

Title (en)
NICKEL-FREE PHOSPHATIZATION PROCESS

Title (de)
NICKELFREIES PHOSPHATIERVERFAHREN

Title (fr)
PROCEDES DE PHOSPHATAGE SANS NICKEL

Publication
EP 0717787 A1 19960626 (DE)

Application
EP 94925483 A 19940829

Priority
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Abstract (en)
[origin: US5792283A] PCT No. PCT/EP94/02848 Sec. 371 Date Mar. 6, 1996 Sec. 102(e) Date Mar. 6, 1996 PCT Filed Aug. 29, 1994 PCT Pub. No. WO95/07370 PCT Pub. Date Mar. 16, 1995A process for phosphating surfaces of steel, galvanized or alloy-galvanized steel, aluminum, aluminized or alloy-aluminized steel. The process is particularly useful for treating metal surfaces which are to be cathodic electrocoated. The process uses a nickel, cobalt, copper, nitrite and oxo-anion of halogen free phosphating solution containing 0.3 to 2.0 g/l Zn(II), 0.3 to 4 g/l Mn(II), 5 to 40 g/l phosphate ions and at least one of 0.5 to 5 g/l hydroxylamine and 0.2 to 2 g/l m-nitrobenzene sulfonate wherein the ratio by weight of Zn(II) to Mn(II) is not greater than 2.

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IPC 8 full level
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US 5792283 A 19980811; AT E162233 T1 19980115; AU 678284 B2 19970522; AU 7537394 A 19950327; BR 9407485 A 19960625; CA 2171180 A1 19950316; CN 1041001 C 19981202; CN 1129961 A 19960828; CZ 286514 B6 20000517; CZ 67396 A3 19961211; DE 59405046 D1 19980219; EP 0717787 A1 19960626; EP 0717787 B1 19980114; ES 2111949 T3 19980316; JP 3348856 B2 20021120; JP H09502224 A 19970304; KR 100327287 B1 20021122; KR 960705076 A 19961009; WO 9507370 A1 19950316

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