

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004  
 DateRun: 03/28/2004  
 Experimenters: Dave Hout  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Stainless Steel  
 PartType: Coupon  
 Contaminants: Oil  
 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. One product was used at full strength and seven products were heated to 130 F on a hot plate. Twenty-four preweighed coupons were coated with Oil-Mineral Oil (5012-95-1) and allowed to dry for a half an hour 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 for a half an hour and then reweighed a final time. Efficiencies were calculated.

Results:

Summary:

|                           |                               |               |                    |                                     |                      |
|---------------------------|-------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>        | Stainless Steel               |               |                    |                                     |                      |
| <b>Contaminants:</b>      | Oil                           |               |                    |                                     |                      |
| <b>Company Name:</b>      | <b>Product Name:</b>          | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Dow Chemical Company      | XUS 40571 Development Solvent | 100           | 102.00             | <input checked="" type="checkbox"/> |                      |
| AW Chesterton             | 217 Pressure wash             | 5             | 80.32              | <input type="checkbox"/>            |                      |
| Jet Lube Inc              | Jet Lube 5000                 | 5             | 83.01              | <input type="checkbox"/>            |                      |
| Hubbard Hall Inc          | Ram Charger                   | 5             | 99.72              | <input checked="" type="checkbox"/> |                      |
| Man Gill Chemical Company | Gillite 1156                  | 5             | 97.57              | <input checked="" type="checkbox"/> |                      |
| Nensco                    | DT 600 Press Wash             | 5             | 101.63             | <input checked="" type="checkbox"/> |                      |
| Buckeye International     | XL 100 Cleaner & Degreaser    | 5             | 100.69             | <input checked="" type="checkbox"/> |                      |

Conclusion: Six out of the eight products were effective at removing the contaminant at an efficiency rate >97%