METALLURGY

C23  COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL; CHEMICAL SURFACE TREATMENT; DIFFUSION TREATMENT OF METALLIC MATERIAL; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL; INHIBITING CORROSION OF METALLIC MATERIAL OR INCRUSTATION IN GENERAL

(C23G)

C23G  CLEANING OR DEGREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS (polishing compositions C09G; detergents in general C11D)

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Cleaning or pickling metallic material with solutions or molten salts (with organic solvents C23G 5/02)

1/02 . with acid solutions
1/025 . . {acidic pickling pastes}
1/04 . . using inhibitors
1/06 . . . organic inhibitors

NOTE

In groups C23G 1/061 - C23G 1/068 an invention is classified in the last appropriate place

1/061 . . . {nitrogen-containing compounds}
1/063 . . . {heterocyclic compounds}
1/065 . . . {sulfur-containing compounds}
1/066 . . . {phosphorus-containing compounds}
1/068 . . . {compounds containing a C=C bond}
1/08 . . Iron or steel

NOTE

In groups C23G 1/081 - C23G 1/088 an invention is classified in the last appropriate place

1/081 . . . {solutions containing H₂SO₄}
1/083 . . . {solutions containing H₃PO₄}
1/085 . . . {solutions containing HNO₃}
1/086 . . . {solutions containing HF}
1/088 . . . {solutions containing organic acids}
1/10 . . Other heavy metals
1/103 . . . {copper or alloys of copper}
1/106 . . . {refractory metals}
1/12 . . Light metals
1/125 . . . {aluminium}
1/14 . . with alkaline solutions

1/16 . . . using inhibitors
1/18 . . . Organic inhibitors
1/19 . . . Iron or steel
1/20 . . . Other heavy metals
1/205 . . . {refractory metals}
1/22 . . . Light metals
1/24 . . . with neutral solutions
1/26 . . . using inhibitors
1/28 . . . with molten salts
1/30 . . . using inhibitors
1/32 . . . Heavy metals
1/34 . . . Light metals
1/36 . . Regeneration of waste pickling liquors

3/00 Apparatus for cleaning or pickling metallic material (with organic solvents C23G 5/04 {; apparatus for continuously conveying articles into baths B65G})

3/02 . . for cleaning wires, strips, filaments continuously
3/021 . . . {by dipping}
3/022 . . . {the objects following a helicoidal path}
3/023 . . . {by spraying}
3/024 . . . {by a combination of dipping and spraying}
3/025 . . . {Details of the apparatus, e.g. linings or sealing means}
3/026 . . . {for guiding the objects}
3/027 . . . {Associated apparatus, e.g. for pretreating or after-treating}
3/028 . . . {for thermal or mechanical pretreatment}
3/029 . . . {for removing the pickling fluid from the objects}
3/04 . . for cleaning pipes
Cleaning or de-greasing metallic material by other methods; Apparatus for cleaning or de-greasing metallic material with organic solvents

NOTE
Mixtures of organic solvents are classified according to the major component using organic solvents containing hydrocarbons containing halogenated hydrocarbons {containing fluorine} {containing only chlorine as halogen atom} {containing chlorine and fluorine} {Perhalogenated hydrocarbons} {Ethanes} {C₂Cl₃F₃} {C₂Cl₄F₂} {containing hydrogen} {Ethylenes} {C₂H₃Cl₂F} {C₂H₃Cl₃F₂} {C₂HCl₂F₃} {Propanes} {C₃H₇ClF₄} {C₂HCl₂F₄} {C₂HCl₃F₃} {characterised by the stabilising or corrosion inhibiting additives} {Hydrocarbons} {Oxygen-containing compounds} {Alcohols} {aliphatic} {aromatic} {Aldehydes or ketones} {Ethers} {Epoxy compounds} {Nitrogen-containing compounds} {Nitro-compounds} {N-heterocyclics} {Sulfur-containing compounds} {Phosphorus-containing compounds} containing oxygen-containing compounds having also nitrogen Apparatus using emulsions