CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1999

DateRun: 08/17/1999

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:

Substrates:	Aluminum, Stainless Steel, Steel, Liquid				
Contaminants:	Buffing/Polishing Compounds, Coatings, Fluxes, Greases, Lubricating/Lapping Oils				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	☑	grease
Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	☑	lubricant
Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	37.00	☐	coating
Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	☑	flux
Safe Science Inc	Safe Science Engine Degreaser (Industrial)	100	100.00	☑	buffing compound

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