

## CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 07/07/2005

Experimenters: Jason Marshall, Fred Youngs

ClientType: Lab

ProjectNumber: Project #1

Substrates: Teflon

PartType: Coupon

Contaminants: Greases, Lubricating/Lapping Oils, Oil

Cleaning Methods:

Analytical Methods:

Purpose: To generate a list of products that could be used to replace Methylene Chloride.

Experimental Procedure: Using the laboratory's database for solvent cleaning substitution, the lab generated a list of products that could be used in place of Methylene Chloride. A comparison of physical properties was conducted as well.

Results: A list of 19 products was compiled. Various physical characteristics were compared to Methylene Chloride. The physical properties researched include: Vapor Pressure, Latent Heat, Surface tension, Boiling Point, Flash Point, ODP, GWP, VOC, SNAP , KB value, Exposure Level, Chemical Formula, Molecular Wt, Freezing Pt, Sp Gr, Density, Vapor Density, Specific Heat, Refractive Index, Viscosity, Solubility of water, Solubility in water, Solvent-water Azetrope BP, Flammable limits and the Hansen Parameters. Not all properties were identified for the listed products.

List of Alternatives

- Asahiklin AK 225
- CCA
- MCA
- Heavy Duty Degreaser C
- Flux Remover C
- HFE 7100
- HFE 71DE
- HFE 7200
- Ensolv
- Ensolv A
- LENIUM CP
- LENIUM ES
- LENIUM GS
- Metalnox M6960
- Solvon PB
- Solvon IP
- OS 10
- OS 20
- OS 30

Summary:

Conclusion: Cleaning varies from case to case. The SSL recommends process specific testing on potential replacement cleaning chemicals. If more information is needed on a particular product, or you are interested in conducting cleaning trials, please contact the lab at (978)934-3133.