CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2006
DateRun:	05/07/2006
Experimenters:	Jason Marshall
ClientType:	General
ProjectNumber:	Project #1
Substrates:	Steel
PartType:	Part
Contaminants:	Paints
Cleaning Methods:	Ultrasonics
Analytical Methods:	Visual
Purpose:	To evaluate selected products on cleaning supplied parts.

Experimental Procedure:

Three selected products were diluted to 5% using DI water and one was used at full strength in 600 ml beakers. The cleaning solutions were heated to 130 F in an ultrasonic tank.

The supplied parts were coated with RPM Wood Finishes Group 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. The cleaning solution that worked the best was then used to re-clean the opposite end so that the supplied part was eventually cleaned by one product.

Results:

Each of the four products removed some of the paint from the supplied parts. The observations made for each product are listed in the table below.

Cleaner	Time	End	Observations
Solsafe 245	5	1-Points	Started to dissolve paint, became cloudy
	10		Paint "bubbling" from surface
	20		Paint was peelable
	30		Paint could be brushed off
Inproclean 4000 T	5	1-Base	Removed oil and some of the paint
	10		Paint removed from base
	20		Paint removed from middle plate
	30		Nearly clean
A 2000 XS	5	2-Points	Started dissolving paint
	10		Some peeling
	20		Paint smeared when wiped
	30		Could be brushed off
Surface Cleanse	5	2-Base	Some oil removal
	10		Could wipe paint off
	20		Good paint removal - less than 4000 T
	30		Some paint remaining
Re-Cleaned			
Inproclean 4000 T	5	1-Points	Brush off paint

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	10		Peel paint off
	20		Area with thick paint still coated
	30		Scrape off paint - Most effective
Surface Cleanse	5	2-Points	Some removal
	10		Brush paint off
	20		Still paint remaining
	30		Areas with thick paint still coated

Summary:

Substrates:	Steel
Contaminants:	Paints

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Bio Chem Systems	Solsafe 245	100	0.00	☐	
Oakite Products	Inproclean 4000 T	5	0.00	☑	
US Polychem Corporation	Polychem A 2000 XS	5	0.00	☐	
International Products Corporation	Surface Cleanse Concentrated Neutral 930	5	0.00	☑	

Conclusion: Inproclean 4000 T had the most success followed by Surface Cleanse 930. Photos of before and after have also been included on the following page.