CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 02/09/2009

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Inks

Cleaning Methods: Immersion/Soak

Analytical Methods: Visual

Purpose: To test nontoxic industrial cleaning solutions for oil removal

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Products were selected based on the compatibility of substrate and removal of foreign substance. Used 5% concentration and heated the samples at 135F. The steel coupons were immersed in a product for 5 minutes, rinsed for 30 seconds in tap water at 120F and dried in 30 seconds using compressed air is room temperature. Coupons were coated with used oil. Using a handheld swab and allowed to dry for 144 minutes at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. After cleaning process, the final weights were recorded, efficiencies were calculated and recorded.

Results:

Kyzen Chemical, Industrial Floor	Initial Wt	Final wt	% Removal
	0.0291	0.0026	91.07
	0.0098	0.0045	54.08
	0.0166	0.0015	90.96
Vertec Biosolvent			
	0.0432	0.0239	44.68
	0.0357	0.0138	61.34
	0.0200	0.0045	77.50
Seventh Generation			
	0.0234	0.0145	38.03
	0.5597	0.0569	89.83
	0.0185	0.0061	67.03
Sky Product Cleaner			
	0.0127	0.0064	49.61
	0.0378	0.0197	47.88
	0.0139	0.0092	33.81

Summary:

Substrates:	Stainless Steel
Contaminants:	Inks

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Kyzen Corporation	Industrial Floor Cleaner 11	10	78.70	☐	
Vertec BioSolvents	VertecBio Gold Unscented Part Cleaner	10	61.17	☐	
Seventh Generation	Free & Clear All Purpose	10	64.97	☐	
Sky Products Company Inc	Cleaner #10	10	43.77	☐	

Conclusion: No product removed over 85% of the graffiti from stainless steel using immersion cleaning.