



Report Date: February 19, 2020

Report #: 24458-19-02-2020

Client: Plant Therapy
510 2nd Ave S
Twin Falls, ID, USA

Test: HCPA DCC-09A Standard Guide for Evaluating the Filming and Streaking of Glass Cleaners.

Samples:

Sample Name	LC#	Test Dilution
Glass Cleaner EO Blend @ 1.4% (concentrate) Lab# 21424-4	20-0060	2 oz. glass cleaner concentrate in 14 oz. tap water.

Procedure:

To evaluate filming and streaking, pre-cleaned mirrors are wiped in 5 back and forward cycles (ten total passes) using a fresh sample wipe for each mirror. The residue from the product is observed and qualitatively rated. Filming and streaking are evaluated separately, with filming being recognized as an overall cloudiness or haziness and streaking being recognized as dried droplets or strings of droplets forming lines. Reference solutions are prepared and are used to generate standard and reproducible levels of both filming and streaking as separate phenomena.

Rating - Filming and Streaking Performance

Filming is defined as "haziness" or overall "milkyiness". Streaking is defined as dried droplets or "spotting", usually found strung together into thin white lines.

5 mirrors for each sample are evaluated individually by five panelists separately for each of filming and streaking (i.e., product residues without added soil), according to a scale of "1" to "7":

Filming

1 = no visible filming
(excellent performance)

7 = high filming
(poor performance)

Streaking

1 = no visible streaking
(excellent performance)

7 = high streaking
(poor performance)

Standard reference solutions are used to create reference panels with ratings of "1", "3", "5" and "7" for the panelist to compare against. The test panels can then be compared to these standard levels of residue.

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Results:

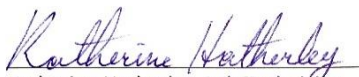
Sample Name	Average Streaking	SD	Average Filming	SD
Glass Cleaner EO Blend @ 1.4% (concentrate) Lab# 21424-4	1.4	0.50	1.6	0.49

**5 replicates for each product were tested*

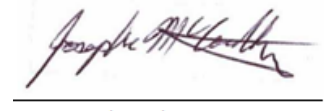
Conclusion:

Under the conditions of this test a 2 oz. glass cleaner concentrate in 14 oz. tap water dilution of Glass Cleaner EO Blend @ 1.4% (concentrate) Lab# 21424-4 leaves almost no streaking or filming.

Tested by:


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Approved by:


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