

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019
 DateRun: 08/29/2019
 Experimenters: Othon Pagounes
 ClientType:
 ProjectNumber: Project #1
 Substrates: Stainless Steel
 PartType: Coupon
 Contaminants: Oil
 Cleaning Methods: Immersion/Soak
 Analytical Methods: Gravimetric

Purpose: To evaluate an all-purpose degreasing cleaner on the removal of baked-on oil from stainless steel coupons.

Experimental Procedure: Production Soil (200 ml Quench oil, 200 ml cutting oil) was prepared mixing for 20 minutes at room temperature (68°F) using a magnetic stirrer. Approximately 100 mg of the soil was applied to a pre-weighed clean stainless-steel coupon on one side using a handheld swab. Production soil contaminated coupons were baked in an oven for 30 minutes at 105° C (220 ° F). Coupons cooled at room temperature (68°F) before taking dirty weights.

Three coupons were immersed in an unheated, ready-to-use cleaner for 30 minutes. Coupons were rinsed in an unheated DI water bath for 20 minutes before drying in the oven at 105° C for 30 minutes. Coupons cooled to room temperature (68°F) before final weights were recorded.

| Chemistry Evaluated | Initial Wt.(g) Cont. | Final Wt. (g) Cont. | % Cont. Removed | % Overall Removed |
|---|----------------------|---------------------|-----------------|-------------------|
| Crystal Simple Green | 0.0898 | 0.0088 | 90.20 | 83.62 |
| | 0.118 | 0.0099 | 91.61 | |
| | 0.0782 | 0.0242 | 69.05 | |
| Big Wipes Cleaner & Degreaser 4-201-023 | 0.0981 | 0.0108 | 88.99 | 90.36 |
| | 0.0675 | 0.0079 | 88.30 | |
| | 0.0742 | 0.0046 | 93.80 | |

| Substrates: | | Stainless Steel | | | | |
|----------------------|---|-----------------|-------------|-------------------------------------|---------------|--|
| Contaminants: | | Oil | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Simple Green | Crystal Simple Green Industrial Cleaner & Degreaser | 100 | 83.62 | <input type="checkbox"/> | | |
| Sycamore Group | Sycamore Big Wipes | 100 | 90.36 | <input checked="" type="checkbox"/> | | |

Conclusion: Big Wipes Cleaner & Degreaser 4-201-023 was more effective than Crystal Simple Green at removing production soil from stainless steel.