CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 36

DateRun: 01/12/2026

Experimenters: Alexander Symko, Rachael Rososky

ClientType: Adhesive Manufacturer

ProjectNumber: Project #1

Substrates:

PartType: Coupon

Contaminants: Adhesive, Coatings

Cleaning Methods: Immersion/Soak

Analytical Methods: HSPiP

Purpose: Evaluating efficacy of selected alternatives for dissolving Flexcon's 1304, 7777, 1565, and 7244 proprietary coatings and adhesives.

Experimental Procedure: Fifteen 25 mL scintillation vials were filled with Benzaldehyde, Benzyl benzoate, 2-Pentanone, and D-limonene (3 vials of each). The four soils were then prepared by spreading them on wax paper and allowing them to air dry to a consistency that could be balled up with a pair of tweezers. Each of the four soils were prepared this way and then a single ball of similar size was placed in each scintillation vial and placed on the experimental roller. Observations were recorded every 10 minutes for the first hour and then every half hour until the three hour mark. Observations included whether or not the solvent had dissolved the soil above or below 80% and other visual criteria, such as whether the solvent changed color or became cloudy.

Results:

Soil	Solvent	Result
1304 Acrylic Topcoat	Benzaldehyde	0
	Benzyl Benzoate	0
	2-Pentanone	0
	D-Limonene	0
7777 Rubber Adhesive	Benzaldehyde	1
	Benzyl Benzoate	0
	2-Pentanone	1
	D-Limonene	0
1565 Co-polyester Resin topcoat	Benzaldehyde	1
	Benzyl Benzoate	0
	2-Pentanone	0
	D-Limonene	0
7244 Solvent Acrylic Adhesive	Benzaldehyde	1
	Benzyl Benzoate	0
	2-Pentanone	1
	D-Limonene	0

Summary:

Substrates:					
Contaminants:	Adhesive, Coatings				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Fisher Scientific	Benzaldehyde (CAS: 100-52-7)	100%	75.00	☑	>80% 7777 rubber adhesive >80% 1565 co-polyester resin topcoat >80% 7244 solvent acrylic adhesive <80% 1304 acrylic topcoat
Florida Chemical Company	D-Limonene	100%	0.00	☐	<80% 1304 Acrylic topcoat <80% 7777 rubber adhesive <80% 1565 copolyester resin topcoat <80% 7244 solvent acrylic adhesive

Conclusion: Based on the results of this test, Benzaldehyde was the most successful solvent and was able to dissolve 3 of the 4 soils. None of the four solvents were capable of successfully dissolving the 1304 Acrylic topcoat. 2-Pentanone was second behind Benzaldehyde, able to dissolve 2 of the 4 soils. Neither d-limonene nor benzyl benzoate were successful in dissolving any of the soils.