

# 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: Prewieghed 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          |               |

|          |  |   |                 |        |             |                                     |
|----------|--|---|-----------------|--------|-------------|-------------------------------------|
| 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.