

Title (en)

PROCESS FOR THE TREATMENT OF METAL SURFACES

Publication

EP 0161667 B1 19881026 (DE)

Application

EP 85105917 A 19850514

Priority

US 61166384 A 19840518

Abstract (en)

[origin: US4496404A] A composition and process for treating ferrous substrates including black plate container bodies to inhibit in-process corrosion or rusting of the surfaces thereof by contacting the ferrous substrate with aqueous acidic composition containing controlled effective amounts of aluminum, fluoride, optionally a second metal selected from the group consisting of zirconium, titanium, hafnium and mixtures thereof and hydrogen ions to provide a pH on the acid side.

IPC 1-7

C23C 22/34; **C23F 1/28**; **C23G 1/08**

IPC 8 full level

C23C 22/34 (2006.01); **C23F 1/28** (2006.01); **C23F 11/00** (2006.01); **C23F 11/18** (2006.01); **C23G 1/08** (2006.01)

CPC (source: EP US)

C23C 22/34 (2013.01 - EP US)

Cited by

EP0410497A1; EP0356855A3; EP0459549A1; EP0459550A1; US5294266A; US6060122A; KR100466418B1

Designated contracting state (EPC)

AT BE CH DE FR IT LI NL SE

DOCDB simple family (publication)

US 4496404 A 19850129; AT E38254 T1 19881115; AU 4223085 A 19851121; AU 576574 B2 19880901; BR 8502349 A 19860121; CA 1264538 A 19900123; DE 3517280 A1 19851128; DE 3565863 D1 19881201; EP 0161667 A1 19851121; EP 0161667 B1 19881026; ES 543711 A0 19860101; ES 8603589 A1 19860101; GB 2158845 A 19851120; GB 2158845 B 19871104; GB 8512285 D0 19850619; JP S60255986 A 19851217; MX 164560 B 19920826; NZ 212007 A 19880929; ZA 853561 B 19851224

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