

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010  
DateRun: 06/18/2010  
Experimenters: Jason Marshall  
ClientType: Cleaner Manufacturer  
ProjectNumber: Project #1  
Substrates: Liquid  
PartType: Coupon  
Contaminants: None  
Cleaning Methods: Immersion/Soak  
Analytical Methods: pH

Purpose: To measure pH level following EPA Method 9040.

Experimental Procedure: Method 9040 is used to measure the pH of aqueous wastes and those multiphase wastes where the aqueous phase constitutes at least 20% of the total volume of the waste.  
The pH of the sample is determined electrometrically using either a glass electrode in combination with a reference potential or a combination electrode. The measuring device is calibrated using a series of standard solutions of known pH. The VWR Scientific 8000 Series pH Meter system was calibrated using two points.

The sample and/or buffer solution was placed in a clean glass beaker using a sufficient volume to cover the sensing elements of the electrodes and to give adequate clearance for the magnetic stirring bar. The samples and buffer were both at the same temperature (room temperature ~73 F). The electrode was thoroughly rinsed and gently wiped between measuring pH of samples.

Multiple readings were taken for each of the buffers and sample.

Results: Buffer solutions of 4.00, 7.00 and 10.00 were taken prior to measuring sample of cleaning product. The solution pH was found to be 9.1, 9.0 and 9.1.

| Solution              | pH   |
|-----------------------|------|
| Buffer 4.00           | 4.1  |
|                       | 4.1  |
|                       | 4.1  |
| Buffer 7.00           | 7.1  |
|                       | 7.1  |
|                       | 7.1  |
| Buffer 10.00          | 10.0 |
|                       | 10.0 |
|                       | 10.0 |
| Nutrisol-Calsoft L 40 | 9.1  |
|                       | 9.0  |
|                       | 9.1  |

Summary:

Conclusion: The solution pH was found to be 9.1, 9.0 and 9.1.