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.