

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2017
 DateRun: 08/16/2017
 Experimenters: Alicia McCarthy, Hayley Byra
 ClientType: General
 ProjectNumber: Project #1
 Substrates: Aluminum
 PartType: Coupon
 Contaminants: Lubricating/Lapping Oils, Waxes
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of Fluosolv NC-786 at removing wax and lubricants from aluminum alloys.

Experimental Procedure: Prew weighed aluminum coupons were tested for each aqueous cleaner. Five soils were tested: Lenox Lube Tube Wax (CAS:8002-74-2; 57-11-4; 5989-27-5) Blasocut 2000 Universal Lubricant (CAS: 64742-52-5; 61790-44-1; 68608-26-4; 63449-39-8; 107-41-5; 770-35-4); Accu-Lube LB 6000 Lubricant (CAS:68583-51-7); Oak 7a lubricant (CAS: 64742-53- 6; 68909-65-9); and Rustlick EDM30 lubricant (CAS: 64742-47-8; 8042-47-5). Coupons were soiled using a swab to cover the bottom third of the substrate and dirty weights were recorded. Coupons were immersed, three at a time, in a heated beaker (80 F) filled with 200ml of Fluosolv NC-786 for five minutes. Dirty weights were recorded after testing.

| Soil | Initial wt. | Final wt. | % Cont. Removed | Ave.% Removed |
|-----------|-------------|-----------|-----------------|---------------|
| Wax | | | | |
| | 0.0712 | -0.0015 | 102.11 | 100.57 |
| | 0.0958 | 0.0024 | 97.49 | |
| | 0.0999 | -0.0021 | 102.10 | |
| Blasocut | | | | |
| | 0.0504 | 0.0005 | 99.01 | 99.68 |
| | 0.0626 | -0.0001 | 100.15 | |
| | 0.0776 | 0.0001 | 99.87 | |
| Accu-Lube | | | | |
| | 0.0809 | -0.0001 | 100.12 | 99.97 |
| | 0.1504 | -0.0003 | 100.20 | |
| | 0.1426 | 0.0006 | 99.58 | |
| Oak 7a | | | | |
| | 0.1241 | -0.0009 | 100.71 | 101.07 |
| | 0.0800 | -0.0007 | 100.88 | |
| | 0.0996 | -0.0016 | 101.61 | |
| EDM 30 | | | | |
| | 0.0583 | -0.0009 | 101.54 | 101.27 |
| | 0.0476 | -0.0005 | 101.05 | |
| | 0.0415 | -0.0005 | 101.20 | |

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|----------|--|---|-----------------|--------|-------------|-------------------------------------|
| Summary: | | Substrates: Aluminum | | | | |
| | | Contaminants: Lubricating/Lapping Oils, Waxes | | | | |
| | | Company Name: | Product Name: | Conc.: | Efficiency: | Effective: |
| | | NuGeneration Technologies, LLC | FluoSolv NC 786 | 100 | | <input checked="" type="checkbox"/> |
| | | Observations: | | | | |

Conclusion: Fluosolv NC-876 was effective in cleaning all five soils using immersion at 80 F for five minutes.