

Title (en)
Lead-free, free-cutting copper alloys

Title (de)
Bleifreie Automatenkupferlegierung

Title (fr)
Alliage de cuivre de décolletage sans plomb

Publication
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Application
EP 05017189 A 19981116

Priority
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Abstract (en)
The present invention relates to lead free, free cutting copper alloys and methods of their manufacture. In particular, the present invention is directed to a lead-free, free-cutting copper alloy which comprises 62 to 78 percent, by weight, of copper; 2.5 to 4.5 percent, by weight, of silicon; at least one element selected from among 0.3 to 3.0 percent, by weight, of tin, 0.2 to 2.5 percent, by weight, of aluminium, and 0.02 to 0.25 percent, by weight, of phosphorous; and at least one element selected from among 0.7 to 3.5 percent, by weight, of manganese and 0.7 to 3.5 percent, by weight, of nickel; and the remaining percent, by weight, of zinc and wherein the metal structure of the free cutting copper alloy has at least one phase selected from the gamma (gamma) phase and the kappa (kappa) phase. <IMAGE>

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