CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 08/22/2021

Experimenters: Nicole Kebler, Edward Judge

ClientType: Cleaner Manufacturer

ProjectNumber: Project #2

Substrates: Glass/Quartz, Chrome

PartType: Coupon

Contaminants: Glass

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To evaluate the effectiveness of Amazon Aware Glass Cleaner in the removal of Glass Soil from chrome and glass substrates.

Experimental Procedure: An Amazon Aware Glass Cleaner solution was created by mixing 2 tablets in 16 fl oz of water and a Windex Glass Cleaner solution was gathered as a comparison product. Then, 3 coupons of each substrate (chrome and glass) were collected, and initial weights were taken. Glass Soil was applied to each coupon and allowed to air dry for 24 hours. After the 24-hour dry time, the weights of the newly contaminated coupons were measured. All coupons were placed into a Gardner-scrub Abrasion Tester machine. Wypall cleaning cloths were attached to each of the 3 cleaning blocks used for the test. Each Wypall cloth and all coupons received 2 sprays of the Amazon Aware Glass Cleaner and Windex solutions, and the Gardner-scrub Abrasion Tester was run for 20 repetitions, simulating 20 manual wipes. Once cleaning concluded, the cleaned coupons were allowed to air dry for 24 hours. After 24 hours, the weights of the cleaned coupons were measured.

Cleaners:

A: Amazon Aware Glass Cleaner

B: Windex Glass Cleaner

Substrates:

1. Chrome

2. Glass

Results:

Cleaner	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	% AVG	% Overall
A	1	0.0550	0.0092	83.27	84.71	81.78
		0.0700	0.0084	88.00		
		0.0676	0.0080	88.17		
	2	0.0549	0.0113	79.42	78.85	
		0.0550	0.0118	78.55		
		0.0556	0.0119	78.60		
B	1	0.0732	0.0072	90.16	86.77	83.56
		0.0640	0.0081	87.34		
		0.0774	0.0070	90.96		
	2	0.0557	0.0119	78.64	80.35	
		0.0567	0.0115	79.72		
		0.0647	0.0112	82.69		

Amazon Aware glass cleaner had 85% removal on chrome and 79% removal on glass. Windex had 87% removal on chrome and 80% removal on glass. Overall, Amazon Aware had a total removal of 82% and Windex had a total removal of 84%.

Summary:

Substrates:	Glass/Quartz, Chrome				
Contaminants:	Glass				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Sunstate Laboratory LLC	Sunstate Glass Cleaning Tablet	2 tablets in 16 fl oz	82.00	☑	Sunstate Glass Cleaning Tablet was 82% effective at removing soil from all three substrates.
		RTU	84.00	☑	

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SC Johnson & Son Inc	Windex Glass Original w/ Ammonia-D				Windex performed better than Sunstate Glass Cleaning Tablet at 84% effectiveness for both substrates.

Conclusion: Amazon Aware Glass Cleaner was not as effective in the removal of Glass Soil from chrome and glass substrates as the comparison product.