CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2019
DateRun:	01/06/2019
Experimenters:	Phillip Demers
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #16
Substrates:	Carpet
PartType:	Coupon
Contaminants:	Carbon Deposits, Inks, Dirt, Clay, Oil, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Visual
Purpose:	To evaluate the effectiveness of spot and stain removal chemicals by rating the removal of specific staining agents.

Experimental Procedure:

A set of two almond white tufted test carpets were cut, eight individual 7.0 x 3.0 in. per set. Each individual carpet, in a set, were indented three times and soiled with one contaminant (mustard, catsup, hot coffee, purple grape juice, black marker, dirty motor oil, AATCC synthetic soil and chocolate syrup). The staining agents were each poured into a spray bottle and applied three sprays to the center of each staining ring. The sets were dried for 24 hours (+/- two hours) before conducting stain removal.

Staining Agent:	Dilution Ratio:
Mustard	1:2 mustard: water
Catsup	1:3 catsup: water
Hot Coffee 60 +/- 3° C	1 Teaspoon coffee to 175 mL water
Purple Grape Juice	Full concentration
Black Marker	N/A
Dirty Motor Oil	Full concentration
AATCC Synthetic Soil	0.5 grams/ 100 mL of water
Chocolate Syrup	1:4 chocolate: water

Following the overnight aging, any excess solid staining agent was removed from the test carpet. Cleaner 1 was applied to saturate set one. The process was repeated for Cleaner 2. The solutions were allowed to sit on the stain for two minutes. The saturated stain was blotted with a Kimberly Clark Reinforced wiper towel. Any transfer of the stain or cleaner to the towel was noted. Blotting continued until the stain was completely removed or three applications of the cleaning solution were performed. The total number of applications were recorded for each stain. The sets were allowed to sit for another 24 (+/- two hours) before evaluating the stains.

A minimum of three lab personnel were used to evaluate the stain removal efficacy which were then averaged together for the final rating. The evaluations were based on the following scale.

Rating key:	
1	No stain
2	Slight Stain
3	Noticeable Stain
4	Considerable Stain
5	Severe Stain

Results:

Both cleaners were effective at removing hot coffee, grape juice, and catsup stains from the carpets, and both had an overall visual cleanliness rating of approximately 3.8 in removing hot coffee. Cleaner 1 removed synthetic soil, grape juice, hot coffee and catsup effectively (3.2 and above). Cleaner 2 removed grape juice, hot coffee, catsup, and mustard effectively (3.2 and above).

Both cleaners had slight effectiveness at removing motor oil, chocolate syrup and black marker.

Cleaner: 1

Soil Type	Clean Visual Rating			Average Clean	Overall Average Clean
Mustard	1	2	3		
	1.00	2.50	2.00	1.00	1.72
	1.00	2.00	2.00	2.17	
	1.00	2.00	2.00	2.00	

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Catsup	2.50	4.00	3.00	2.67	3.22
	2.50	4.00	3.00	4.00	
	3.00	4.00	3.00	3.00	
Hot Coffee	3.00	3.50	3.00	3.83	3.78
	4.00	4.00	4.00	3.83	
	4.50	4.00	4.00	3.67	
Grape Juice	3.00	4.00	4.00	3.33	3.89
	3.00	4.00	4.00	4.17	
	4.00	4.50	4.50	4.17	
Black Marker	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00	1.00	
	1.00	1.00	1.00	1.00	
Motor Oil	1.00	3.50	3.00	1.00	2.56
	1.00	3.50	3.00	3.67	
	1.00	4.00	3.00	3.00	
Synthetic Soil	4.00	5.00	5.00	4.00	4.67
	4.00	5.00	5.00	5.00	
	4.00	5.00	5.00	5.00	
Chocolate Syrup	3.50	3.50	2.00	3.83	3.06
	3.50	3.50	2.00	3.33	
	4.50	3.00	2.00	2.00	

Cleaner: 2

Soil Type	Clean Visual Rating			Average Clean	Overall Average Clean
Mustard	1	2	3		
	3.00	3.00	3.50	3.00	3.28
	3.00	3.50	3.50	3.33	
	3.00	3.50	3.50	3.50	
Catsup	4.00	3.50	3.00	4.17	3.67
	4.50	4.00	3.00	3.83	
	4.00	3.50	3.00	3.00	
Hot Coffee	4.00	4.00	3.50	4.00	3.83
	3.50	3.00	3.50	4.00	
	4.50	5.00	3.50	3.50	
Grape Juice	4.50	4.50	4.00	4.50	4.11
	4.50	3.00	4.00	3.83	
	4.50	4.00	4.00	4.00	
Black Marker	2.00	3.00	2.50	2.00	2.50
	2.00	3.00	2.50	3.00	
	2.00	3.00	2.50	2.50	
Motor Oil	4.00	2.50	2.00	4.00	2.61
	4.00	1.50	2.00	1.83	
	4.00	1.50	2.00	2.00	
Synthetic Soil	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00	1.00	
	1.00	1.00	1.00	1.00	
Chocolate Syrup	1.50	2.50	2.50	1.50	2.17
	1.50	2.50	2.50	2.50	
	1.50	2.50	2.50	2.50	

Visual Summary

Contaminant: Mustard		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	1.7
Cleaner 2		3.3
Contaminant: Catsup		
Product Name	Conc.	Visual Rating

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Cleaner 1	RTU	3.2
Cleaner 2		3.6
Contaminant: Hot Coffee		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	3.8
Cleaner 2		3.8
Contaminant: Grape Juice		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	3.9
Cleaner 2		4.1
Contaminant: Black Marker		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	1
Cleaner 2		2.5
Contaminant: Motor Oil		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	2.6
Cleaner 2		2.6
Contaminant: Synthetic Soil		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	4.7
Cleaner 2		1
Contaminant: Chocolate Syrup		
Product Name	Conc.	Visual Rating
Cleaner 1	RTU	3.1
Cleaner 2		2.2

Summary:

Substrates:	Carpet				
Contaminants:	Carbon Deposits, Inks, Dirt, Clay, Oil, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brand Buzz	Jenny Carpet Cleaner	100%	2.99	☑	Visual Rating
Brand Buzz	Rejoice Carpet Cleaner	100%	2.90	☑	Visual Rating

Conclusion: Rejoice Carpet Cleaner is just as effective as Jenny Capet Cleaner at removing staining agents from carpet.