

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008  
 DateRun: 11/07/2008  
 Experimenters: Jason Marshall  
 ClientType: Electro-Optical Devices  
 ProjectNumber: Project #1  
 Substrates: Glass/Quartz  
 PartType: Coupon  
 Contaminants: Adhesive  
 Cleaning Methods: Manual Wipe  
 Analytical Methods: Visual

Purpose: To evaluate products with better pH values for adhesive removal

Experimental Procedure: Eight products were selected from the laboratory's web database, [www.cleansolutions.org](http://www.cleansolutions.org), based on supplied information from the client. Each product was used at full strength and room temperature. Glass coupons were contaminated with a strip of the supplied adhesive tape. coupons were then cleaned with each solution. Cleaning was performed by soaking a WypAll X60 reinforced paper towel with the cleaning solution. The coupons were then manually wiped for up to 2 minutes. Visual observations were made and recorded during cleaning.

Results: Five of the eight products removed the adhesive within 1 minute of the manual wiping. The table lists the amount of time required to remove the adhesive from the glass surface.

| Product                 | Time                                 |
|-------------------------|--------------------------------------|
| Free & Clear            | 36 seconds                           |
| Scout Glass & Surface   | 37 seconds - foamy, could be diluted |
| Kernel Clean            | 45 seconds                           |
| Clean Environment Glass | 57 seconds                           |
| Biorenewable Glass      | 79 seconds - foamy                   |
| SC More Than Glass      | 22 seconds                           |
| EnviroCare Glass        | 71 seconds - foamy, could be diluted |
| Smart Solve 605         | Over 2 minutes                       |

Summary:

| <b>Substrates:</b>                | Glass/Quartz                      |        |             |                                     |               |
|-----------------------------------|-----------------------------------|--------|-------------|-------------------------------------|---------------|
| <b>Contaminants:</b>              | Adhesive                          |        |             |                                     |               |
| Company Name:                     | Product Name:                     | Conc.: | Efficiency: | Effective:                          | Observations: |
| Seventh Generation                | Natural Glass and Surface Cleaner | 100    |             | <input checked="" type="checkbox"/> |               |
| Scout Systems                     | Scout Glass & Surface Cleaner     | 100    |             | <input checked="" type="checkbox"/> |               |
| Franmar Chemical                  | Kernel Clean glass cleaner        | 100    |             | <input checked="" type="checkbox"/> |               |
| The Clean Environment Co          | Glass and Hard Surface Cleaner    | 100    |             | <input checked="" type="checkbox"/> |               |
| Spartan Chemical Company          | Biorenewables Glass Cleaner       | 100    |             | <input type="checkbox"/>            |               |
| Gemtek Products                   | SC More Than Glass Cleaner        | 100    |             | <input checked="" type="checkbox"/> |               |
| Rochester Midland Corporation     | EnviroCare Glass Cleaner          | 100    |             | <input type="checkbox"/>            |               |
| United Laboratories International | Smart Solve 605                   | 100    |             | <input type="checkbox"/>            |               |

Conclusion: The five products with the shortest required cleaning times will be evaluated on the EVA film.