CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2023
DateRun:	07/27/2023
Experimenters:	Alicia McCarthy, Amelia Wagner
ClientType:	Tool Manufacturer
ProjectNumber:	Project #2
Substrates:	Steel
PartType:	Coupon
Contaminants:	Adhesive, Resins/Rosins
Cleaning Methods:	Manual Wipe
Analytical Methods:	Visual
Purpose:	To identify additional solvents that may be more effective in removing varnish from steel coupons than the previously identified solvents.
Experimental Procedure:	Two pre soiled tools were supplied to TURI by L.S. Starrett. These tools were used instead of coupons to see how several solvents would effect more accurately soiled parts (the varnish of the coupons soiled in the lab end up being thicker than they are at L.S. Starrett). Sections of the tool were marked off for each solvent to applied to a corresponding section. The section of the tool was manually wiped, while being timed. The sections were wiped until completely clean and the time it took for this to occur was recorded. The solvents used were !. D Limonene 85% + Dimethyl Glutarate 15%, B. Benzyl Alcohol 63% + Ethyl Lactate 37%, C. Fatty Acid Methyl Ester 93% + Ethyl Lactate 7%, D. T-Butyl Acetate 42% + Benzyl Benzoate 58%.
Results:	A: 3 seconds for all varnish to be removed B: 40 seconds for all varnish to be removed C: 30 seconds for all varnish to be removed D: 10 seconds for all varnish to be removed
Summary:	
Conclusion:	Solvents A. D Limonene 85% + Dimethyl Glutarate 15%, C. Fatty Acid MEthyl Ester 93% + Ethyl Lactate 7%, and D. T-Butyl Acetate 42% + Benzyl Benzoate 58% show promise to be tested using unheated immersion.