

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004
 DateRun: 09/01/2004
 Experimenters: Jason Marshall
 ClientType: Manufacturing
 ProjectNumber: Project #1
 Substrates: Plastic
 PartType: Coupon
 Contaminants: Greases, Mold Releases, Fingerprints
 Cleaning Methods:
 Analytical Methods:

Purpose: To identify a list of alternatives for removing mold release agents (silicone based) in a manual operation.

Experimental Procedure: Using the laboratory's database for solvent cleaning substitution, the lab generated the following lists of products based on vendor supplied information only. Testing of these products under the specific conditions has not been conducted at this time at SSL.

Results: The products listed below have been recommended by vendors for removing grease and Mold Releases/ Silicones from plastic parts using manual wiping applications. Using the laboratory's safety ranking system, all of these products were found to be potentially safer than MEK. (The lab uses five criteria to assess safety: Global warming potential, ozone depletion potential, volatile organic content, pH and the NFPA/ HMIS rating system)

| CompanyName | ProductName | ClassificationDescription |
|------------------------|--------------------------------------|---------------------------|
| 3M | HFE 7200 | HFE |
| Alconox Inc | Alconox | Powder Detergent |
| Bio Chem Systems | Bio T 200 A | Terpene |
| Bio Chem Systems | Bio T Max | Terpene-Semi-Aqueous |
| Bio Chem Systems | Green Stuff (6325) | Alkaline Aqueous |
| Bio Chem Systems | Solsafe 245 | Petroleum Distillate |
| Buckeye International | Shopmaster | Alkaline Aqueous |
| Buckeye International | Shopmaster LPH | Alkaline Aqueous |
| Chrisal USA Inc | Super CMF 240 | Alkaline Aqueous |
| Emkay Chemical Company | Safety Wash | Alkaline Aqueous |
| Emkay Chemical Company | Safety Wash Clear | Alkaline Aqueous |
| Gemtek Products | SC Supersolve | Organic |
| Hotsy Cleaning Systems | Hotsy Detergents Tub & Pressure Wash | Alkaline Aqueous |
| Magnaflux | Daraclean 212 | Neutral Aqueous |
| Magnaflux | Daraclean 235 | Neutral Aqueous |
| Magnaflux | Daraclean 282 | Alkaline Aqueous |
| Magnaflux | Daraclean 282 GF | Alkaline Aqueous |
| Magnaflux | | Alkaline Aqueous |

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|-------------------------|--|----------------------|
| | Daraclean 283 | |
| Oakite Products | Inproclean 4000 T | Terpene-Organic |
| Safe Science | Safe Science Concrete/ Graffiti (Industrial) | Alkaline Aqueous |
| Savogran | Dirtex Prepaint Cleaner | Alkaline Aqueous |
| Savogran | HD-34 Cleaner Degreaser | Semi-Aqueous |
| Solvent Kleene Inc | D Greeze 500 LO | Organic |
| Tarksol Inc | Tarksol HTF 40 | Terpene-Semi-Aqueous |
| Today & Beyond | Beyond 2001 | Alkaline Aqueous |
| Today & Beyond | Beyond 2003 | Alkaline Aqueous |
| Today & Beyond | Beyond 2004 | Alkaline Aqueous |
| Today & Beyond | Beyond 2005 | Alkaline Aqueous |
| Today & Beyond | Beyond 2006 | Alkaline Aqueous |
| US Polychem Corporation | Polychem 2000 P | Alkaline Aqueous |
| US Polychem Corporation | Polychem A 2000 XS | Alkaline Aqueous |
| US Polychem Corporation | Polychem DEOX 007 | Alkaline Aqueous |
| US Polychem Corporation | Polychem PW 147 | Alkaline Aqueous |
| US Polychem Corporation | Polychem Ultra CR | Alkaline Aqueous |
| US Polychem Corporation | Polyspray Jet 790 P | Alkaline Aqueous |
| US Polychem Corporation | Polyspray Jet 790 XS | Alkaline Aqueous |
| Valtech Corporation | Valtron SP 2200 | Alkaline Aqueous |

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.