

TABLE 1
CHEMICAL COMPOSITION REQUIREMENTS, PERCENT

AWS Classification	UNS Number ^c	Common Name	Composition, Weight Percent ^{a,b}											Total Other Elements
			Cu Including Ag ^e	Zn	Sn	Mn	Fe	Si	Ni Including Co ^f	P	Al	Pb	Ti	
ERCu	C18980	Copper	98.0 min	—	1.0	0.50	—	0.50	—	0.15	0.01	0.02	—	0.50
ERCuSi-A	C65600	Silicon bronze (copper-silicon)	Remainder	1.0	1.0	1.5	0.50	2.8– 4.0	—	—	0.01	0.02	—	0.50
ERCuSn-A	C51800	Phosphor bronze (copper-tin)	Remainder	—	4.0– 6.0	—	—	—	—	0.10– 0.35	0.01	0.02	—	0.50
ERCuSn-C	C52100	Phosphor bronze (copper-tin)	Remainder	0.20	7.0– 9.0	—	0.10	—	—	0.10– 0.35	0.01	0.02	—	0.50
ERCuNi ^d	C71581	Copper-nickel	Remainder	—	—	1.0	0.40– 0.75	0.25	29.0– 32.0	0.02	—	0.02	0.20 to 0.50	0.50
ERCuAl-A1	C61000	Aluminum bronze	Remainder	0.20	—	0.50	—	0.10	—	—	6.0– 8.5	0.02	—	0.50
ERCuAl-A2	C61800	Aluminum bronze	Remainder	0.02	—	—	1.5 0.5 - 1.5	0.10	—	—	8.5– 11.0	0.02	—	0.50
ERCuAl-A3	C62400	Aluminum bronze	Remainder	0.10	—	—	2.0– 4.5	0.10	—	—	10.0– 11.5	0.02	—	0.50
ERCuNiAl	C63280	Nickel-aluminum bronze	Remainder	0.10	—	0.60– 3.50	3.0– 5.0	0.10	4.0– 5.5	—	8.50– 9.50	0.02	—	0.50
ERCuMnNiAl	C63380	Manganese-nickel aluminum bronze	Remainder	0.15	—	11.0– 14.0	2.0– 4.0	0.10	1.5– 3.0	—	7.0– 8.5	0.02	—	0.50

NOTES:

- Analysis shall be made for the elements for which specific values are shown in this table. If, however, the presence of other elements is indicated in the course of routine analysis, further analysis shall be made to determine that the total of these other elements is not present in excess of the limits specified for 'Total other elements' in the last column in this table.
- Single values shown are maximum, unless otherwise noted.
- ASTM D5-56/SAE HS-1086, *Metals & Alloys in the Unified Numbering System*.
- Sulfur shall be 0.01% maximum for the ERCuNi classification.
- Ag may or may not be present.
- Co may or may not be present.