

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 | <input checked="" type="checkbox"/> | | |
| Alfa Aesar | Dimethyl Carbonate 99% | 99% | 0.00 | <input type="checkbox"/> | | |
| Fisher Scientific | Xylene | 99% | 0.00 | <input checked="" type="checkbox"/> | | |
| No Specific Vendor | Benzyl Alcohol | 99% | 0.00 | <input type="checkbox"/> | | |
| Alfa Aesar | Ethylene Glycol | 99% | 0.00 | <input type="checkbox"/> | | |

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

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