

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009
 DateRun: 02/09/2009
 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.

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

Summary:	Substrates: Stainless Steel																														
	Contaminants: Greases																														
	<table border="1"> <thead> <tr> <th>Company Name:</th> <th>Product Name:</th> <th>Conc.:</th> <th>Efficiency:</th> <th>Effective:</th> <th>Observations:</th> </tr> </thead> <tbody> <tr> <td>Spartan Chemical Company</td> <td>Graffiti Remover SAC</td> <td>10</td> <td>85.08</td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>Cogent Environmental Solutions</td> <td>DFC 105</td> <td>10</td> <td>74.98</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>Brulin Corporation</td> <td>Formula 815MX AA</td> <td>10</td> <td>63.53</td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>US Polychem Corporation</td> <td>Polyspray Jet 790 XS</td> <td>10</td> <td>77.72</td> <td><input type="checkbox"/></td> <td></td> </tr> </tbody> </table>	Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:	Spartan Chemical Company	Graffiti Remover SAC	10	85.08	<input checked="" type="checkbox"/>		Cogent Environmental Solutions	DFC 105	10	74.98	<input type="checkbox"/>		Brulin Corporation	Formula 815MX AA	10	63.53	<input type="checkbox"/>		US Polychem Corporation	Polyspray Jet 790 XS	10	77.72	<input type="checkbox"/>	
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:																										
Spartan Chemical Company	Graffiti Remover SAC	10	85.08	<input checked="" type="checkbox"/>																											
Cogent Environmental Solutions	DFC 105	10	74.98	<input type="checkbox"/>																											
Brulin Corporation	Formula 815MX AA	10	63.53	<input type="checkbox"/>																											
US Polychem Corporation	Polyspray Jet 790 XS	10	77.72	<input type="checkbox"/>																											

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