CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	08/11/2021
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ClientType:	
ProjectNumber:	Project #2
Substrates:	Carpet
PartType:	Coupon
Contaminants:	Urine
Cleaning Methods:	Low Pressure Spray
Analytical Methods:	Smell
Purpose:	To evaluate the effectiveness of odor removal of cat urine on carpet.
Experimental Procedure:	Clean carpet was cut into eighteen 2 in x 1 in rectangular strips. These strips were placed into glass bottles and the cat urine was directly applied to the carpet (about 2ml). The cat urine had been aged for 2 days to determine dirty odor characteristics. A panel of five people examined the odors to determine the baseline values using 18 bottles, including three controls. Each panelist was asked to describe the aged cat urine odor carpets and to rank the level of intensity of the malodor; from 1 being no malodor to 5 being high malodor levels. Afterwards, each bottle was subjected to rounds of cleaning agent treatment, one treatment cycle consists of 2 sprays and each panelist was used to assess malodor levels after each cycle of treatment. One of the five cleaners were each assigned to a set of three carpet strips out of the eighteen carpet strips total. Treatments of contaminated bottles are stopped after three treatment cycles. The bottles were then allowed to age overnight. Following the overnight sit, panelists were asked to determine the bottles' malodor ratings to obtain an increase in malodor baseline from the day after it was treated. The bottles were subject to one last treatment cycle before the final set of malodor ratings were performed. An effective cleaner will have a malodor level of under 2 after the 3rd round of treatment.
Results:	table 1

Cleaner:	Funk Away 1B							
Treatment	Bottle	Panelist/ Ratings					Average Rating	Overall Average Rating
		I	II	III	IV	V		
None	A	5	5	4	4	5	4.6	4.5
	B	5	4	5	3	5	4.4	
	C	5	4	5	5	4	4.6	
2 sprays	A	5	2	2	2	3	2.8	2.8
	B	5	3	1	3	2	2.8	
	C	5	3	2	3	1.5	2.9	
4 sprays	A	2	2	1	2.5	1	1.7	1.9
	B	2.5	2	1	2	1	1.7	
	C	2	3	2	3	1	2.2	
6 sprays	A	1	2	1	2.5	1	1.5	1.5
	B	1	1	1	2.5	1	1.3	
	C	2	2	1	2.5	1	1.7	
Overnight	A	2	4	2	2	1.5	2.3	2.6
	B	2	3	4	3	1.5	2.7	
	C	3	3	4	3.5	1	2.9	
8 sprays	A	1.5	2	1	2	1.5	1.6	1.8
	B	1	3	2	2.5	1	1.9	
	C	1	3	2	2	2	2	
Total Average Change: 2.7								

Funk Away version 1B is considered an effective cleaner, after eight sprays the rating was 1.8 and had an overall change of 2.7 points.

Cleaner:	Funk Away 2B							
Treatment	Bottle	Panelists/ Ratings					Average Rating	Overall Average Rating
		I	II	III	IV	V		

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None	A	5	4	2	2	5	3.6	3.9
	B	5	5	3	3	3	3.8	
	C	4.5	5	4	5	3	4.3	
2 sprays	A	2	5	1	2	1	2.2	2.0
	B	2	4	1	2	1	2	
	C	1.5	4	1	1.5	1.5	1.9	
4 sprays	A	1	2	3	2	1	1.8	2.0
	B	1.5	3	3	3	2	2.5	
	C	1	2	2	2	1.5	1.7	
6 sprays	A	1	2	3	1	1	1.6	1.6
	B	1	3	1	2	1	1.6	
	C	1	2	1	2	1.5	1.5	
Overnight	A	1	4	1	2	1	1.8	1.8
	B	1	4	1	2	1	1.8	
	C	1	3	2	2	1	1.8	
8 sprays	A	1	3	1	2	1.5	1.7	1.7
	B	1.5	2	1	3	1	1.7	
	C	1	3	1	2	1	1.6	
Total Average Change: 2.2								

Funk Away version 2B had an average score of 1.7 after 8 sprays and is considered an effective cleaner, it had an overall average change of 2.2.

