

# **PFA Trace Metals Leaching Study -- Determining Future Improvements in Bulk Chemical Delivery Distribution Systems**

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## **Abstract**

Trace Metal contamination in process chemicals can detrimentally affect performance of the electronic device on the wafer. Bulk chemical delivery systems use "high purity" plastics (generally PFA based) for distribution system tubing, valves, fittings, and vessels to enable clean delivery of process chemicals to wafer processing tools. This Trace Metals extraction (leaching) study determined the amount and rate that trace metals diffuse out of PFA plastics into process chemicals over time. The study also determines whether transition to higher purity PFA resins will be required in the near future to meet increasingly stringent purity requirements for the wafer manufacturing process.