

# Tin-Bismuth

## SLOTOLLOY SNB 30 1

Tin-Bismuth SLOTOLLOY SNB 30 1 is a highly acidic, fluoride-free electrolyte used to deposit dull, silky tin-bismuth coatings containing up to 5% bismuth.

The process was developed as a substitute for tin-lead alloy electrolytes. The primary application is therefore plating of electrotechnical and electronic components, where the solderability of the finish is important.

The additives are non-foaming and so the electrolyte is therefore suitable for high speed applications.

The formulation of the additives minimizes the usual problem of bismuth cementation on plated surfaces by current interruption.

The solderability of the components remains good even after similar ageing tests to those usually carried out on tin-lead deposits. The soldering tests were performed using a tin-silver eutectic soldering bath (96.5 % tin, 3.5 % silver).

Tin-bismuth coated components are a possible alternative for tin-lead coated components for the use with lead-free solders.

The additives required for electrolyte make-up and operation meet the requirements of the RoHS (Restriction of *(the use of certain)* Hazardous Substances) EU Directive 2011/65/EU relating to the limit of lead, mercury, cadmium, Cr(VI), polybrominated Biphenyls and polybrominated Diphenyl Ethers.

The information in this data sheet is based on laboratory as well as practical experience. Figures quoted for operating limits and replenishment quantities are for guidance. Actual values necessary will depend on the components being plated (material and geometry), their application and plating plant conditions.

### Important:

Please read this instruction carefully prior to the use of the process and carefully follow all the parameters that have a direct influence on the operation. We reserve the right to make technical changes. In the interest of safety, please pay attention to the hazard warnings on the labels of the containers. The minimum shelf life of the products is included on the labels and is also available in the appropriate Quality Assurance (QA03).

The current IMDS number of the layer deposited from the process is available on the internet at [www.schloetter.com/downloads](http://www.schloetter.com/downloads).

For the storage of chemical products the TRGS 510 must be followed.

**If the additives used in this process contain a SVHC-substance, then this will be specified in the corresponding Material Safety Data Sheet, section 15.**

