

## KX3900SSKNC, KX3933SSKNC and KX3941SSKNC

### ***NOMINAL COMPOSITION***

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Aluminum	Remainder
Silicon	12.0% ± 1.0%
Other Elements (Each)	0.05% Max
Other Elements (Total)	0.15% Max

### ***PHYSICAL PROPERTIES***

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Color	Grayish-White
Melting Point (Solidus)	1070°F (577°C)
Flow Point (Liquidus)	1080°F (582°C)
Brazing Range	1080°F - 1120°F (582°C - 604°C)
Specific Gravity <sup>(1)</sup>	2.66
Density (Lbs/in <sup>3</sup> ) <sup>(1)</sup>	0.096

<sup>(1)</sup> Metal Only

### ***PRODUCT USES***

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KX39—SSKNC paste is a stable mixture of aluminum silicon filler metal and KX-200 flux, a more reactive non-corrosive flux. The paste can be used in controlled atmosphere furnace, torch or induction brazing processes for joining a wide variety of aluminum alloys especially magnesium containing aluminum alloys such as 6061 and 6063. No post braze cleaning operations are required. The flux and its residues are non-hygroscopic and non-corrosive.

KX3900SSKNC— This is the least viscous of the KX39—SSKNC paste group. It can be used in joints containing very tight clearance due to its cold slump characteristics. The paste can seep deep into crevices prior to brazing. This pre flow characteristic allows capillary action to not have to flow as far to fill the joint.

KX3933SSKNC— This paste is ideal for shear depths slightly longer than usual. Viscosity is to flow slowly and penetrate tight spaces without run off. It is more fluid than the KX3941SSKNC paste which would allow it to slump further into longer joints. KX3933SSKNC is not a dispensable flux because it tends to settle out of solution over time.

KX3941SSKNC— This is the most viscous of the KX39—SSKNC paste group. It is also the only one of the pastes that can suspend itself long enough without separating to be used in dispensable applications.

### ***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. Joint clearances of 0.003 in - 0.006 in (0.076 mm- 0.152 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.

### ***POST CLEANING***

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KX39—SSKNC contains a noncorrosive flux and requires no post braze cleaning operation; however, if it is desired to remove the residue, a 50/50 mixture of nitric acid and distilled water will remove residue. Agitate the part in the solution for 30 seconds to remove all flux.

## ***WARRANTY & STORAGE***

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Lucas-Milhaupt, Inc. warrants their Brazing and Soldering Paste products for 90 days from the date of shipment if stored in the original unopened container. Optimal storage conditions would be 65°F (18°C) - 75°F (24°C), clean and dry. It is recommended that the paste products are stored away from direct heat. Paste may require mixing to regain a homogenous mixture before application.

The 90 day warranty should not be interpreted as the shelf or useful life of the product. The paste products may be used well beyond the 90 day warranty, unless customer testing or production results indicate unsatisfactory performance of the product.

## ***AVAILABLE PACKAGING***

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KX39—SSKNC aluminum brazing paste is available in various size syringes, jars and cartridges.

## ***SPECIFICATIONS***

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Aluminum powder chemistry is manufactured in accordance to the following specifications:

- AWS A5.8 BALS<sub>i</sub>-4
- QQ-B-655 (FS-BALS<sub>i</sub>-4)
- Alcoa 718
- AA 4047
- AMS 4185

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

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

- KX3900SSKNC: 82-133/62-718/35A1
- KX3933SSKNC: 84-365
- KX3941SSKNC: 82-133/62-718/40A1; 84-366

## ***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 KX3900SSKNC, KX3933SSKNC and KX3941SSKNC.

## ***WARRANTY CLAUSE***

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