CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

DateRun: 11/12/2019

Experimenters: Sabrina Apel, Zoe Lawson, Phillip Demers, Ross Goding

ClientType: Cleaner Manufacturer

ProjectNumber: Project #18

Substrates: Textile

PartType: Part

Contaminants: Odor

Cleaning Methods: Low Pressure Spray

Analytical Methods: Smell

Purpose: To evaluate the effectiveness products at reducing odor on practice jerseys.

Experimental Procedure: A total of six penny jerseys were laid out. Five penny jerseys were treated with sprays while the remaining penny jersey was used as a control. The five penny jerseys that were sprayed, were each sprayed once with its own respective cleaner. An initial odor rating was then taken using a panel of three evaluators according to the rating system (see below). The penny jerseys were then rated after Day 1, 2, and 5.

Rating key:	
1	Severe Malodor
2	Noticeable Malodor
3	No Malodor

Results:

Cleaner	Treatment	Panelist 1	Panelist 2	Panelist 3	Average	Overall Average
Control	Initial Untreated	1	1	0	0.7	1.00
	Day 1 Untreated	2	1	1	1.3	
	Day 2 Untreated	2	1	1	1.3	
	Day 5 Untreated	1	0	1	0.7	
1	Initial Spray	2	2	2	2.0	1.63
	Day 1 Untreated	2	2	2	2.0	
	Day 2 Untreated	1	1	1	1.0	
	Day 5 Untreated	2	1.5	1	1.5	
2	Initial Spray	1	0	1	0.7	1.13
	Day 1 Untreated	2	2	1	1.7	
	Day 2 Untreated	2	2	1.5	1.8	
	Day 5 Untreated	1	0	0	0.3	
3	Initial Spray	2	1	1.5	1.5	0.92
	Day 1 Untreated	1	1	1	1.0	
	Day 2 Untreated	1	1	0.5	0.8	
	Day 5 Untreated	0	1	0	0.3	
4	Initial Spray	0	1	1	0.7	1.58
	Day 1 Untreated	2	2	2	2.0	

CLEANING LABORATORY EVALUATION SUMMARY

	Day 2 Untreated	2	2	2	2.0	
	Day 5 Untreated	2	2	1	1.7	
5	Initial Spray	2.5	2..5	2	2.3	2.19
	Day 1 Untreated	2.5	2.5	2	2.3	
	Day 2 Untreated	2	2.5	2	2.2	
	Day 5 Untreated	2	2	2	2.0	

Average Scores

	Initial Treatment	Day 1 Untreated	Day 2 Untreated	Day 5 Untreated
Febreze Spring & Renewal	2.0	2.0	1.0	1.5
Clorox Scentiva Multi-Use Hawaiian Sunshine	0.7	1.7	1.8	0.3
Clorox Scentiva Brazilian Blossoms	1.5	1.0	0.8	0.3
Clorox Scentiva Pacific Breeze Coconut	0.7	2.0	2.0	1.7
Clorox Scentiva Tuscan Lavender Jasmine	2.3	2.3	2.2	2.0

Differences of Average Scores Between Tests

	Initial Treatment	Day 1 Untreated	Day 2 Untreated	Day 5 Untreated
Febreze Spring & Renewal	0	0	-1.0	+0.5
Clorox Scentiva Multi-Use Hawaiian Sunshine	0	+1.0	+0.1	-1.5
Clorox Scentiva Brazilian Blossoms	0	-0.5	-0.2	-0.5
Clorox Scentiva Pacific Breeze Coconut	0	+1.3	0	-0.3
Clorox Scentiva Tuscan Lavender Jasmine	0	0	-0.1	-0.2

Summary

Product Name	Original Rating	Day 1 Rating	Day 2 Rating	Final Rating	Overall Difference
	2	2.0	1.0	1.5	-0.5

CLEANING LABORATORY EVALUATION SUMMARY

Febreze Spring & Renewal					
Clorox Scentiva Multi-Use Hawaiian Sunshine	0.7	1.7	1.8	0.3	-0.4
Clorox Scentiva Brazilian Blossoms	1.5	1	0.8	0.3	-1.2
Clorox Scentiva Pacific Breeze Coconut	0.7	2.0	2.0	1.7	+1.0
Clorox Scentiva Tuscan Lavender Jasmine	2.3	2.3	2.2	2.0	-0.3

Summary:

Substrates:	Textile
Contaminants:	Odor

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Procter & Gamble	Febreze FABRIC Spring & Renewal	100%	1.50	☑	Final Odor Rating
Clorox Company	Clorox Scentiva Multi Surface Cleaner Spray Bottle Bleach Free - Hawaiian Sunshine	100%	0.30	☑	Final Odor Rating
Clorox Company	Clorox Scentiva Multi Surface Cleaner Spray Bottle Bleach Free - Fresh Brazilian Blossoms	100%	0.30	☑	Final Odor Rating
Clorox Company	Clorox Scentiva Multi Surface Cleaner Spray Bottle Bleach Free - Pacific Breeze and Coconut	100%	1.70	☑	Final Odor Rating
Clorox Company	Clorox Scentiva Multi Surface Cleaner Spray Bottle Bleach Free - Tuscan Lavender & Jasmine	100%	2.00	☑	Final Odor Rating

Conclusion:

Clorox Scentiva Pacific Breeze Coconut was shown to be the most effective over time as the odor rating increased from the original by 1.0. Febreze Spring & Renewal and Clorox Scentiva Multi-Use Hawaiian Sunshine were shown to be similarly effective as they reduced the original rating by -0.5 and -0.4 respectively. Clorox Scentiva Tuscan Lavender Jasmine remained constant in odor over the rating period with the original rating only being reduced by -0.3. Clorox Scentiva Brazilian Blossoms was shown to be the least effective in maintaining a good rating with an overall difference of -1.2.