

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004
 DateRun: 01/06/2004
 Experimenters: Dave Hout
 ClientType: Lab
 ProjectNumber: Project #1
 Substrates: Stainless Steel
 PartType: Coupon
 Contaminants: Cutting/Tapping Fluids
 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. Seven products were heated to 130 F on a hot plate and one product was used at full strength. Twenty four preweighed coupons were coated with Cutting Fluid - Monroe Fluid Tech Cool Tool II 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:

| | | | | | |
|------------------------------|-------------------------------------|------------------------|--------------------|-------------------------------------|----------------------|
| Substrates: | | Stainless Steel | | | |
| Contaminants: | | Cutting/Tapping Fluids | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Man Gill Chemical Company | Gillite 1156 | 100 | 91.05 | <input checked="" type="checkbox"/> | |
| Hurri Kleen Corportion | HurriSafe - Hot Immersion Degreaser | 5 | 99.59 | <input checked="" type="checkbox"/> | |
| Hubbard Hall Inc | Ram Charger | 5 | 96.86 | <input checked="" type="checkbox"/> | |
| Heatbath Corporation | MultiKleen LX 1573 | 5 | 97.56 | <input checked="" type="checkbox"/> | |
| Chemkleen International Inc. | CT 1 Multipurpose Cleaner | 5 | 99.25 | <input checked="" type="checkbox"/> | |
| Buckeye International | Work Out | 5 | 100.04 | <input checked="" type="checkbox"/> | |
| Delta Omega Technologies Ltd | Attar D(R3) | 5 | 101.44 | <input checked="" type="checkbox"/> | |
| Equinox Products | Natural Solutions | 5 | 98.39 | <input checked="" type="checkbox"/> | |

Conclusion: All products were successful at removing the contaminant with an efficiency rate of over 91%