

## CU 870

### ***NOMINAL COMPOSITION***

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Copper	Remainder
Tin	12.5% ± 0.5%
Phosphorus	0.015% - 0.25%

### ***PHYSICAL PROPERTIES***

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Color	Copper-Brass
Melting Point (Solidus)	1517°F (825°C)
Flow Point (Liquidus)	1814°F (990°C)
Brazing Temperature Range	1820°F - 1920°F (995°C - 1050°C)
Specific Gravity	8.69
Density (Lbs /in <sup>3</sup> )	0.314

### ***PRODUCT USES***

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CU 870 is a copper-tin filler metal used for brazing of ferrous alloys such as steel. This alloy is typically used in furnace brazing of steels where use of pure copper is not permissible.

### ***BRAZING CHARACTERISTICS***

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CU 870 has good wetting characteristics on ferrous based materials, particular steel in a furnace brazing applications. Maximum strength and joint integrity are obtained where joint clearance falls within the range of 0.003 in. - 0.005 in. per side.

### ***PROPERTIES OF BRAZED JOINTS***

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

### ***AVAILABLE FORMS***

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Wire, rods, and specialty preforms per customer specification.

### ***SPECIFICATIONS***

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CU 870 alloy conforms to the following specifications:

- DIN1733 SG-CuSn12
- EN ISO 24373 Cu 5410 CuSn12P
- PRO/Cu Sn12
- International Organization for Standardization (ISO) 17672 Cu 925
- British Standard (BS) EN 1044 Cu 202
- Deutsches Institut für Normung (DIN) 8513 Part 1 L-CuSn12

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

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000369, Legacy Code: 60-870

## ***SAFETY INFORMATION***

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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 CU 870.

## ***WARRANTY CLAUSE***

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