

69-054

NOMINAL COMPOSITION

Tin	9.50% - 10.50%
Phosphorus	6.50% - 7.50%
Nickel	5.50% - 6.50%
Copper	Remainder
Other Elements (Total)	0.5% Max

PHYSICAL PROPERTIES

Color	Light Brown
Brazing Temperature Range	1200°F - 1250°F Typical
Specific Gravity	6.90
Density (lbs/in ³)	.249
Electrical Conductivity (%IACS) ⁽¹⁾	N/A
Electrical Resistivity (Microhm-cm)	N/A

⁽¹⁾ IACS = International Annealed Copper Standard

PRODUCT USES

69-054 is economical brazing filler metal suitable for joining copper to copper and copper to copper alloys where critical impact or vibration stresses are not encountered in service. This alloy was developed for use where close fit-ups cannot be maintained.

BRAZING CHARACTERISTICS

69-054 is a copper rich, low temperature, brazing filler metal that is free flowing. Because of Nickel content this alloy proves to have good gap filling abilities. The self-fluxing property of 69-054 is effective on copper only. Copper base alloys, such as brass or bronze, may be brazed with 69-054 if powder is combined with a flux containing binder system to manufacture the paste.

PROPERTIES OF BRAZED JOINTS

Joints made with 69-054 are entirely satisfactory on copper and copper alloys if good fit-up and adequate shear area are maintained.

CORROSION RESISTANCE

The corrosion resistance of 69-054 is comparable to that of copper except when exposed to sulfur compounds, sulfur-containing gas or oil, especially at elevated temperatures. Under these conditions 69-054 undergoes progressive corrosive deterioration, and should not be used.

AVAILABLE FORMS

Powder and paste.

SPECIFICATIONS

69-054 alloy conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 69-054.

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 69-054.

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.