# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 08/30/2006

Experimenters: Jason Marshall

ClientType: Metal Working

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate selected products for removing first supplied buffing compound using immersion cleaning

Experimental Procedure: Eight alternative products were selected from the lab's database of testing results based on supplied client information. Products were selected based on buffing compound removal potential and compatibility with brass metal substrates. Each product was diluted to 5% in 250 ml beakers using DI water and heated to 130 F on a hot plate.

Twenty-four preweighed coupons were coated with the brown buffing compound using a handheld swab. Coupons were weighed a second time to determine the amount of buffing compound added. Three coupons were cleaned in each solution for five minutes using minimal stir bar agitation. Coupons were rinsed for 15 seconds in a tap water bath at 120 F and dried using a dry compressed air for 30 seconds. Once dry coupons were weighed a final time and product efficiencies were calculated.

Results: Four products removed over 80% of the buffing compound from the brass coupons after five minutes of immersion cleaning. The following table lists the amount of buffing compound applied, the amount remaining and the efficiency for each coupon cleaned.

| Cleaner | Initial wt | Final wt | % Removed |
|---|---|---|---|
| XL 100 | 0.1546 | 0.0863 | 44.18 |
| | 0.1222 | 0.0472 | 61.37 |
| | 0.1883 | 0.1275 | 32.29 |
| MC 132 | 0.1518 | 0.0136 | 91.04 |
| | 0.1152 | 0.0037 | 96.79 |
| | 0.1937 | 0.0547 | 71.76 |
| Inproclean 3800 | 0.1355 | 0.0500 | 63.10 |
| | 0.1118 | 0.0481 | 56.98 |
| | 0.1526 | 0.0835 | 45.28 |
| Polyspray Jet 790 XS | 0.1198 | 0.0012 | 99.00 |
| | 0.1533 | 0.0115 | 92.50 |
| | 0.0857 | 0.0028 | 96.73 |
| Daraclean 283 | 0.1416 | 0.0173 | 87.78 |
| | 0.1182 | 0.0181 | 84.69 |
| | 0.1004 | 0.0146 | 85.46 |
| Texolite 1734 XL | 0.1466 | 0.1086 | 25.92 |
| | 0.1081 | 0.0430 | 60.22 |
| | 0.1083 | 0.0397 | 63.34 |
| Prepaint | 0.0828 | 0.0695 | 16.06 |
| | 0.0990 | 0.0577 | 41.72 |
| | 0.0954 | 0.0691 | 27.57 |
| Gillite 0650 CI | 0.1059 | 0.0209 | 80.26 |
| | 0.0833 | 0.0122 | 85.35 |
| | 0.0960 | 0.0172 | 82.08 |

Summary:

| **Substrates:** | Brass | | | | |
|---|---|---|---|---|---|
| **Contaminants:** | Buffing/Polishing Compounds | | | | |
| **Company Name:** | **Product Name:** | **Conc.:** | **Efficiency:** | **Effective:** | **Observations:** |

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|---|---|---|---|---|---|
| Buckeye International | XL 100 Cleaner & Degreaser | 5 | 45.95 | ☐ | |
| Matchless Metal Polish Company | MC 132 | 5 | 86.53 | ☑ | |
| Oakite Products | Inproclean 3800 | 5 | 55.12 | ☐ | |
| US Polychem Corporation | Polyspray Jet 790 XS | 5 | 96.08 | ☑ | |
| Magnaflux | Daraclean 283 | 5 | 85.98 | ☑ | |
| Texo Corporation | Texolite 1734 XL | 5 | 49.83 | ☐ | |
| Savogran Company | Dirtex Prepaint Cleaner | 5 | 28.45 | ☐ | |
| Man Gill Chemical Company | Gillite 0650 Cl | 5 | 82.57 | ☑ | |

Conclusion: The four successful products will be used on the next supplied buffing compound.