

CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2026																											
DateRun:	08/10/2026																											
Experimenters:	Ashar Khan, Evan Hebert																											
ClientType:	Lab																											
ProjectNumber:	Project #17																											
Substrates:	Aluminum																											
PartType:	Coupon																											
Contaminants:	Greases, Oil																											
Cleaning Methods:	Immersion/Soak																											
Analytical Methods:	Gravimetric																											
Purpose:	To determine the efficacy of modified alcohol Metalnox M6386 chemistry in removing various industrial soils without the assistance of vacuum vapor degreasing equipment.																											
Experimental Procedure:	Three Aluminum coupons were assigned to each of 2 industrial soils; Hocut 759 oil and Phillips Multiplex FS 220 Grease. Each coupon was weighed using a gravimetric balance and had their initial weights recorded. Each coupon was then soiled with a pea sized amount of the appropriate soil using a swab to spread it across the surface of the coupons. Each coupon was weighed again and had their dirty weights recorded. The coupons were then immersed in a beaker of the Metalnox M6386 modified alcohol with a stir bar set to 100rpm for 5 minutes. Upon removal from the beaker, the coupons were allowed to air dry for 20 minutes before being weighed and having their final weights recorded.																											
Results:	<table> <tr> <th>Soil</th> <th>Initial wt of cont.</th> <th>Final wt of cont.</th> <th>%Cont Removed</th> <th>% AVG</th> </tr> <tr> <td rowspan="3">Hocut 795</td> <td>0.2070</td> <td>0.0138</td> <td>93.33</td> <td rowspan="3">94.27</td> </tr> <tr> <td>0.2093</td> <td>0.0134</td> <td>93.60</td> </tr> <tr> <td>0.2007</td> <td>0.0083</td> <td>95.86</td> </tr> <tr> <td rowspan="3">Multiplex FS 220</td> <td>0.2041</td> <td>0.1853</td> <td>9.21</td> <td rowspan="3">10.84</td> </tr> <tr> <td>0.1951</td> <td>0.1721</td> <td>11.79</td> </tr> <tr> <td>0.1981</td> <td>0.1753</td> <td>11.51</td> </tr> </table>	Soil	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG	Hocut 795	0.2070	0.0138	93.33	94.27	0.2093	0.0134	93.60	0.2007	0.0083	95.86	Multiplex FS 220	0.2041	0.1853	9.21	10.84	0.1951	0.1721	11.79	0.1981	0.1753	11.51
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Conclusion:	The Metalnox M6386 modified alcohol was successful in removing the Hocut 795 oil but was unsuccessful in removing the Multiplex FS 220 Grease.																											