

Title (en)
COMPOSITION FOR METAL SURFACE TREATMENT, TREATING LIQUID FOR SURFACE TREATMENT, METHOD OF SURFACE TREATMENT, AND SURFACE-TREATED METALLIC MATERIAL

Title (de)
ZUSAMMENSETZUNG ZUR METALLOBERFLÄCHENBEHANDLUNG, BEHANDLUNGSFLÜSSIGKEIT ZUR OBERFLÄCHENBEHANDLUNG, OBERFLÄCHENBEHANDLUNGSVERFAHREN UND OBERFLÄCHENBEHANDELTES METALLISCHES MATERIAL

Title (fr)
COMPOSITION POUR LE TRAITEMENT DE SURFACE D'UN MÉTAL, LIQUIDE DE TRAITEMENT POUR TRAITEMENT DE SURFACE, PROCÉDÉ DE TRAITEMENT DE SURFACE ET MATÉRIAU MÉTALLIQUE TRAITÉ EN SURFACE & xA;

Publication
EP 2302097 A4 20110406 (EN)

Application
EP 05811597 A 20051202

Priority
• JP 2005022176 W 20051202
• JP 2004356059 A 20041208

Abstract (en)
[origin: US2007272900A1] A surface-treating composition which is a treating liquid containing no ingredients harmful to the environment; such a treating liquid has been difficult to obtain with any conventional technique. The composition enables a coating film having excellent corrosion resistance after coating to be deposited through surface treatment on a surface of a metallic material, e.g., an iron-based metallic material. The composition, which is for the surface treatment of a metal comprising iron and/or zinc, comprises the following ingredients (A), (B), and (C): (A) a compound containing at least one element selected from the group consisting of titanium, zirconium, hafnium, and silicon; (B) a compound containing yttrium and/or a lanthanide element; and (C) nitric acid and/or a nitric acid compound. In the composition, the ratio of the total mass concentration B of the yttrium and/or lanthanide element in the ingredient (B) to the total mass concentration A of the element(s) in the ingredient (A), $K1=B/A$, is $0.05 \leq K1 \leq 50$ and the ratio of the total mass concentration C of nitrogen atoms in the ingredient (C) in terms of NO_3 concentration to the total mass concentration A, $K2=C/A$, is $0.01 \leq K2 \leq 200$.

IPC 8 full level
C23C 22/06 (2006.01); **B32B 15/08** (2006.01); **C23C 22/50** (2006.01); **C23C 22/53** (2006.01); **C23C 22/83** (2006.01); **C25D 11/00** (2006.01)

CPC (source: EP US)
C23C 22/34 (2013.01 - EP US); **C23C 22/50** (2013.01 - EP US); **C23C 22/53** (2013.01 - EP US); **C23C 22/83** (2013.01 - EP US); **C25D 5/34** (2013.01 - EP US); **C25D 9/08** (2013.01 - EP US); **C25D 9/10** (2013.01 - EP US)

Citation (search report)
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• [X] WO 03093532 A2 20031113 - PPG IND OHIO INC [US]
• [X] EP 0564286 A2 19931006 - NIPPON PAINT CO LTD [JP]
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• [A] US 5932083 A 19990803 - STOFFER JAMES O [US], et al
• See references of WO 2006062037A1

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US 2007272900 A1 20071129; AU 2005312758 A1 20060615; AU 2005312758 B2 20100610; BR PI0518423 A2 20081125; BR PI0518423 B1 20180123; CA 2591214 A1 20060615; CA 2591214 C 20170725; CN 101076615 A 20071121; CN 101076615 B 20100908; EP 2302097 A1 20110330; EP 2302097 A4 20110406; EP 2302097 B1 20141119; ES 2529318 T3 20150219; JP 2006161117 A 20060622; JP 4242827 B2 20090325; MX 2007006729 A 20070725; PL 2302097 T3 20150430; RU 2007125572 A 20090120; RU 2395622 C2 20100727; WO 2006062037 A1 20060615

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