

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2025

DateRun: 03/10/2025

Experimenters: Amelia Wagner

ClientType:

ProjectNumber: Project #7

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Blood

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To test the efficacy of Biogone concentration: 0.25 oz/gal in removing synthetic blood from stainless steel at various temperatures

Experimental Procedure: Biogone concentration: 0.25oz/gal was tested at three temperatures: 25C, 50C, and 60C. Three stainless steel coupons were chosen for each temperature tested for a total of nine coupons. Each coupon was weighed and had their initial weights recorded. The coupons were then soiled with the provided synthetic blood by using a swab to wipe the blood on the lower third of each coupon (where the coupon would come in contact with the cleaning agent during immersion). The coupons were left to air dry for 24 hours before having their dirty weights recorded. The coupons were then subjected to 2 minutes of immersion in the Biogone 0.25oz/gal at their respective temperatures with a stir bar set to 200 rpm. After cleaning, each coupon was rinsed in a DI water bath for 1 minute with a stir bar set to 200 rpm. The coupons were left to air dry overnight before having their clean weights recorded.

Cleaner	Temp	Initial wt of cont.	Final wt of cont.	%Cont Removed	Vis. Obs.	% AVG
Biogone 0.25 oz/gal	25C	0.0013	0.0003	76.92	Staining left where soil was most concentrated	68.38
		0.0013	0.0005	61.54	Staining left where soil was most concentrated	
		0.0012	0.0004	66.67	Staining left where soil was most concentrated	
	50C	0.0004	0.0001	75.00	Staining left where soil was most concentrated to the same degree as the previous group	78.33
		0.0020	0.0004	80.00	Staining left where soil was most concentrated to the same degree as the previous group	
		0.0015	0.0003	80.00	Staining left where soil was most concentrated to a lesser degree than the previous group	

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60C	0.0025	0.0005	80.00	Staining left where soil was most concentrated to a lesser degree than the previous group	81.19
	0.0019	0.0004	78.95	Staining left where soil was most concentrated to a lesser degree than the previous group	
	0.0013	0.0002	84.62	No Visible Staining	

Summary:

Substrates:	Stainless Steel				
Contaminants:	Blood				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Case Medical Inc.	BioGone Cleaner/Decontaminator	0.25 oz/gal	68.38	☐	
Case Medical Inc.	BioGone Cleaner/Decontaminator	0.25 oz/gal	78.33	☒	
Case Medical Inc.	BioGone Cleaner/Decontaminator	0.25 oz/gal	81.19	☒	

Conclusion:

As the temperature increases, the performance of the Biogone 0.25oz/gal improves. Cleaning at all three temperatures were not able to consistently remove staining.