67-64-1)	100	0.00	☑	
Phoenix Resins Inc	BioSolv	100	0.00	☑	
Bio Chem Systems	Bio T Max	100	0.00	☐	
Dysol	DS 108 Wipe Solvent	100	0.00	☑	
Gemtek Products	SC EZ Solv Safety Solvent	100	0.00	☑	

Conclusion: Three of the lab supplied cleaners worked well on the ink that comes on the tubes. Next steps are to send the tubes back to the client to use in welding along with samples of the three new products for them to try and two testing reports.