

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 08/23/2002

Experimenters: Jason Marshall

ClientType: Manufacturing

ProjectNumber: Project #1

Substrates: Alloys, Galvanized Steel, Stainless Steel, Steel

PartType: Coupon

Contaminants: Greases, Resins/Rosins, Films, Plastic, Oil, Chemical

Cleaning Methods:

Analytical Methods:

Purpose: Comparison of specific products requested by client

Experimental Procedure: Client currently involved in a test to find a cleaner for ultrasonic cleaning machines. Cleaning plated and unplated tool steels that have a range of soils including oil, grease, nylon and polyester residue, gas burns resulting from injection molding. Going to test several chemicals and would like lab's input on the four products as the lab has thoroughly tested 2 of the 4 chemicals we are testing. The products to be tested are the following:  
Micro-90  
Brulin 815GD  
Cerfa-Kleen 5387 (by Houghton International)  
Liqui-Det (by Oakite Products)

If you could possibly give a comparison between Micro-90 and Brulin. Also if lab could recommend another cleaner that would be great too.

Results: The lab has evaluated three of the four products requested by client. Test results are as follows:

|                                                                                                                     |                    |
|---------------------------------------------------------------------------------------------------------------------|--------------------|
| CompanyName                                                                                                         | Brulin Corporation |
| ProductName                                                                                                         | Formula 815 GD     |
| ClassificationDescription                                                                                           | Alkaline Aqueous   |
| Total                                                                                                               | 79                 |
| Adhesive (108-88-3, 9010-98-4, 65997-13-9, 68083-03-4)                                                              | 3                  |
| Buffing Compound - Jackson Lea Learok 7-S-3 Buffing compound                                                        | 3                  |
| Buffing compound - Jackson Lea Plastibratd F-18 (1332-58-7, 1344-09-8, 1344-28-1, 9000-70-8)                        | 5                  |
| Buffing compound - M_P Iding Co_ Gritite                                                                            | 5                  |
| Carbon Black                                                                                                        | 1                  |
| Chemical - Latex binder mix 00146 (9016-45-9, 7664-41-7, 50-00-0, 79-06-1, 924-42-5, 1333-86-4, 57-55-6, 7732-18-5) | 2                  |
| Coating - Quaker (64742-47-8, 64742-52-5)                                                                           | 3                  |
| Cutting Fluid                                                                                                       | 1                  |
| Dirt                                                                                                                | 2                  |
| Dirt - Exhaust soils                                                                                                | 1                  |
| Flux                                                                                                                | 5                  |
| Grease - Elf Lubricants, Keystone KSL-111 Synthetic Tacky Grease                                                    | 3                  |
| Grease - Heavy greases                                                                                              | 2                  |
| Grease - M_P Iding Co, grease stick with fatty acid and tallow                                                      | 5                  |
| Grease - Pine-tar like preservative                                                                                 | 1                  |

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|                                                                                                              |                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------|
| Ink - ITW Dykem Corp Ink steel blue DK 100 (64-17-5, 123-86-4, 71-36-3, 9004-70-0, 67-63-0, 8004-87-3)       | 3                           |
| Lubricant - Fuchs Renocut 127 mineral oil                                                                    | 3                           |
| Lubricant - Magnacool CC                                                                                     | 2                           |
| None                                                                                                         | 3                           |
| Oil - Castrol llocut-5721                                                                                    | 4                           |
| Oil - C-Eblis cutting oil (64742-53-6, 64742-52-5)                                                           | 4                           |
| Oil - Hangsterfer's S-500 CF-US Metal working fluid                                                          | 5                           |
| Oil - Heat treat quench oil                                                                                  | 2                           |
| Oil - Hydraulic oil with silicone                                                                            | 2                           |
| Oil - Non silicone machining oil                                                                             | 2                           |
| Oil - Rust inhibiting oil                                                                                    | 2                           |
| Oil - Speedfam #210 Oil-Based Vehicle                                                                        | 1                           |
| Oil - Texaco Lubricant Company, Cleartex D (64742-65-0, 68527-02-6)                                          | 4                           |
| CompanyName                                                                                                  | International Products Corp |
| ProductName                                                                                                  | Micro 90                    |
| ClassificationDescription                                                                                    | Alkaline Aqueous            |
| Total                                                                                                        | 30                          |
| Abrasive - Saint Gobain Industrial Ceramics Water Based Alumina                                              | 1                           |
| Adhesive - Ashland Chemical Acrylic Resin Aroset 1872                                                        | 2                           |
| Adhesive - Ashland Chemical Acrylic Sealant 5504 (108-88-3, 141-78-6, 142-82-5, 67-63-0)                     | 2                           |
| Alcohol - DuPont Evanol (9002-89-5, 25213-24-5, 54626-91-4, 67-56-1, 127-09-3)                               | 11                          |
| Buffing compound                                                                                             | 1                           |
| Buffing compound - Anchor Chemical Co, Anchor Spin G-10                                                      | 1                           |
| Buffing compound - Jackson Lea Antique Buffing compound LM-12                                                | 1                           |
| Buffing Compound - Jackson Lea Learok 7-S-3 Buffing compound                                                 | 2                           |
| Buffing compound - Matchless Metal Polishing Co, Z-230 Buffing Compound (7429-90-5)                          | 1                           |
| Grease - Snowden Pencer F-26 Grease Stick Polishing Lubricant (64742-52-5, 68815-16-7, 67701-27-3, 102-71-6) | 2                           |
| Oil - Castrol GTX SAE 10W40 (64742-41-2, 64741-88-4, 64742-01-4)                                             | 1                           |
| Oil - WA Wood Co W-373 (64741-44-2, 64742-53-6, 64742-52-5)                                                  | 1                           |
| Phthalate (84-74-2)                                                                                          | 2                           |
| Pitch - Universal Photonics #48 Transparent Pitch                                                            | 1                           |
| Wax - Paraffin wax                                                                                           | 1                           |

Summary:

## **CLEANING LABORATORY EVALUATION SUMMARY**

Conclusion:                      Cleaning varies from case to case, please contact the lab for process specific testing at (978)934-3133.