CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 26

DateRun: 11/05/2025

Experimenters:

ClientType: Adhesive Manufacturer

ProjectNumber: Project #1

Substrates:

PartType: Part

Contaminants:

Cleaning Methods:

Analytical Methods:

Purpose: Determining HSP Sphere coordinates for Flexcon's 7777 performance coating

Experimental Procedure: 24 scintillation vials were filled with 24 different solvents from TURI's HSP matrix. The 7777 performance coating was spread onto wax paper and allowed to air dry for 3-4 hours. After it was dry, but not hardened, balls of adhesive were scraped into each of the 24 scintillation vials and allowed to soak. For the first hour, visual observations were taken every 10 minutes, then following the first hour observations were taken every half hour up until 3 hours. The vials were then allowed to sit overnight before final observations were taken. A "0" denotes that less than 80% of the target soil was dissolved. While a rating of "1" denotes greater than 80% dissolution of the target soil.

Results:

1 - Toluene	1
2 – Dimethyl Carbonate	0
3 - Xylenes	1
4 – Benzyl Alcohol	0
5 – Ethylene glycol	0
6 – Methyl Acetate	0
7 - Undecane	0
8 – Ethyl Lactate	0
9 – Acetone	0
10 – Ethyl Acetate	1
11 – Methanol	0
12 – Ethanol	0
13 – 1,3-dioxolane	1
14 – Diethyl Carbonate	1
15 – 1-propanol	1
16 – Isopropanol	0
17- Propylene Carbonate	0
18 – Thiophene	1
19 – 1-Methoxy-2-Propanol	0
20 – Dimethyl Sulfoxide	0
21 – 1-Butanol	0
22 – Dimethyl glutarate	0
23 – Anisole	1
24 – 2-Butoxyethyl-Acetate	1

Summary:

Substrates:					
Contaminants:					
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
EM Science	Toluene	99%	0.00	☑	
Alfa Aesar	Dimethyl Carbonate 99%	99%	0.00	☐	
Fisher Scientific	Xylene	99%	0.00	☑	
No Specific Vendor	Benzyl Alcohol	99%	0.00	☐	
Alfa Aesar	Ethylene Glycol	99%	0.00	☐	

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Alfa Aesar	Methyl Acetate	99%	0.00	☐	
TCI America	Undecane	99%	0.00	☐	
Fisher Scientific	Ethyl Lactate	99%	0.00	☐	
J.T. Baker	Acetone	99%	0.00	☐	
Alfa Aesar	Ethyl Acetate	99%	0.00	☑	
Fisher Scientific	Methanol (CAS: 67-56-1)	99%	0.00	☐	
Fisher Scientific	Ethanol	99%	0.00	☐	
Fisher Scientific	1,3-Dioxolane (CAS:646-06-0)	99%	0.00	☑	
Fisher Scientific	Diethyl carbonate	99%	0.00	☑	
Fisher Scientific	1-Propanol	99%	0.00	☑	
Fisher Scientific	Isopropanol (CAS:67-63-0)	99%	0.00	☐	
Fisher Scientific	Propylene carbonate 99.5% (CAS: 108-32-7)	99%	0.00	☐	
Alfa Aesar	Thiophene	99%	0.00	☑	
Alfa Aesar	1-Methoxy 2-Propanol	99%	0.00	☐	
Fisher Scientific	Dimethyl Sulfoxide - DMSO (CAS: 67-68-5)	99%	0.00	☐	
Alfa Aesar	1-Butanol 99.4%+	99%	0.00	☐	
Fisher Scientific	Dimethyl glutarate (CAS:1119-40-0)	99%	0.00	☐	
Fisher Scientific	Anisole (CAS: 100-66-3)	99%	0.00	☑	
Fisher Scientific	2-Butoxyethyl Acetate	99%	0.00	☑	

Conclusion: Based on the results of this test, Toluene, Xylene, Ethyl Acetate, 1,3-dioxolane, Diethyl Carbonate, 1-propanol, Thiophene, Anisole, and 2-butoxyethyl-acetate were successful in dissolving the target soil. The other 15 solvents did not succeed in dissolving the target soil