

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 36
 DateRun: 01/29/2025
 Experimenters: Alexander Symko
 ClientType: Microelectronics Mfr
 ProjectNumber: Project #1
 Substrates: Other
 PartType: Part
 Contaminants: Coatings, Chemical
 Cleaning Methods: Immersion/Soak
 Analytical Methods: HSPiP
 Purpose: Evaluate the efficacy of TURI's standard HSPiP panel at dissolving Macom's soil of unknown composition
 Experimental Procedure: 24 scintillation vials were filled with 15 mL of each chemical from TURI's 24 solvent panel. Pieces of the supplied mystery soil were then broken up into roughly equally sized pieces and fully immersed in the solvent and were then allowed to soak for 3 hours, with observations being taken every hour. A 1 rating denotes most or complete dissolution of the soil, while a 0 rating means some of or none of the soil was dissolved.
 Results: **Visual Observation Code: NC** - no change, **SW** - Swelling, **CLD** - solution is cloudy **0** - dissolution less than 90% **1** - dissolution greater than 90%

| Chemical | 1 Hour | 2 Hours | 3 Hours | Overnight |
|-----------------------|--------|---------|---------|-----------|
| Toluene | SW | SW | SW | Gel, 1 |
| Dimethyl Carbonate | NC | NC | PART | 0 |
| Xylenes | SW | SW | SW | Gel, 1 |
| Benzyl Alcohol | NC | NC | PART | 0 |
| Ethylene Glycol | NC | NC | SW | 0 |
| Methyl Acetate | NC | NC | NC | 0 |
| Undecane | NC | NC | NC | Sticky, 0 |
| Ethyl Lactate | NC | NC | NC | 0 |
| Acetone | NC | NC | NC | 0 |
| Ethyl Acetate | NC | NC | SW | SW,0 |
| Methanol | NC | NC | PART | 0 |
| Ethanol | NC | NC | NC | 0 |
| 1,3-Dioxolane | SW | SW | SW | gel, 1 |
| Diethyl Carbonate | SW | SW | SW | SW, 0 |
| 1-Propanol | NC | NC | PART | 0 |
| Isopropanol | NC | NC | PART | 0 |
| Propylene Carbonate | NC | NC | PART | 0 |
| Thiophene | SW | SW | SW | Gel, 0 |
| 1-methoxy-2-propanol | NC | NC | PART | 0 |
| Dimethyl Sulfoxide | NC | NC | PART | 0 |
| 1-Butanol | NC | NC | PART | 0 |
| Dimethyl Glutarate | NC | NC | PART | 0 |
| Anisole | SW | SW | SW | 1 |
| 2-Butoxyethyl-Acetate | SW | SW | SW | 1 |

Summary:

Conclusion: Toluene, Xylene, 1,3-dioxolane, Anisole, and 2-butoxyethyl-acetate were all successful at dissolving the mystery soil. EHS evaluations will now be conducted to ensure that the safest option of these solvents is recommended.