

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 02/11/2002

Experimenters: Purav Dave

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Buffing/Polishing Compounds, Cutting/Tapping Fluids, Greases

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

1. Buffing compound - The Lea Manufacturing Company Learok 2-B-111 - Abrasive, Fatty acids, Glycerides and petroleum wax/oil mix-silica dust (14808-60-7)
2. Grease - Elf Lubricants, Keystone KSL-111 Synthetic Tacky Grease (64742-478, 8052-42-4)
3. Lubricant - ITW Devkon Safetap stick, grinding lubricant, contains TSRK 80100221-5000P, TSRK 80100221-5001P, TSRK 80100221-5002P

## Results:

### Summary:

| <b>Substrates:</b>          |                     | Stainless Steel  |             |                                     |   |
|-----------------------------|---------------------|--|-------------|-------------------------------------|---|
| <b>Contaminants:</b>        |                     | Buffing/Polishing Compounds, Cutting/Tapping Fluids, Greases |             |                                     |   |
| Company Name:               | Product Name:       | Conc.:   | Efficiency: | Effective:                          | Observations:   |
| Simple Green                | Simple Green D      | 5  | 106.20      | <input type="checkbox"/>            | Contaminant: Buffing compound, Method: Ultrasonic               |
| Watson Technical Associates | Watson Formula 7300 | 5  | 92.81       | <input checked="" type="checkbox"/> | Contaminant: Grease, Method: ultrasonic                         |
| Watson Technical Associates | Watson Formula 7300 | 5  | 89.39       | <input checked="" type="checkbox"/> | Contaminant: Grease, Method: immersion with stirbar agitation   |
| Watson Technical Associates | Watson Formula 7300 | 5  | 83.26       | <input type="checkbox"/>            | Contaminant: Grease, Method: immersion with air sparging system |
| JDI Inc                     | Mirachem 500 RTU    | 5  | 97.49       | <input type="checkbox"/>            | Contaminant: Lubricant, Method: Ultrasonic                      |

Conclusion: For cleaning grease with Watson Formula 7300- ultrasonic was found to be the most effective.