

## Sn95/Sb5 – Inorganic Acid 3.3% Core

### ***NOMINAL COMPOSITION***

Tin	94% Min	Lead	0.1% Max	Arsenic	0.01% Max
Antimony	4.5% –5.5%	Cadmium	0.005% Max	Iron	0.04% Max
Copper	0.08% Max	Aluminum	0.005% Max	Zinc	0.005% Max
Silver	0.015% Max	Bismuth	0.15% Max		

Flux – 3.3% Inorganic Acid Core by weight

### ***PHYSICAL PROPERTIES***

#### **Solder Alloy**

Color	White
Melting Point (Solidus)	450°F (233°C)
Flow Point (Liquidus)	464°F (240°C)
Specific Gravity	7.26
Density (Lbs/in <sup>3</sup> )	0.263
Bulk Room Temperature Tensile Strength (PSI)	5,900

#### **Flux**

Type	Water Soluble Inorganic Acid
Physical State	Solid
Melting Point	250°F (120°C)
Chloride Content	4%

### ***SOLDERING CHARACTERISTICS***

Sn95/Sb5 is a general-purpose solder used in applications involving soldering of copper and copper alloys and/or ferrous base alloys where use of lead containing solder is not permitted. This soft solder may be used in applications involving higher service temperatures. Typical applications for this alloy include copper components in air conditioning industry. This alloy is also recommended in applications involving food handling or drinking water components where use of lead containing alloys is not permitted. Antimony bearing alloys are not recommended in soldering of brass parts due to formation of a brittle Sb-Zn inter-metallic.

This flux-cored solder can be used on difficult to solder materials where rosin based fluxes and electronic grade organic fluxes are not strong enough. It has been used effectively in many non-electronic applications such as lamps, fuses, and jewelry. The flux is active on copper, brass, bronze, steel, nickel, and stainless steel.

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

The properties of a soldered joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal.

### ***REMOVAL OF FLUX RESIDUE***

The post-soldering residues of this product are completely soluble in water. Cold water soaking can be used. However, hot water will greatly accelerate the cleaning process.

## ***AVAILABLE FORMS***

---

Flux-Cored Wire on 5lb or 10lb spools.

## ***SPECIFICATIONS***

---

Sn95/Sb5 alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Sb5 WAC 3

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

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 63-918

## ***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 95/5.

## ***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.