

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 | <input type="checkbox"/> | |
| Case Medical Inc. | BioGone Cleaner/Decontaminator | 0.25 oz/gal | 78.33 | <input checked="" type="checkbox"/> | |
| Case Medical Inc. | BioGone Cleaner/Decontaminator | 0.25 oz/gal | 81.19 | <input checked="" type="checkbox"/> | |

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.