

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2023
 DateRun: 03/06/2023
 Experimenters: Namrata Chauhan, Mei Jin
 ClientType: Chemical Company
 ProjectNumber: Project #1
 Substrates: Plastic, Chrome, Painted metal
 PartType: Coupon
 Contaminants: Hucker's Soil
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric
 Purpose: To evaluate the efficacy of Bioneat with Hucker's soil

Experimental Procedure: Nine pre-weighed coupons, three of each substrate per cleaner, were contaminated with one gram of Hucker's soil using a handheld swab and air-dried at room temperature (68 F) for 24 hours. The contaminated coupons were weighed to record dirty weights before placing three coupons per cleaner of the same substrate into a Gardner Straight Line Washability (SLW) unit. A Kimberly-Clark Wypal reinforced paper towel was attached to the cleaning sled. The Wypal and each coupon were treated with three sprays of the product and cleaned for 20 cycles (~30 seconds of cleaning). Cleaned coupons were wiped once with a dry paper towel before the final weights were taken.

Cleaner	Substrate	Final wt of cont.	%Cont Removed	% AVG
Bioneat	Plastic	-0.0019	101.14	100.60
		-0.0004	100.24	
		-0.0007	100.43	
	Chrome	0.0069	95.49	96.19
		0.0058	96.39	
		0.0053	96.68	
	Painted metal	0.0172	89.69	90.87
		0.0112	93.40	
		0.0179	89.53	

* Plastic coupon's final weight was lower than the initial weight.
 Some soil was left on the painted metal.

Summary:		Substrates: Plastic, Chrome, Painted metal			
		Contaminants: Hucker's Soil			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Durkin Company	Bioneat	6:1	95.88	☒	Overall percent efficacy 95.88%. Bioneat was most effective on plastic than the other substrates.

Conclusion: Bioneat is an effective cleaner to remove soil from the coupons.