

Title (en)
Bath and process for phosphating metal substrates, concentrates for preparing the bath and metal substrates treated according to the process

Title (de)
Bad und Verfahren zum Phosphatieren von Metallgegenständen, Konzentrate zur Herstellung des Bades und Metallgegenständen behandelt nach dem Verfahren

Title (fr)
Bain et procédé de phosphatation de substrats métalliques, concentré pour la préparation de ce bain et substrats métalliques traités à l'aide de ce procédé

Publication
EP 0826792 B1 20000412 (FR)

Application
EP 97402032 A 19970901

Priority
FR 9610684 A 19960902

Abstract (en)
[origin: EP0826792A1] A new composition for a phosphating bath for the treatment of metallic substrates based on steel, possibly coated with Zn or Zn alloyed with Fe, Ni, Al or Mn, or Al-based (possibly alloyed), at a pH of 1 - 5.5. The composition contains classical components comprising :- 0.3 - 25(preferably 0.5 - 10) g/l of Zn ions ; 5 - 50(preferably 8 - 30) g/l of phosphate ions ; and about 0.01 - 10(preferably 0.03 - 3) g/l of a trivalent Co complex represented by one or other of the formulae :- $\text{Co}(\text{Ligand})_n\text{Üc (I)}$ $\text{Co}(\text{Ligand})_n\text{ZpÜc (II)}$ -n, p = 1 - 6, with (formula II) n+p ≤ 6 ; -c = charge on the complex, positive or negative according to the charge of the ligand and of Z ; -the Ligand is chosen from the ions of a group comprising NO₂, CN, CO₃ and SO₃, a group comprising oxalate, acetate, citrate, gluconate, tartrate and acetylacetonate, and compounds of formula N (R₁, R₂, R₃), in which R₁, R₂ and R₃ are (independently) H, 1 - 6C alkyl, hydroxyalkyl, hydroxy, alkylamine, hydroxyalkylamine, carboxylic acids or aminocarboxylic acids and their salts ; and -Z is chosen from Cl, Br, F, I, OH, NO₃, SCN, PO₄, S₂O₃, MoO₄, SeO₄ and H₂O, given that a given complex may comprise one or more ligands and one or more Z different from one another. Also claimed, is the phosphating process, a concentrate for the preparation of a phosphating bath, the use of the Co complex as an accelerator and metallic substrates treated by the process.

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CPC (source: EP US)
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