

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003
DateRun: 06/06/2003
Experimenters: Jason Marshall
ClientType: Printing Company
ProjectNumber: Project #1
Substrates: Textile
PartType: Part
Contaminants: Inks
Cleaning Methods: Manual Wipe
Analytical Methods: Photography

Purpose: To evaluate successful cleaners on cloth substrate

Experimental Procedure: Four products from previous trials were selected to be evaluated for ink removal from cloth substrate. Three products were used at full strength. The fourth was diluted to 20% using DI water in a 600 ml beaker. All four were used at room temperature. Four pieces of cotton cloth were photographed using a Kodak Digital Science DC260 Zoom camera. These pieces were then contaminated in several spots with PolysOne Kennesaw Wiflex MX Mixing Colors -black (85-68-7, 9002-86-2) using a hand held swab. A second photograph was taken. A paper towel was soaked with each cleaner and used to manually wipe the ink from the cloth. A maximum of ten minutes was allowed for cleaning each spot. Final photographs were taken and observations were made.

Results: The three semi-aqueous products had some success, removing most of the ink from the cloth. All cleaners resulted in smearing the ink across the cloth. The figures show pre-soil, soiled and after cleaning of each cloth strip.

Summary:

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|--------------------------|----------------------------------|---------------|--------------------|-------------------------------------|----------------------|--|
| Substrates: | | Textile | | | | |
| Contaminants: | | Inks | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Bio Chem Systems | Bio T Max | 100 | | <input checked="" type="checkbox"/> | | |
| Florida Chemical Company | D-Limonene | 100 | | <input checked="" type="checkbox"/> | | |
| Vertec BioSolvents | Ink Zapper | 100 | | <input checked="" type="checkbox"/> | | |
| Phase III Inc | California Parts Washer Solution | 20 | | <input type="checkbox"/> | | |

Conclusion: Additional testing will be performed to further test the effectiveness of the semi-aqueous products.