CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2007

DateRun: 12/04/2007

Experimenters: Heidi Wilcox

ClientType: Wire & Cable Mfr

ProjectNumber: Project #1

Substrates: Steel

PartType: Part

Contaminants: Paints, Resins/Rosins

Cleaning Methods: Immersion/Soak

Analytical Methods: Tactile, Visual

Purpose: To screen potential cleaning products for removing paint/resin from steel parts

Experimental Procedure: The two products from the previous trial are being further testing on client supplied parts. Circular steel parts approximately 6 inches in diameter with resin on them were immersed in the two solutions of 100% concentration at 120 F to determine if heating the solutions will decrease the cleaning time. The parts were allowed to sit in the heated solution to determine what effect the cleaning products would have on the resin. Observations were made at 60, 120, 180 and minute intervals as well as overnight. Any signs of interaction between paint/resin and cleaner were recorded.

Results:

Product	Initial Appearance and observations
EnviroCare Floor	Clear
Stripper	
60 min	Solution was darkening in color. Resin seemed to be softening faster than when cleaned at room temperature.
120 min	Solution darkening much more then at RT. Resin still softening
180 min	Same
300 min	Same
overnight	Solution very dark. Seemed to remove more resin then at RT
Green Solutions	Clear, fizzed and saw streaks of color
60 min	Solution darkening quickly. Resin softening. Thinner areas down to metal
120 min	Solution very dark, resin still softening.
180 min	Same
300 min	Same
overnight	Solution black. Resin softening, thin areas down to metal

Summary:

Substrates:	Steel
Contaminants:	Paints, Resins/Rosins

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Rochester Midland Corporation	EnviroCare Floor Stripper	100	0.00	☑	
Spartan Chemical Company	Green Solutions Floor Stripper	100	0.00	☑	

Conclusion: Both the Rochester Midland and Spartan products worked. The cleaners soften the resin on the top which allows it to be wiped or scraped off in increments. The difference between heating and room temperature cleaning was that the solutions blackened, the resin dissolved, and the resin seemed to soften faster with heat. Thinner areas of resin may be able to be cleaned off in 3-5 hours rather than overnight. The main issue will be bath life with the resin dissolved. These products will be tested with heated ultrasonics next.