

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003
 DateRun: 09/22/2003
 Experimenters: Jason Marshall
 ClientType: Lab
 ProjectNumber: Project #1
 Substrates: Steel
 PartType: Coupon
 Contaminants: Greases
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Six products were used at full strength, heated to 120 F on a hot plate. Eighteen preweighed coupons were coated with Dauber Chemical Co Tectyl 891 Class 1 Cosmoline grease (8052-41-3, 98918-69-4, 64742-65-0, 68608-26-4) and allowed to dry for three days and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry overnight and then reweighed a final time. Efficiencies were calculated.

Note: Bio T Foam Plus was sprayed onto coupons at room temperature and allowed to sit for 5 minutes. The cleaner was then rinsed off.

Results: Only one product removed over 85% of the soil during the 5-minute immersion cleaning. A second product removed just under 70%.

Summary:

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|------------------------------------|---------------------------|---------------|--------------------|-------------------------------------|----------------------|--|
| Substrates: | Steel | | | | | |
| Contaminants: | Greases | | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| AW Chesterton | 278 Super Solv | 100 | 68.07 | <input type="checkbox"/> | | |
| Bio Chem Systems | Bio T Foam Plus | 100 | 13.86 | <input type="checkbox"/> | | |
| Eastern Color and Chemical Company | Ecobrite Cleaner AK | 100 | 2.09 | <input type="checkbox"/> | | |
| EcoLink | Rip Tide | 100 | 4.87 | <input type="checkbox"/> | | |
| EcoLink | VG 151 | 100 | 85.02 | <input checked="" type="checkbox"/> | | |
| Gemtek Products | SC EZ Solv Safety Solvent | 100 | 15.32 | <input type="checkbox"/> | | |

Conclusion: Increased cleaning time or the addition of agitation would improve the cleaning for 278 Super Solv and VG 151.