CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 05/16/2006

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #2

Substrates: Plastic

PartType: Part

Contaminants: Paints

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To evaluate additional products for paint/ink removal from supplied products

Experimental Procedure: Nine additional products were selected from the lab's database of test results based on client supplied information. One product was used at 30%, two products were mixed to 50-50 mix and the remaining seven were used at full strength. Each product was heated to 150 F in a 40 kHz ultrasonic tank. One golf ball was cleaned in each solution for 30 minutes. At the end of the cleaning, the ball was rinsed in a tap water spray for 15 seconds at 120 F and wiped dry with a paper towel. Observations were made and compared to the client's current cleaner. An additional 30 minutes of cleaning was included if the alternative started to remove the paint and ink.

Results:

Alternative	Observation
DBE 5/6	Slightly less removal of paint than Actisolv
Actisolv	Little change from the previous trial at 130 F
	Still had paint left on golf ball
Inproclean 4000 T	Excellent removal at 30 minutes. Paint could be peeled
	off along with the ink. Still had some paint left.
	With additional cleaning time the alternative may have
	started to affect the plastic ball
Pinene	No change in paint
Ionox HC2	Some coating may have been removed. Less shine
Bio T Max	No change in paint
Soy Gold 2000	No change in paint
EP 921	Removed a lot of the paint; However the ball was
	damaged
DS 104	Removed some of the paint.

Summary:

Substrates:	Plastic
Contaminants:	Paints

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Invista S.a.r.l	Flexisolv DBE 5 ester	50	0.00	☑	
Gemtek Products	SC Actisolv Safety Solvent	100	0.00	☑	
Oakite Products	Inproclean 4000 T	30	0.00	☑	
Finger Lakes Chemical	FLSC-31 Pinene All Purpose Cleaner	100	0.00	☐	
Kyzen Corporation	Ionox HC 2	100	0.00	☑	
Bio Chem Systems	Bio T Max	100	0.00	☐	
AG Environmental Products	Soy Gold 2000	100	0.00	☐	
Inland Technologies Inc	EP 921	100	0.00	☐	

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Dysol	DS 104 Wipe Solvent	100	0.00	☑	

Conclusion: Only a few alternatives showed limited success in removing the paint from the golf ball.