

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006
 DateRun: 01/19/2006
 Experimenters: Jason Marshall
 ClientType: Coatings Manufacturer
 ProjectNumber: Project #1
 Substrates: Ceramics, Glass/Quartz
 PartType: Coupon
 Contaminants: Waxes, Oil
 Cleaning Methods: Immersion/Soak
 Analytical Methods:

Purpose: To generate a list of alternatives that could be used for the first step in cleaning of bulk materials.

Experimental Procedure: Using the laboratory's database for solvent cleaning substitution, the lab generated a list of products that have been used to clean oil or wax from glass or ceramic surface. This list contains products that would be used in Step 1 of the proposed cleaning process to removal gross oil & paraffin removal. Products should be non-emulsifying and recyclable.

Results: Step 1 Products for Gross Oil & Paraffin Removal

| | | | |
|------------------------------|-------------------------------------|---|----------------------|
| non-emulsifying | | | |
| recyclable | | | |
| substitute for Orange Tuf 40 | | | |
| | | | |
| Company Name | Product Name | Notes | Classification |
| Bio Chem Systems | Bio T Max (or Bio T 200 A or 300 B) | Recycle via filtration - 10 micron cotton | Terpene |
| Kyzen Corporation | Ionox FCR (or other Kyzen product) | Simple and easy rinsing | Alcohol |
| Oakite Products | Inproclean 3800 | Recyclable | Alkaline |
| Solvent Kleene Inc | D Greeze 500 LO | Recycle - distillation | Hydrocarbon |
| Brulin Corporation | Formula 815 GD | | Alkaline |
| Florida Chemical Company | D-Limonene (or Citrus Burst 7) | Dissolving mechanism | Terpene |
| Dynamold Solvents Inc | DS 108 | Free rinsing | Petroleum Distillate |
| International Products | Micro 90 | | Alkaline |
| Magnaflux | Daraclean 282 | | Alkaline |

Summary:

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|----------------------|----------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | Ceramics, Glass/Quartz | | | | |
| Contaminants: | Waxes, Oil | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| No Specific Vendor | Supplied alternatives list | | | <input checked="" type="checkbox"/> | |

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.

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