

## **SILVABRITE®** (Clean 'n Brite™)

### ***NOMINAL COMPOSITION***

Tin	Remainder	Copper	0.08% Max	Arsenic	0.05% Max
Silver	3.6% ± 0.2%	Cadmium	0.005% Max	Iron	0.02% Max
Lead	0.1% Max	Aluminum	0.005% Max	Zinc	0.005% Max
Antimony	0.12% Max	Bismuth	0.15% Max		

### ***PHYSICAL PROPERTIES***

Color	White
Melting Point (Solidus)	430°F (221°C)
Flow Point (Liquidus)	430°F (221°C)
Specific Gravity	7.38
Density (lb /in <sup>3</sup> )	.267
Electrical Conductivity (% IACS)*	14.0

\*IACS = International Annealed Copper Standard

### ***SOLDERING CHARACTERISTICS***

Silvabrite alloy is considered to be high strength soft solder. Silvabrite exhibits higher creep strengths in comparison to standard tin-lead soft solders. Silvabrite alloys provide satisfactory color match for stainless steel assemblies. When used with TEC flux or Liquid Solder Flux, Silvabrite alloys will readily wet stainless steel base metals. Silvabrite can also be used for copper, brass or steel base materials when paired with Silvabrite Paste Soldering Flux/Clean 'n Brite Flux.

Silvabrite is eutectic alloy that exhibits free flowing characteristics with limited ability to bridge large joint gaps. thus joint clearances of 0.003 – 0.005 in. (0.076 – 0.13 mm) per side are optimum for achieving highest joint strength. Joints with increased clearances can still produce adequate joint strengths depending on final operating conditions. Silvabrite alloys require fluxing when used with open air heating methods such as torch, induction or air atmosphere furnace.

### ***PROPERTIES OF SOLDER JOINTS***

The properties of a soldered joint are dependent upon the base metal, joint design and soldering technique. Typical tensile strength properties for a copper to copper sleeve joint have been reported at 14,000 PSI for a Silvabrite soft solder alloy.

### ***AVAILABLE FORMS***

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

### ***SPECIFICATIONS***

Silvabrite conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Sn96

# Technical Data Sheet

## ***APPLICABLE PRODUCT CODE(S)***

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 63-965, 28639.

Distribution P/N: 56619, 53114.

## ***SAFETY INFORMATION***

---

The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for Silvabrite.

## ***WARRANTY CLAUSE***

---

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Lucas-Milhaupt, Inc. specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.