

# Technical Bulletin

## TSC PURALLOY® PURE TIN (SN100) SOLDER ALLOY

### DESCRIPTION

Puralloy® Pure Tin is primarily used in the alloying of a wide variety of solder alloys. Commercially it has been used for many years in plating steel containers for the storage and preservation of food stuffs. Tin has also been used in industry as white metal bearings for heavy rolling stock on the railways. Tin is non toxic and easily worked due to its malleability.

Tin plating of iron will protect the latter from corrosion. Tin plating of pipes and valves maintain purity in potable water systems. Whereas tin in its molten state is the base for float plate-glass production. Pure tin is fundamentally weak and as such has no real structural use unless it is alloyed with such materials as bronzes, pewters, industrial bearing metals and many lead-based solders. Pure tin can also be found in the restoration and resurfacing of kitchen pots and pans.

### FEATURES & BENEFITS

- Lead-Free Solder Alloy
- Melt Point – 232°C
- Useful when recoating kitchenware.
- Excellent wetting on Copper and Brass.
- Non-Toxic
- Ideal for potable water
- Good wetting and capillary action
- Available in a range of formats including Bar, Tinman Sticks, Blowpipe and Feed Wire

### TYPICAL COMPOSITION

Typical Alloy Composition
Sn: 100

### MELTING TEMPERATURE RANGE

Typical Melting Temperature
232°C

### TECHNICAL SPECIFICATIONS

	Specifications
Density (g/cm <sup>3</sup> )	7.29
Brinell Hardness @ 20°C	3.9
Melting Point	232°C
Tensile Strength @ 15°C	2,100 psi
Thermal Conductivity @ 20°C	65 W/mK

### HANDLING & STORAGE

Indefinite shelf life applies to solid solder. For other product categories, refer to those specific TDSs. Consult Pure Tin MSDS for additional handling procedures and precautions.

[solderconnection.com](http://solderconnection.com)

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## HEALTH & SAFETY

Use with adequate ventilation and proper personal protective equipment. Refer to the accompanying Safety Data Sheet for any specific emergency information. Do not dispose of any hazardous materials in non-approved containers.

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