

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008  
 DateRun: 03/18/2008  
 Experimenters: Shweta Bansal  
 ClientType: Lab  
 ProjectNumber: Project #1  
 Substrates: Brass  
 PartType: Coupon  
 Contaminants: Buffing/Polishing Compounds  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Gravimetric  
 Purpose: removing buffing compound from brass

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Products were based on the compatibility of substrate and removal of foreign substance. Used 5% concentration and heated the samples at 135F. The 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 hours 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.

## Results:

| Cleaner               | Initial wt | Final wt | % Removed |
|-----------------------|------------|----------|-----------|
| inproclean 3800       |            |          |           |
|                       | 0.8785     | 0.8051   | 8.36      |
|                       | 0.7867     | 0.6491   | 17.49     |
|                       | 0.5309     | 0.3606   | 32.08     |
| mc 132                |            |          |           |
|                       | 1.5034     | 0.8708   | 42.08     |
|                       | 1.3357     | 1.1224   | 15.97     |
|                       | 0.6717     | 0.3121   | 53.54     |
| buff clean 14L        |            |          |           |
|                       | 0.7026     | 0.6022   | 14.29     |
|                       | 0.7723     | 0.6484   | 16.04     |
|                       | 1.0793     | 0.8416   | 22.02     |
| alconox det 8         |            |          |           |
|                       | 0.4199     | 0.0492   | 88.28     |
|                       | 0.3585     | 0.0331   | 90.77     |
|                       | 0.4261     | 0.0352   | 91.74     |
| daraclean 283         |            |          |           |
|                       | 1.0976     | 0.5828   | 46.9      |
|                       | 0.3483     | 0.2441   | 29.92     |
|                       | 1.3194     | 1.1998   | 9.06      |
| daraclean kx 43       |            |          |           |
|                       | 0.1467     | 0.0799   | 45.54     |
|                       | 0.3213     | 0.2148   | 33.15     |
|                       | 1.0750     | 0.0833   | 92.25     |
| buckeye 100xl poly    |            |          |           |
|                       | 0.8375     | 0.5115   | 38.93     |
|                       | 0.7553     | 0.6092   | 19.34     |
|                       | 0.4438     | 0.3153   | 28.95     |
|                       |            |          |           |
| us polychem spray jet |            |          |           |
|                       | 0.3504     | 0.2057   | 41.30     |

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|                |        |        |       |
|----------------|--------|--------|-------|
|                | 0.5013 | 0.1932 | 61.46 |
|                | 0.3546 | 0.2112 | 40.44 |
| buffclean 175L |        |        |       |
|                | 0.8697 | 0.8044 | 7.51  |
|                | 0.2362 | 0.2209 | 6.48  |
|                | 0.8866 | 0.2933 | 66.92 |
| buffclean 125L |        |        |       |
|                | 0.6668 | 0.5172 | 22.44 |
|                | 0.4311 | 0.3210 | 25.54 |
|                | 0.5988 | 0.3087 | 48.45 |

Summary:

|                                |                             |               |                    |                          |                      |
|--------------------------------|-----------------------------|---------------|--------------------|--------------------------|----------------------|
| <b>Substrates:</b>             | Brass                       |               |                    |                          |                      |
| <b>Contaminants:</b>           | Buffing/Polishing Compounds |               |                    |                          |                      |
| <b>Company Name:</b>           | <b>Product Name:</b>        | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>        | <b>Observations:</b> |
| Oakite Products                | Inproclean 3800             | 10            | 19.31              | <input type="checkbox"/> |                      |
| Matchless Metal Polish Company | MC 132                      | 10            | 37.19              | <input type="checkbox"/> |                      |
| Magnaflux                      | Daraclean 283               | 10            | 28.63              | <input type="checkbox"/> |                      |

Conclusion:

The one and only product that has passed our test with an 85% or better is buff clean 14L with a percentage of removal of 90.26%. The other products have not passed the passing rate of contaminant removal of 85%.