

ELECTROPLATING SOLUTION FOR ELECTROPLATING LEAD AND LEAD/TIN ALLOYS

Abstract

An electroplating solution for plating bright tin, lead, or tin-lead alloy solder
5 coatings in high speed electroplating applications. The electroplating solution includes
an alkane or alkanol sulfonic acid electrolyte, a non-ionic surfactant, a grain refiner and
two brightening agents: an aromatic aldehyde and a carboxylic acid. In one embodiment
of the electroplating solution, the sulfonic acid electrolyte is methane sulfonic acid, the non-
ionic surfactant is octylphenoxy(10)polyethoxy ethanol, the grain refiner is
10 phenolphthalein, the aromatic aldehyde is chlorobenzaldehyde, and the carboxylic acid is
methacrylic acid.