

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2015
 DateRun: 06/10/2015
 Experimenters: Loc Nguyen, George Liang, Russell Curtis, Michael McDermott
 ClientType: Cleaner Manufacturer
 ProjectNumber: Project #1
 Substrates: Liquid
 PartType: Coupon
 Contaminants: Odor
 Cleaning Methods: Low Pressure Spray
 Analytical Methods: Smell
 Purpose: To evaluate supplied products for malodor elimination

Experimental Procedure: Clean carpet was cut into seven 2 in x 4 in rectangular strips. A panel of three then examined the odors to determine the baseline values using seven bottles, including a control. These strips were placed into glass bottles and the cat urine was directly applied to the carpet to determine baseline dirty odor characteristics. Each panelist was asked to describe the odor and rank the level of intensity of the malodor. After the panelists observed the initial odors, bottles were recapped and allowed to sit overnight for three days. After aging the contaminated carpets, each bottle was subjected to rounds of cleaning agent treatments and each panelist was used to assess malodor levels after each cycle of treatment. Treatments of contaminated bottles are stopped after the 3rd cycle of treatment. An effective cleaner will have a malodor level of under 2 after the 3rd round of treatment. The ranking of malodor level is as follows: 1 being close to no smell of malodor to 5 being the worse malodor level. Then the malodor was allowed to sit overnight to determine if there was any change of malodor levels. If there is a high increase in malodor level that results in a malodor level of 2 and higher; an additional spray of treatment is applied onto the carpet to see if the cleaning agent can eliminate the increased malodor from the overnight sit.

Chemistries Evaluated: RS040715A-1, Time-Release Turb

Results:

Cleaner	RS040715A-1	Baseline		Average
Bottle 1	5	5	5	5
Bottle 2	5	5	5	5
Bottle 3	5	5	5	5
			% Average: 5.0	
Cleaner	RS040715A-1	Sprays: 2		Average
Bottle 1	4.5	4.5	4	4.3
Bottle 2	3.5	3.5	3	3.3
Bottle 3	5	5	5	5
			% Average: 4.2	
Cleaner	RS040715A-1	Sprays: 4		Average
Bottle 1	1.5	3	2	2.2
Bottle 2	1	3	3	2.3
Bottle 3	3.5	4	5	4.2
			% Average: 2.9	
Cleaner	RS040715A-1	Sprays: 6		Average
Bottle 1	1	3	2	2

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Bottle 2	1	2	3	2
Bottle 3	3	3.5	4	3.5
			% Average: 2.5	
Cleaner	Time-Release Turb	Baseline		Average
Bottle 1	5	5	4.5	4.8
Bottle 2	5	5	4.7	4.9
Bottle 3	5	5	4.8	4.9
			% Average: 4.9	
Cleaner	Time-Release Turb	Sprays: 2		Average
Bottle 1	3.5	3.5	3.5	3.5
Bottle 2	2.5	3.5	3.5	3.2
Bottle 3	2.5	2.5	3	2.7
			% Average: 3.1	
Cleaner	Time-Release Turb	Sprays: 4		Average
Bottle 1	1	2	2.5	1.8
Bottle 2	1	2.5	2.5	2
Bottle 3	1	2.5	2	1.8
			% Average: 1.9	
Cleaner	Time-Release Turb	Sprays: 6		Average
Bottle 1	1	1.5	1	1.2
Bottle 2	1	2	2.5	1.8
Bottle 3	1	2	2	1.7
			% Average: 1.6	

Summary Table

Cleaner	Sprays	% Average
RS040715A-1	6	2.5
Time-Release Turb	6	1.6

Overnight

Cleaner	RS040715A-1	Overnight		Average
Bottle 1	3.5	4.5	5	4.3
Bottle 2	3	2.5	3	2.8
Bottle 3	5	4.5	5	4.8
				% Average: 4.0
Cleaner	RS040715A-1			Average

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		Sprays: 2 Overnight		
Bottle 1	1.5	3.8	3.5	2.9
Bottle 2	2	2	1.5	1.8
Bottle 3	5	4	4	4.3
				% Average: 3.0
Cleaner	Time-Release Turb	Overnight		Average
Bottle 1	1	2.5	2	1.8
Bottle 2	1	3.5	2	2.2
Bottle 3	1	2	2	1.7
				% Average: 1.9

Overnight Summary Table

Cleaner	Overnight Avg.	After Spray
RS040715A-1	4	3
Time-Release Turb	1.9	

Summary:

Substrates:	Liquid				
Contaminants:	Odor				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Fetch 4 Pets	Fetch 4 Pets RS040715A	100	0.00	<input type="checkbox"/>	
Fisher Scientific	Absolute Ethanol	0	0.00	<input type="checkbox"/>	

Conclusion:

A cleaner is considered effective once it has reached a malodor level that is under 2 within 3 cycles of treatment. The most effective cleaning agent at removing malodor level is Time-Release Turb. After 2 cycles of treatments, the malodor level has reached a respective rating of 1.9. Whereas after 3 cycles of treatments of cleaning agent RS040715A-1 on the contaminated bottles; the malodor level has decreased to 2.5. Cleaning agent RS040715A-1 is partially effective at eliminating the malodor level.

After an overnight sit, cleaning agent RS040715A-1 was reevaluated with an additional spray; because its malodor level has increased pass a malodor level of 2; with a respective malodor level of 4.0. That is an increase of 1.5 malodor level after letting it sit overnight. After the additional cycle of spray, cleaning agent RS040715A-1 was not able to eliminate the malodor level increase from the overnight sit. Whereas Time-Release Turb treated bottles had a malodor level increase of 0.3 from the overnight sit; with a respective malodor level of 1.9. Time-Release Turb did not have a significant increase in malodor overnight. Overall, the best cleaning agent at eliminating malodor level is Time-Release Turb.