

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004  
 DateRun: 01/23/2004  
 Experimenters: Jason Marshall  
 ClientType: Tool Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Steel  
 PartType: Part  
 Contaminants: Paints  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Photography, Visual

Purpose: To evaluate selected cleaners on third supplied part

Experimental Procedure: Four products from the previous trials were selected to clean the first set of supplied parts using immersion cleaning. A fifth, untested product was added. Three products were used at full strength. One product was diluted to 10% using DI water in a 600 ml beaker. The last product was diluted to 12.5% using DI water, based on vendor recommendations. Two products were used at room temperature and the other three were heated to 120 F on a hot plate. The dirty parts were photographed in groups of two and immersed into a beaker with cleaning solution and allowed to soak for 10 minutes. Following the cleaning, the parts were dried using air blow off at room temperature. The cleaned parts were then photographed again for comparison to the dirty pictures. Observations during cleaning were recorded and products were ranked based on how effective the products were.

Contaminant: Varnish

Results: Only one product, 278 Super Solv, was completely successful in removing the varnish in 10 minutes. Three others showed signs of starting to remove the varnish. Only one product, Commercial All Purpose, did not remove the varnish. The 278 Super Solv had cleaner residue remaining after the initial drying with the air. With additional air blow off, the remaining residue was removed.

Summary:

|                        |                                               |               |                    |                                     |                      |
|------------------------|-----------------------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>     | Steel                                         |               |                    |                                     |                      |
| <b>Contaminants:</b>   | Paints                                        |               |                    |                                     |                      |
| <b>Company Name:</b>   | <b>Product Name:</b>                          | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| AW Chesterton          | 278 Super Solv                                | 100           |                    | <input checked="" type="checkbox"/> | Rank = 1             |
| Dysol                  | DS 108 Wipe Solvent                           | 100           |                    | <input checked="" type="checkbox"/> | Rank = 3             |
| Metabolix Inc          | Metabolix E3HB                                | 100           |                    | <input checked="" type="checkbox"/> | Rank = 2             |
| Gemtek Products        | SC Aircraft & Metal Cleaner Super Concentrate | 10            |                    | <input checked="" type="checkbox"/> | Rank = 4             |
| Lifetime Solutions Ltd | Commercial All Purpose Colloidal Cleaner      | 12            |                    | <input type="checkbox"/>            | Rank = 5             |

Conclusion: The three partially successful cleaners will be retested at longer cleaning intervals.