CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 02/08/2009

Experimenters: Johanna Oviedo

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Greases

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 10% concentration and heated the samples at 130F. 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:

Cleaner	Initial wt	Final wt	% Removed
Spartan Chemical, Graffiti Remover SAC			
	0.2164	0.00	97.74
	0.1945	0.04	79.33
	0.2131	0.05	78.18
DFC 105			
	0.2067	0.05	74.6
	0.1578	0.06	64.13
	0.4090	0.06	86.21
Brulin Comp. Formula 815 MX-AA			
	0.4025	0.06	85.81
	0.2403	0.12	50.81
	0.1860	0.09	53.98
Polychem, Polyspray 790			
	0.2284	0.01	96.85
	0.3260	0.07	77.21
	0.2071	0.08	59.10

Summary:

Substrates:	Stainless Steel				
Contaminants:	Greases				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Spartan Chemical Company	Graffiti Remover SAC	10	85.08	☑	
Cogent Environmental Solutions	DFC 105	10	74.98	☐	
Brulin Corporation	Formula 815MX AA	10	63.53	☐	
US Polychem Corporation	Polyspray Jet 790 XS	10	77.72	☐	

Conclusion: One product removed more than 85% of the grease from stainless steel using immersion cleaning.