CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 05/09/2006

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Paints

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To evaluate selected products on supplied parts using ultrasonic cleaning.

Experimental Procedure: One of the three products was diluted to 5% using DI water and two others were diluted to 50% in 600 ml beakers. The cleaning solutions were heated to 130 F in an ultrasonic tank.

The supplied parts were coated with Westfield Coatings Corp urethane paint mixtures. One end of spindle was immersed into a cleaning product and cleaned for 30 minutes using a 40 kHz ultrasonic tank. Visual observations were made at 5, 10, 20 and 30 minutes. After the cleaning, the part was rinsed in a tap water spray for 15 seconds at 120 F and air dried for 30 seconds at room temperature. The parts were then rubbed with a gloved hand to determine how easily the paint could be removed.

Due to the number of supplied parts with this paint type, one spindle was cleaned in two products, one per each end.

Results:

Cleaner	Time	End	Observations
Inproclean 4000 T	5	1-Points	Loosening paint
	10		Rub off paint
	20		Wipe off easier than after 10 min
	30		Mostly clean, some paint remaining
Inproclean 4000 T	5	1-Base	Most oil removed; some paint removed
	10		Good cleaning of oil and paint
	20		Still some oil and paint left
	30		Very little oil or paint remaining
Citrus Bust 7	5	2-Points	Loosening paint
	10		Easy to wipe off paint
	20		Most paint gone; started to turn metal black
	30		Stopped after 20 minutes
SC Actisolv	5	2-Base	Most oil removed; some paint removed
	10		Good oil removal and paint removal
	20		Very little oil and paint left
	30		Very clean

Summary:

Substrates:	Steel				
Contaminants:	Paints				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Oakite Products	Inproclean 4000 T	5	0.00	☑	

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Florida Chemical Company	Citrus Burst 7	50	0.00	☐	
Gemtek Products	SC Actisolv Safety Solvent	50	0.00	☑	

Conclusion: Two of the products worked well on removing the oil and paint from the supplied parts. The other product did remove the paint but resulted in turning the metal black. A lower concentration may reduce or eliminate this blackening.