



Lab CHAMP: Hubbard-Hall Analytical Service Technician Caught a Problem Before it Ruined a Batch

In Brief

A manufacturer was faced with dumping an expensive 600-gallon vapor degreasing bath and suffering significant downtime because of low pH levels. Hubbard-Hall's CHAMP program caught the issue before parts were damaged and before the tank would have a need to be dumped. Weekly checks by the Hubbard-Hall Analytical Service Technician alerted the manufacturer to a mechanical issue with the degreasing machine, which turned out to be a clogged drain. Once the drain was quickly repaired, the vapor degreasing machine was working smoothly again, and the Hubbard-Hall Analytical Service Technician continued its weekly checks of levels to ensure it was working properly.

The Challenge

A manufacturer of tubes and cases for the cosmetic and other industries began having issues using its degreasing process to clean parts before a final finish. The pH levels began to drop over time, and they had to continually add more stabilizer to keep the solution from turning to acid.

The company spent several days replenishing the stabilizer to try to correct the low pH levels, but the problems continued. With the bath beginning to turn to acid and ruining parts, the manufacturer faced the expensive proposition of dumping the bath, which would have shut down the production line for an extensive amount of time as it used expensive

chemicals to restart the process. Even then, there was no immediate solution to the issue of the pH dropping.

The Approach

The manufacturer has an agreement with Hubbard-Hall to provide weekly testing of the degreasing process. The process is known as CHAMP for Chemical Handling, Analysis, Management, and Process Services; the goal is to establish and maintain consistent quality, as well as identify issues before they occur.

In fact, Hubbard-Hall Analytical Service Technician Bill Russell is the one who discovered the issue with the pH during one of his weekly visits to the

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manufacturer, in which he takes samples and checks various levels. He began noticing the pH dropping and had the manufacturer add more stabilizers; when the problem continued, Russell notified plant management that a serious problem was occurring with the degreasing machine, which holds almost 600 gallons

Oil and Grease

Excess oil and grease can cause a 32% increase in wastewater treatment costs. For example, a 100,000-gallon tank of wastewater with a pH of 10.0 and a total suspended solids (TSS) concentration of 100 mg/L can produce 100,000 gallons of sludge per year.

High Ammonia

CC-1222