CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 10/28/2025

Experimenters: Amelia Wagner

ClientType: Cleaner Manufacturer

ProjectNumber: Project #3

Substrates:

PartType: Coupon

Contaminants:

Cleaning Methods:

Analytical Methods: Performance Test, Visual

Purpose: To gather foundational information on the MS LLD regarding its potential use in high efficiency machines. To compare the foaming generation and stability of the MS LLD and baseline high efficiency laundry detergents.

Experimental Procedure:

1. **Prepare solutions:** Create a 0.5% detergent solution by mixing detergent with distilled water. The cleaners tested include MS LLD, Arm & Hammer High Efficiency Laundry Detergent, and Tide High Efficiency Laundry Detergent
2. **Fill test tubes:** Pour 1 ml of the solution into a test tube.
3. **Add water:** Add 5 ml of distilled water to each test tube.
4. **Shake:** Seal the test tube and shake it 10 times to create foam.
5. **Measure foam height:** Measure the amount of foam generated in ml.
6. **Time:** Record the time it takes for the foam to fully dissipate (5 minutes interval)

Results: MS LLD: 10 ml of foam was generated. The foam did not dissipate within 5 minutes.

Arm & Hammer: 5.2 ml of foam was generated. The foam did not dissipate within 5 minutes.

Tide: 5 ml of foam was generated. Foam fully dissipated in 2 minutes 11 seconds

Summary:

Substrates:					
Contaminants:					
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Chemtrax	MS LLD	0.5%	0.00	☐	10 ml of foam generated
Church & Dwight Co Inc.	Arm & Hammer Clean & Simple Liquid Laundry Detergent	0.5%	0.00	☐	5.2 ml of foam generated
Procter & Gamble	Tide Original Liquid Detergent	0.5%	0.00	☐	5 ml of foam generated foam dissipated in 2:11

Conclusion: The MS LLD generated about double the amount of foam from 10 seconds of shaking than the Arm & Hammer and the Tide detergents. The MS LLD foam stability matched that of the Arm & Hammer detergent, while the TIDE detergent exhibited less foam stability.