Cleaner:	Funk Away 1C							
Treatment	Bottle	Panelists/ Ratings						
		I	II	III	IV	V	Average	Treatment Average
None	A	5	5	5	5	4	4.8	4.5
	B	5	3	5	3	5	4.2	
	C	5	4	3	5	5	4.4	
2 sprays	A	4	3	3	5	2	3.4	2.9
	B	3	3	3	3	2	2.8	
	C	3.5	3	2	2	1.5	2.4	
4 sprays	A	3	4	2	4	3	3.2	2.6
	B	3	3	1	4.5	2	2.7	
	C	2.5	2	1	3	1	1.9	
6 sprays	A	1	3	2	3.5	2	2.3	2.2
	B	1	2	2	3.5	2	2.1	
	C	2	2	1	3.5	2.5	2.2	
Overnight	A	2	3	4	3	1.5	2.7	2.7
	B	2.5	4	4	3	2	3.1	
	C	1.5	3	2	3.5	1	2.2	
8 sprays	A	2	4	1	2	2	2.2	2.0
	B	2	3	1	1.5	1	1.7	
	C	2.5	4	2	1	1	2.1	
Total Average Change: 2.5								

Funk Away version 1C had a score of 2 after the last treatment cycle, since it is not below 2 it would not be considered fully effective. It had an overall change of 2.5.

Cleaner:	Funk Away 2C						
		Panelists					
Treatment	Bottle	I	II	III	IV	V	Average	Treatment Average
None	A	5	5	3	5	3	4.2	4.1
	B	4.5	5	3	4.5	5	4.4	
	C	5	4	2	4	3	3.6	
2 sprays	A	4	4	2	1	1	2.4	2.5
	B	5	4	1	1	2	2.6	
	C	4	5	1	1	1	2.4	
4 sprays	A	1	1	4	1	1	1.6	1.6

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	B	2	1	2	1	1	1.4	
	C	1	3	2	2	1	1.8	
6 sprays	A	1	2	1	1	1	1.2	1.5
	B	1	2	2	1.5	1	1.5	
	C	1	3	2	1.5	1	1.7	
Overnight	A	1.5	4	1	1	1	1.7	1.8
	B	1.5	4	3	1	1	2.1	
	C	2	3	1	1.5	1	1.7	
8 sprays	A	1	3	1	1	1	1.4	1.5
	B	2	3	1	1	1	1.6	
	C	1	3	1	1	2	1.6	
Total Average Change: 2.6								

Funk Away version 2C was effective with a score of 1.5 and an overall rating change of 2.6.

Cleaner:	Febreeze							
		Panelists						
Treatment	Bottle	I	II	III	IV	V	Average	Treatment Average
None	A	4.5	3	5	5	5	4.5	4.0
	B	4.5	4	4	2	5	3.9	
	C	5	4	3	3	3	3.6	
2 sprays	A	2	2	1	5	1	2.2	2.6
	B	2	4	1	4.5	1	2.5	
	C	2	5	2	5	1	3	
4 sprays	A	1	1	1	3	1.5	1.5	1.7
	B	1.5	3	1	2.5	2	2	
	C	1	2	1	2.5	1	1.5	
6 sprays	A	1	1	1	3	1	1.4	1.5
	B	1	1	1	3	1.5	1.5	
	C	1	2	2	2	1	1.6	
Overnight	A	1	2	4	2	1	2	2.0
	B	1	2	1	3	1.5	1.7	
	C	1	4	3	2.5	1	2.3	
8 sprays	A	1	3	1	1	1	1.4	1.5
	B	1.5	2	1	1.5	1	1.4	
	C	1	3	1	2	1	1.6	
Total Average Change: 2.5								

The comparative product febreeze was effective for the removal of odor with a score of 1.5 after the last treatment and an overall change of 2.5.

Cleaner:	Control
Treatment	Treatment Average
None	4.6
2 sprays	4.8
4 sprays	4.9
6 sprays	5.0
Overnight	4.9
8 sprays	5.0
Total Average Change: +0.4	

The control continued to have a malodor throughout the testing and had a positive overall change of 0.4 points.

Summary:

Conclusion: All Funk Away versions except 2C had a score lower than two after the final treatment. Funk Away version 2C performed the best with a score of 1.5 and an overall change of 2.6. All versions of Funk Away were similar to the comparative product in final rating and overall change.