

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2018

DateRun: 01/31/2018

Experimenters: James Keats

ClientType: Cleaner Manufacturer

ProjectNumber: Project #14

Substrates: Glass/Quartz

PartType: Coupon

Contaminants: None

Cleaning Methods: Low Pressure Spray

Analytical Methods: Gravimetric, Visual

Purpose: To measure amount of cleaner delivered per spray.

Experimental Procedure: Three clean beakers were pre-weighed. The selected cleaner was then held directly above the opening of the beaker and sprayed into each beaker for 2 seconds. The beakers were then reweighed and delivery amounts were calculated. A second test was conducted while holding the aerosol can upright and tipping the beaker to collect the cleaning product

Results: Table 1. Beaker and cleaner weights for vertical spray.

| Cleaner Name                 | Initial Weight (g) | Final Weight (g) | Cleaner Weight (g) | Average Cleaner Weight (g) |
|------------------------------|--------------------|------------------|--------------------|----------------------------|
| Foaming Glass Cleaner Clorox | 100.8900           | 102.2000         | 1.31               | 1.57                       |
|                              | 113.0600           | 114.9100         | 1.85               |                            |
|                              | 99.5618            | 101.1229         | 1.56               |                            |
| Foaming Glass Cleaner Windex | 106.0834           | 107.5300         | 1.44               | 1.61                       |
|                              | 106.5807           | 108.1500         | 1.56               |                            |
|                              | 102.2352           | 104.0700         | 1.83               |                            |

Table 2. Beaker and cleaner weights for horizontal spray

| Cleaner                      | Beaker | Initial Wt (g) | Final Wt (g) | Cleaner Wt (g) | Avg Cleaner Wt. (g) |
|------------------------------|--------|----------------|--------------|----------------|---------------------|
| Foaming Glass Cleaner Clorox | 1      | 101.5675       | 102.4545     | 0.8870         | 0.6392              |
|                              | 2      | 101.2540       | 101.6789     | 0.4249         |                     |
|                              | 3      | 107.6430       | 108.2487     | 0.6057         |                     |
| Foaming Glass Cleaner Windex | 1      | 105.5278       | 106.2059     | 0.6781         | 0.6327              |
|                              | 2      | 104.7243       | 105.4784     | 0.7541         |                     |
|                              | 3      | 96.7777        | 97.2435      | 0.4658         |                     |

Summary:

|                      |                              |               |                    |                                     |                      |
|----------------------|------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>   | Glass/Quartz                 |               |                    |                                     |                      |
| <b>Contaminants:</b> | None                         |               |                    |                                     |                      |
| <b>Company Name:</b> | <b>Product Name:</b>         | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Brand Buzz           | Clorox Foaming Glass Cleaner | 100%          | 1.57               | <input checked="" type="checkbox"/> |                      |
| SC Johnson & Son Inc | Windex Foaming Glass Cleaner | 100%          | 1.61               | <input checked="" type="checkbox"/> |                      |

Conclusion: Both systems delivered cleaner at very similar rates, although Foaming Glass Cleaner Windex delivering slightly more product than the Clorox product did.