CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 26

DateRun: 09/16/2025

Experimenters: Alexander Symko

ClientType: Textile Mfr

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Coatings

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: Evaluating Solvent alternatives for MEK in cleaning performance coating off of stainless steel substrate

Experimental Procedure: 15 stainless steel coupons were prepared, with initial weights prior to soiling being taken. The soil, a mixture of LV-974EV and LV-3017 were mixed in a 100:4 ratio and applied to the substrate. The coupons were then baked in a laboratory convection oven for 30 minutes at 300 degrees F. Following cooling to room temperature, soiled weights were taken. Then the 5 solvents being tested: Benzaldehyde, Triethyl Phosphate, Tetrahydropyran, Dimethyl Glutarate, and Methyl Benzoate

Results:

Cleaner	Coupon #	Initial wt	Cont. wt	Clean wt.	Initial wt of cont.	Final wt of cont.	%Cont Remov
Benzaldehyde	23	49.1505	49.2575	49.1537	0.1070	0.0032	97.01
	10	49.5305	49.6190	49.5320	0.0885	0.0015	98.31
	13	49.4940	49.6624	49.5282	0.1684	0.0342	79.69
Triethyl Phosphate	20	49.3846	49.5652	49.4776	0.1806	0.0930	48.50
	15	49.4473	49.6288	49.5333	0.1815	0.0860	52.62
	12	49.5164	49.7077	49.6124	0.1913	0.0960	49.82
Tetrahydropyran	21	49.3504	49.3927	49.3496	0.0423	-0.0008	101.89
	28	49.2723	49.4406	49.3183	0.1683	0.0460	72.67
	4	49.5258	49.6580	49.5451	0.1322	0.0193	85.40
Dimethyl Glutarate	18	49.4584	49.6187	49.5212	0.1603	0.0628	60.82
	6	49.3398	49.5063	49.3945	0.1665	0.0547	67.15
	5	49.5280	49.7724	49.6490	0.2444	0.1210	50.49
Methyl Benzoate	32	49.5055	49.7768	49.6070	0.2713	0.1015	62.59
	1	49.2970	49.5256	49.3727	0.2286	0.0757	66.89
	35	49.0954	49.2814	49.1376	0.1860	0.0422	77.31

Summary:

Substrates:	Stainless Steel				
Contaminants:	Coatings				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Fisher Scientific	Benzaldehyde (CAS: 100-52-7)	99%	91.67	☑	
Fisher Scientific	Triethyl Phosphate (CAS: 78-40-8)	99%	50.31	☐	

Conclusion: Benzaldehyde and Tetrahydropyran succeeded in removing the highest amount of the coating, both averaging a removal over 85%. Following EHS evaluations further alternatives may be explored.