

Title (en)  
METHOD FOR TREATING METALLIC SURFACES

Title (de)  
VERFAHREN ZUR BEHANDLUNG METALLISCHER OBERFLÄCHEN

Title (fr)  
PROCEDE DE TRAITEMENT DE SURFACES METALLIQUES

Publication  
**EP 0948666 A1 19991013 (DE)**

Application  
**EP 97954820 A 19971218**

Priority  
• DE 19654642 A 19961228  
• EP 9707100 W 19971218

Abstract (en)  
[origin: WO9829580A1] The invention relates to a method for treating metallic surfaces consisting of zinc, magnesium or aluminium or of the alloys of zinc, magnesium or aluminium, to which lacquer, coatings of plastic material, paint, sealants or adhesives are applied after treatment. The treatment of the metallic surfaces takes place at between 10 DEG C and 100 DEG C by immersion, spraying or rolling with an aqueous solution. The solution has a pH of between 2 and 13 and contains one or more compounds of the type XYZ at a concentration of between 10<-5> and 1 mol/l. Y is an organic group containing between 2 and 50 C atoms and has a straight-chain structure. X is a COOH, HSO<sub>3</sub>, HSO<sub>4</sub>, (OH)<sub>2</sub>PO, (OH)<sub>2</sub>PO<sub>2</sub>, (OH) (OR') PO or (OH) (OR') PO<sub>2</sub> group. Z is a OH, SH, NH<sub>2</sub>, NHR', CN, CH=CH<sub>2</sub>, OCN, epoxy, CH<sub>2</sub>=CR"-COO, acrylamide, COOH, (OH)<sub>2</sub>PO, (OH)<sub>2</sub>PO<sub>2</sub>, (OH) (OR') PO or (OH) (OR') PO<sub>2</sub> group. R' is an alkyl group with between 1 and 4 C atoms. R" is an H atom or an alkyl group with between 1 and 4 C atoms. Groups X and Z are each bonded to group Y in their final positions.

IPC 1-7  
**C23C 22/78**

IPC 8 full level  
**B05D 7/14** (2006.01); **C23C 22/00** (2006.01); **C23C 22/07** (2006.01); **C23C 22/48** (2006.01); **C23C 22/58** (2006.01); **C23C 22/68** (2006.01); **C23C 22/73** (2006.01); **C23C 22/78** (2006.01)

CPC (source: EP KR US)  
**C23C 22/08** (2013.01 - KR); **C23C 22/48** (2013.01 - EP US); **C23C 22/58** (2013.01 - EP US); **C23C 22/66** (2013.01 - KR); **C23C 22/68** (2013.01 - EP KR US); **C23C 22/78** (2013.01 - KR)

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**WO 9829580 A1 19980709**; AT E234948 T1 20030415; AU 6205898 A 19980731; AU 735281 B2 20010705; BR 9713638 A 20000411; CA 2275729 A1 19980709; CA 2275729 C 20070925; DE 19654642 A1 19980917; DE 19654642 C2 20030116; DE 59709588 D1 20030424; DK 0948666 T3 20030707; DK 0948666 T4 20080107; EP 0948666 A1 19991013; EP 0948666 B1 20030319; EP 0948666 B2 20070926; ES 2195202 T3 20031201; ES 2195202 T5 20080401; JP 2001508499 A 20010626; JP 3986092 B2 20071003; KR 100487855 B1 20050509; KR 20000062344 A 20001025; NO 326333 B1 20081110; NO 993118 D0 19990623; NO 993118 L 19990623; TR 199901466 T2 19991021; US 6436475 B1 20020820

DOCDB simple family (application)  
**EP 9707100 W 19971218**; AT 97954820 T 19971218; AU 6205898 A 19971218; BR 9713638 A 19971218; CA 2275729 A 19971218; DE 19654642 A 19961228; DE 59709588 T 19971218; DK 97954820 T 19971218; EP 97954820 A 19971218; ES 97954820 T 19971218; JP 52958098 A 19971218; KR 19997005823 A 19990625; NO 993118 A 19990623; TR 9901466 T 19971218; US 30899199 A 19991217