

## APPLICATION NOTE

# Reclamation and Disposal of Indium Sulfamate Plating Bath Solution

### Introduction

A properly maintained indium sulfamate plating bath contains 30–60 grams of indium metal per liter of plating bath solution, depending on the solution age. Due to the high value of indium metal and environmental regulations, it may be desirable to reclaim the indium metal and render the solution environmentally benign for easy disposal. Below are the steps to accomplish this:

1. The pH of the solution should be raised to 7 (neutral) with additions of either NaOH or KOH. Around a pH of 4, indium hydroxide,  $\text{In}(\text{OH})_3$  (milk-white in color), will begin to precipitate out of solution. The pH can be checked with a pH monitor or pH indicator strips.
2. After allowing the indium hydroxide precipitate to settle, the remaining liquid portion can be decanted off and, depending on local regulations, pumped to a drain. Please consult the appropriate environmental agencies in your area for proper disposal.
3. After decanting, a white slurry should be left.
4. Filter the slurry and thoroughly rinse the cake with water to remove as many contaminants as possible.
5. The indium hydroxide cake can then be packaged appropriately (i.e., sealed in a plastic bag, etc.) and sent to an indium reclaimer.

**Note:** In order to reduce shipping charges, the indium cake can be baked to drive off the remaining moisture, thereby reducing the shipping weight.

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