CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 06/08/2021

Experimenters: Justin Kiander

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Food

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: The purpose of this experiment was to determine the effectiveness of Blizzard reformulation products in removing frozen mayonnaise from aluminum substrates.

Experimental Procedure: The following products were prepared according to predetermined reformulation recipes: Blizzard with Calsolv, Blizzard with Augeo, Blizzard with Augeo and Linsurf 91-6. Three aluminum coupons were obtained for each of the cleaners being tested. Coupons were soiled with mayonnaise using a swab to spread the soil across the entire surface of the substrate. All coupons were then placed into a freezer to allow the soil to age for 24 hours. Following the aging process, individual paper towels were saturated with respective cleaning solutions and manual wiping was conducted for 30 seconds. After 30 seconds of wiping, a percentage of cleanliness was determined by visual observation. Cleaning then continued until the soil was completely removed. The total time to clean was recorded.

Results:

Cleaner	Percent Clean After 30 seconds	Total Time to Clean (seconds)
Blizzard with Calsolv	98	33
	99	31
	100	30
Blizzard with Augeo	100	30
	97	35
	100	30
Blizzard with Augeo and Linsurf 91-6	100	30
	100	30
	100	30

The frozen mayonnaise was very easily removed from all substrates. There was some visual streaking observed following the 30 seconds of manual wiping which required a few additional seconds to remove. Gravimetric data was unable to be collected because coupons and soil needed to stay completely frozen for effective results.

Summary:

Conclusion: All Blizzard products were effective at removing the frozen mayonnaise from aluminum substrates with 30 seconds of manual wiping. Some coupons did require a few additional seconds to remove streaking. Next steps would be to discuss the results with the company.