

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1999

DateRun: 08/18/1999

Experimenters: Jason Marshall, Nicole Vayo

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Aluminum, Stainless Steel, Steel, Liquid

PartType: Coupon

Contaminants: Buffing/Polishing Compounds, Coatings, Fluxes, Greases, Lubricating/Lapping Oils

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate client supplied cleaning solution on all listed contaminants and on several substrates.

Experimental Procedure: The cleaning solution was used at full strength in a 600 mL beaker. The solution was used at room temperature. Coupons were cleaned for five minutes. Rinsing was performed for two minutes using tap water at 120 F and air dried for about two hours also at room temperature. After drying is complete, final weights are recorded and efficiencies are calculated.

SUBSTRATE MATERIAL: Aluminum (202-2024 T-3); Cold Rolled Steel (202-1020); Stainless Steel (202-10 B-85); Glass; Liquid

CONTAMINANTS: Table 1 lists the contaminants and the related CAS#s for this trial.

Table 1. Contaminants Cleaned

Contaminant CAS #

grease 64742-47-8

lubricant 64742-47-8, 9003-29-6

coating 64742-47-8, 64742-52-5

flux

buffing 64-56-1, 1314-13-2, 119-47-1, 8052-10-6

CONTAMINATING PROCESS USED: Three preweighed coupons were contaminated for each of the listed soils using a hand held swab.

Results: The Product evaluated was successful on all the contaminants except for one. It only removed 37% of the coating that was applied to the stainless steel coupons. All other contaminants were completely cleaned (100%). Table 2 lists the efficiencies for each substrate and contaminant studied.

Table 2. Cleaning Efficiencies

SafeScience Engine Degreaser	
Substrate	Substrate ID #
Aluminum	202-2024 T-3
Cold Rolled Steel	202-1020

Summary:	<b>Substrates:</b>		Aluminum, Stainless Steel, Steel, Liquid			
	<b>Contaminants:</b>		Buffing/Polishing Compounds, Coatings, Fluxes, Greases, Lubricating/Lapping Oils			
	<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
	Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	<input checked="" type="checkbox"/>	grease
	Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	<input checked="" type="checkbox"/>	lubricant
	Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	37.00	<input type="checkbox"/>	coating
	Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	<input checked="" type="checkbox"/>	flux
	Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	<input checked="" type="checkbox"/>	buffing compound

Conclusion: The Engine Degreaser was successful in removing grease, lubricant, flux and buffing compound from a variety of substrates.