

**ABSTRACT OF THE DISCLOSURE**

**TITLE OF INVENTION: GAS PHASE CLEANING AGENTS FOR REMOVING METAL-CONTAINING CONTAMINANTS FROM INTEGRATED CIRCUIT ASSEMBLIES AND A PROCESS FOR USING THE SAME**

**This invention is a vapor-phase process for cleaning metal-containing contaminants from the surfaces of integrated circuits and semiconductors between the numerous fabricating steps required to manufacture the finished electronic devices. The process employs cleaning agents comprising an effective amount of hexamethyldisilazane. The process comprises contacting the surface to be cleaned with an effective amount of the desired cleaning agent at a temperature sufficient to form volatile metal-ligand complexes on the surface of the substrate to be cleaned. The volatile metal-ligand complexes are sublimed from the surfaces of the substrate providing a clean, substantially residue-free surface.**