CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2001

DateRun: 11/18/2001

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #1

Substrates: Brass

PartType: Part

Contaminants: Oxides

Cleaning Methods: Immersion/Soak

Analytical Methods: Wipe

Purpose: Evaluation of additional cleaners for brass brightening

Experimental Procedure: Five cleaners were selected from the lab's Vendor Directory. Four products were used at full strength and one was used at 10% (NMP). One part was immersed into each solution for 10 minutes. After soaking, the part was removed from the solution and wiped dry with a paper towel. Observations were made and recorded. Any successful product was then heated to 130 F on a hot plate. A part was again immersed into the solution for 10 minutes. After soaking, the part was wiped dry and observed again.

Results: The two U.S. Polychemical products, DEOX 007 and Ultra CR, were the very successful in brightening the brass. The DEOX caused the brass to look more of copper color, although. The Ultra CR resulted in a bright brass color. The Chem Tech Solutions Westech CT 4712 brightened the brass, but caused the part to become very copper like in color. Both of the remaining products, D-Greeze 500 Lo and NMP, were not successful. The following table lists the observations made.

Table 1. Brightening Observations

Product	Room Temp Observations	Heated Observations
DEOX 007 Brighten part some	More of a brass like color	
	The wipe turned blue	
	Part copper color	
	More blue on wipe	
D-Greeze	Solution turned green	Not Tested
	Part only some what brighter	
NMP	Little brightening	Not Tested
	Some blue/green on wipe	
Ultra CR	Brighten	Good brightening
	Removed grime	Brass color
		Cleaner looking
Westech	Shiny, Copper color	Not tested

Summary:

Substrates:	Brass
Contaminants:	Oxides

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
US Polychem Corporation	Polychem DEOX 007	100	0.00	☑	
US Polychem Corporation	Polychem DEOX 007	100	0.00	☑	
Transene Company, Inc.	D Greeze 500 LO	100	0.00	☐	
ISP Technologies	N Methyl Pyrrolidone	10	0.00	☐	

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US Polychem Corporation	Polychem Ultra CR	100	0.00	☑	
US Polychem Corporation	Polychem Ultra CR	100	0.00	☑	
Chem Tech Solutions	Westech CT-4712	100	0.00	☐	

Conclusion: The U.S. Polychemical Ultra CR was the best brightener evaluated thus far. Additional parts will be soaked in the Ultra CR.