

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2023

DateRun: 02/21/2023

Experimenters: Alicia McCarthy, Namrata Chauhan, Mei Jin

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: DCC-17

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric, Visual

Purpose: To evaluate the efficacy of sludge removal (DCC-17) on a hard surface over a span of 10 days.

Experimental Procedure: Initial weights of fifteen coupons, three per flask, will be recorded before applying 0.25g of DCC-17 to each coupon using a sterile swab. Contaminated weights will be recorded 24 hours after air drying at room temperature. Coupons will be immersed in the solution, either a product/ autoclaved minimal media or a control of deionized (DI) water/ autoclaved minimal media mixture, and incubated at 30°C and shaken (200rpm) for 10 days before final weights and observations are taken.

**Protocol for 1L of Minimal Media:**

- 7.50 g Bacto peptone media
- 3.27g Bushnell Hass Broth
- 1 Liter DI Water

Results: Coupons in the control flask had similar gravimetric and visual removal as the client and comparative products most likely due to the addition of agitation.

| Cleaner  | Final wt. of cont. | %Cont Removed | % AVG |
|--|--------------------|---------------|-------|
| Instant Power RV and Marine Holding Tank Treatment | 0.0012             | 99.52         | 99.63 |
|  | 0.0007             | 99.73         |       |
|  | 0.0009             | 99.65         |       |
| Roebic RV and Marine Holding Tank Treatment        | 0.0031             | 98.79         | 99.05 |
|  | 0.0010             | 99.62         |       |
|  | 0.0031             | 98.73         |       |
| Instant Power Septic Shock                         | 0.0042             | 98.33         | 98.89 |
|  | 0.0022             | 99.14         |       |
|  | 0.0020             | 99.21         |       |
| Roebic Septic System Cleaner                       | 0.0004             | 99.84         | 99.65 |
|  | 0.0006             | 99.76         |       |
|  | 0.0017             | 99.33         |       |
| DI Water   | 0.0018             | 99.30         | 99.15 |
|  | 0.0025             | 99.00         |       |
|  | 0.0022             | 99.14         |       |

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Summary:

|                           |                                      |                             |                    |                                     |                      |
|---------------------------|--------------------------------------|-----------------------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>        |                                      | Stainless Steel             |                    |                                     |                      |
| <b>Contaminants:</b>      |                                      | DCC-17                      |                    |                                     |                      |
| <b>Company Name:</b>      | <b>Product Name:</b>                 | <b>Conc.:</b>               | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Instant Power             | RV & Marine Tank Treatment           | 6.25ml /500ml minimal media | 99.63              | <input checked="" type="checkbox"/> |                      |
| ROEBIC Laboratories, Inc. | RV and Marine Holding Tank Treatment | 6.25ml /500ml minimal media | 99.05              | <input checked="" type="checkbox"/> |                      |
| Instant Power             | Septic Shock                         | 6.25ml /500ml minimal media | 98.98              | <input checked="" type="checkbox"/> |                      |
| ROEBIC Laboratories, Inc. | K-37 Septic Tank Treatment           | 6.25ml /500ml minimal media | 99.65              | <input checked="" type="checkbox"/> |                      |

Conclusion:

The Instant Power RV and Marine Holding Tank Treatment and Septic Shock were as effective as the competitor products at removing sludge from stainless steel.