

Title (en)
COMPOSITION AND PROCESS FOR TREATING METALS

Title (de)
ZUSAMMENSETZUNG UND VERFAHREN ZUR BEHANDLUNG VON METALLEN

Title (fr)
COMPOSITION ET PROCEDE POUR LE TRAITEMENT DES METAUX

Publication
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Application
EP 00975346 A 20001024

Priority

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Abstract (en)
[origin: WO0132952A1] A chromium free conversion coating at least equivalent in corrosion protective quality to conventional chromate conversion coatings can be formed on metals, particularly cold rolled steel, by a dry-in-place aqueous acidic liquid that preferably has a pH value between 0.5 and 5.0 and comprises: (A) "fluorometallate" anions consisting of (i) at least four fluorine atoms, (ii) at least one atom of an element selected from the group consisting of titanium, zirconium, hafnium, silicon, aluminum, and boron, and, optionally, one or more of (iii) ionizable hydrogen atoms and (iv) oxygen atoms; (B) a component of divalent or tetravalent cations of elements selected from the group consisting of cobalt, magnesium, manganese, zinc, nickel, tin, copper, zirconium, iron, and strontium in such an amount that the ratio of the total number of cations of this component to the number of anions in component (A) is at least about 1:5 but not greater than about 3:1; (C) a component selected from the group consisting of phosphorus-containing inorganic oxyanions and phosphonate anions; and (D) a component of polymers of hydroxy styrene, modified by substitution on the aromatic rings of the polymers of substituted aminomethyl moieties, in which the substituents (other than the carbon atom that is directly bonded to an aromatic ring in the polymer) on the amino nitrogen atom jointly contain at least two carbon atoms and at least one hydroxy moiety but neither of these substituents on the amino nitrogen atom individually contains more than half as many hydroxyl moieties as it has carbon atoms, unless it contains only one carbon atom.

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