

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2023  
 DateRun: 11/18/2023  
 Experimenters: Alexander Symko, Amelia Wagner  
 ClientType: Lab  
 ProjectNumber: Project #6  
 Substrates: Brass  
 PartType: Coupon  
 Contaminants: Lubricating/Lapping Oils, Oil  
 Cleaning Methods: Vacuum Cycle Nucleation  
 Analytical Methods: Gravimetric

Purpose: To determine the efficacy of an aqueous cleaner utilizing VCN equipment.

Experimental Procedure: Three pre weighed brass tubes were used as coupons. The brass tubes were soiled by swabbing the insides with Hycut Et 46 oil. The dirty weights of the tubes were then recorded. The tubes were then subjected to a one-minute heated cycle at 140 degrees F in the VCN using the cleaner Aquanox A4625 at a 1% concentration. The tubes were then removed and left to air dry overnight. The next day the clean weights of the tubes were recorded.

| Cleaner          | soil        | Initial wt of cont. | Final wt of cont. | %Cont Removed | % AVG |
|------------------|-------------|---------------------|-------------------|---------------|-------|
| Aquanox A4625 1% | Hycut Et 46 | 1.7422              | 0.0004            | 99.98         | 99.94 |
|                  |             | 0.8591              | 0.0005            | 99.94         |       |
|                  |             | 1.1061              | 0.0010            | 99.91         |       |

|          |                      |                               |               |                    |                                     |                      |
|----------|----------------------|-------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Summary: | <b>Substrates:</b>   | Brass                         |               |                    |                                     |                      |
|          | <b>Contaminants:</b> | Lubricating/Lapping Oils, Oil |               |                    |                                     |                      |
|          | <b>Company Name:</b> | <b>Product Name:</b>          | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
|          | Kyzen Corporation    | Aquanox A4625                 | 1             | 99.94              | <input checked="" type="checkbox"/> |                      |

Conclusion: Aquanox A4625 1% concentration is an effective cleaner utilizing VCN methods to remove oil from complex brass part.