

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009

DateRun: 03/17/2009

Experimenters: Daniel Pina

ClientType: Lab

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric

Purpose: Using non-toxicbiobased cleaning products to remove cutting/tapping fluid off of steel using a manuel wipe method.

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Weight the steel coupons to get an original weight before adding the cutting/tapping fluid. The weigh the dirty coupons get a second reading. Setup the manual wipe machine for 20 cycles = 30 seconds and add the cleaning solution to the coupons that is designated to be tested with this cleaning product. After that reweigh the coupons to get a final reading and see what percentage of the tapping/cutting fluid has been taken off.

|          |   |            |          |           |
|----------|---|------------|----------|-----------|
| Results: | Cleaner                                       | Initial wt | Final wt | % Removed |
|          | Orison Marketing VPW SC 1000                  |            |          |           |
|          |   | 0.0798     | 0.0028   | 96.49     |
|          |   | 0.1703     | 0.0005   | 99.71     |
|          |   | 0.2608     | 0.0003   | 99.89     |
|          | Soly Solv ind. Cornsolv                       |            |          |           |
|          |   | 0.3243     | 0.0014   | 99.57     |
|          |   | 0.2309     | 0.0008   | 99.65     |
|          |   | 0.4084     | 0.0024   | 99.41     |
|          | Soly Solv ind. Soysolv II                     |            |          |           |
|          |   | 0.2868     | 0.0060   | 97.91     |
|          |   | 0.2961     | 0.0046   | 98.45     |
|          |   | 0.1905     | 0.0052   | 97.27     |
|          | Spartan Chemical company graffiti remover SAC |            |          |           |
|          |   | 0.2976     | 0.0033   | 98.89     |
|          |   | 0.1763     | 0.0028   | 98.41     |
|          |   | 0.3393     | 0.0026   | 99.23     |
|          | Spartan Chemical Company soy strong           |            |          |           |
|          |   | 0.2537     | 0.0055   | 97.83     |
|          |   | 0.3062     | 0.0055   | 98.20     |
|          |   | 0.3220     | 0.0087   | 97.30     |
|          | Tarksol inc. Tarksol npb                      |            |          |           |
|          |   | 0.2603     | 0.0070   | 97.31     |
|          |   | 0.3032     | 0.0096   | 96.83     |
|          |   | 0.3161     | 0.0098   | 96.90     |
|          | United Laboratories smart solve 605           |            |          |           |
|          |   | 0.3140     | 0.0066   | 97.90     |
|          |   | 0.3762     | 0.0068   | 98.19     |
|          |   | 0.3503     | 0.0069   | 98.03     |
|          | Vertec biosolv vertec bio gold 3              |            |          |           |
|          |   | 0.3233     | 0.0055   | 98.30     |
|          |   | 0.3227     | 0.0051   | 98.42     |
|          |   | 0.3308     | 0.0103   | 96.89     |

Summary: 

|                    |       |
|--------------------|-------|
| <b>Substrates:</b> | Steel |
|--------------------|-------|

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|                                   |                             |                        |                    |                                     |                      |
|-----------------------------------|-----------------------------|------------------------|--------------------|-------------------------------------|----------------------|
| <b>Contaminants:</b>              |                             | Cutting/Tapping Fluids |                    |                                     |                      |
| <b>Company Name:</b>              | <b>Product Name:</b>        | <b>Conc.:</b>          | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Orison Marketing                  | VPW SC 1000                 | 10                     | 98.69              | <input checked="" type="checkbox"/> |                      |
| Soysolv Industrial Products       | Cornsolv industrial solvent | 10                     | 99.54              | <input checked="" type="checkbox"/> |                      |
| Soysolv Industrial Products       | Soysolv II solvent          | 10                     | 97.87              | <input checked="" type="checkbox"/> |                      |
| Twin Rivers Technologies          | Graffiti Remover            | 10                     | 98.85              | <input checked="" type="checkbox"/> |                      |
| Spartan Chemical Company          | Soy Strong                  | 10                     | 97.78              | <input checked="" type="checkbox"/> |                      |
| Tarksol Inc                       | Tarksol NPB                 | 10                     | 97.01              | <input checked="" type="checkbox"/> |                      |
| United Laboratories International | Smart Solve 605             | 10                     | 98.04              | <input checked="" type="checkbox"/> |                      |
| Vertec BioSolvents                | VertecBio Gold 3            | 10                     | 97.87              | <input checked="" type="checkbox"/> |                      |

Conclusion: All eight products removed more than 85% of the cutting fluid from steel using manual wiping