CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

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ClientType:

ProjectNumber: Project #1

Substrates: Liquid

PartType: Coupon

Contaminants: Odor, Food

Cleaning Methods: Immersion/Soak

Analytical Methods: Smell

Purpose: To evaluate the effectiveness of E-Mop with 5 g salt and Febreze Fabric Free Nature on the elimination of unwanted odors.

Experimental Procedure: A total of seven clean glass bottles were each filled with ten milliliters of whole milk. Six of these bottles were treated by formulations and the remaining one bottle was used as a control. All bottles were capped and stored in a room for six days at room temperature (68 °F). After the six-day spoiling period, the bottles were opened and a panel of five observed for signs of spoiling odor, according to the rating system (see below). Three bottles were reserved for each formulation, and two sprays of the respective formulations were sprayed into each bottle. After swirling the contaminants in the bottle ensuring a mixture, the odor panel graded each bottle with their ratings recorded. This process continued by introducing two sprays into each bottle of its respective formulation and rating until six spays were reached. The bottles containing the spoiled milk were stored once again at room temperature and sat overnight. All testing bottles were rated the next day with no treatment, and then an additional two sprays were added before final ratings. E-Mop with 5 g salt was used at a temperature of 71 °F and a pH of 8, and Febreze Fabric Free Nature was used at a temperature of 74.7 °F and a pH of 6.

The following rating system was used to assess the malodor of the spoiled milk: 1 = No Malodor 5 = High Malodor

Results: Overnight, E-Mop with 5 g salt and Febreze Fabric Free Nature increased the malodor rating. Overall, after treating each bottle with formulation with 8 sprays, E-Mop with 5 g salt slightly changed the malodor rating and Febreze Fabric Free Nature Formulation did not significantly change the malodor rating compared to the original malodor rating of each bottle.

Cleaner	Treatment	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Average	Overall Average
Control	Original Untreated (6 days)	3.5	3	3	3.5	3	3.2	3.2
	Overnight Untreated	3	4	3.5	3	5	3.7	3.7
E-Mop with 5 g salt	Original Untreated (6 days)	3.5	4	4	4	4	3.9	3.9
		5	4	4.5	5	3	4.3	
		4	3	4	4.5	2	3.5	
	2 Sprays	4.5	3.5	3.5	3.5	3	3.6	3.9
		4.5	4	4.5	5	3	4.2	
		4	5	4	4	2.5	3.9	
	4 Sprays	3	3	3	3	3	3	3.1
		2.5	3	4	4.5	2.5	3.3	
		2.5	3	4	3.5	2.5	3.1	
	6 Sprays	3	3	3	2.5	2.5	2.8	2.8
		2	2.5	3.5	3	2	2.6	
		2.5	3	4	3	2.5	3	
	Overnight	4	2.5	4	4.5	4.5	3.9	3.8
		3	3.5	5	4	3.5	3.8	
		3	3.5	4.5	3.5	3.5	3.6	
	8 Sprays	3.5	3	4	3.5	4	3.6	3.4
		3	2.5	4.5	4	2.5	3.3	
		3.5	3	4	3.5	3	3.4	
Febreze Fabric Free		4	5	4	3.5	5	4.3	3.9

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Nature Formulation	Original Untreated (6 days)	4	5	4	4.5	5	4.5	
		3	4	2	2	4	3	
	2 Sprays	3	4	3	3	5	3.6	4.0
		4	5	4	5	5	4.6	
		2	5	3.5	3.5	5	3.8	
	4 Sprays	4	3	3.5	3.5	4	3.6	3.7
		4	5	4.5	5	5	4.7	
		1	4	2	2	5	2.8	
	6 Sprays	4	4	4	3.5	5	4.1	3.7
		2	5	4.5	5	5	4.3	
		1	4	2	1.5	5	2.7	
	Overnight	5	4	4	3	5	4.2	4.3
		5	5	5	5	5	5	
		1	5	4	4	4.5	3.7	
	8 Sprays	4.5	5	4	2.5	5	4.2	3.9
		5	5	4.5	4	5	4.7	
		1	4	3	1.5	4.5	2.8	

Average Scores

	Original Untreated (6 Days)	2 Sprays	4 Sprays	6 Sprays	Overnight	8 Sprays
E-Mop with 5 g salt	3.90	3.90	3.13	2.80	3.77	3.43
Febreze Fabric Free Nature Formulation	3.93	4.00	3.7	3.7	4.3	3.9

Differences of Average Scores Between Tests

	Original Untreated (6 Days)	2 Sprays	4 Sprays	6 Sprays	Overnight	8 Sprays	Overall
E-Mop with 5 g salt	0	0	-0.77	-0.33	+0.97	-0.34	-0.47
Febreze Fabric Free Nature Formulation	0	+0.07	-0.30	0.00	+0.60	-0.40	-0.03

Summary:

Substrates:	Liquid				
Contaminants:	Odor, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Thane Direct Inc	E Mop	5 g salt	0.00	☑	
Procter & Gamble	Febreze FABRIC Spring & Renewal	100	0.00	☑	

Conclusion:

E-Mop with 5 g salt was observed to be slightly more effective than and the comparative formulation, Febreze Fabric Free Nature Formulation, in eliminating the malodor of spoiled milk. Febreze Fabric Free Nature Formulation was observed to not significantly reduce the original malodor of the spoiled milk. Overall, E-mop with 5 g salt reduced the original rating by 0.47, and Febreze Fabric Free Nature Formulation reduced the original rating by 0.03.