

CPC**COOPERATIVE PATENT CLASSIFICATION****C23G**

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

C23G 1/00

Cleaning or pickling metallic material with solutions or molten salts (with organic solvents [C23G 5/02](#))

[C23G 1/02](#)

- with acid solutions

[C23G 1/025](#)

- • {acidic pickling pastes}

[C23G 1/04](#)

- • using inhibitors

[C23G 1/06](#)

- • • organic inhibitors

NOTE

In groups [C23G 1/061](#) - [C23G 1/068](#) an invention is classified in the last appropriate place

[C23G 1/061](#)

- • • • {nitrogen-containing compounds}

[C23G 1/063](#)

- • • • {heterocyclic compounds}

[C23G 1/065](#)

- • • • {sulfur-containing compounds}

[C23G 1/066](#)

- • • • {phosphorus-containing compounds}

[C23G 1/068](#)

- • • • {compounds containing a C=C bond}

[C23G 1/08](#)

- • Iron or steel

NOTE

In groups [C23G 1/081](#) - [C23G 1/088](#) an invention is classified in the last appropriate place

[C23G 1/081](#)

- • • {solutions containing H₂SO₄}

[C23G 1/083](#)

- • • {solutions containing H₃PO₄}

[C23G 1/085](#)

- • • {solutions containing HNO₃}

[C23G 1/086](#)

- • • {solutions containing HF}

[C23G 1/088](#)

- • • {solutions containing organic acids}

[C23G 1/10](#)

- • Other heavy metals

[C23G 1/103](#)

- • • {copper or alloys of copper}

[C23G 1/106](#)

- • • {refractory metals}

[C23G 1/12](#)

- • Light metals

[C23G 1/125](#)

- • • {aluminium}

[C23G 1/14](#)

- with alkaline solutions

[C23G 1/16](#)

- • using inhibitors

[C23G 1/18](#)

- • • Organic inhibitors

[C23G 1/19](#)

- • Iron or steel

[C23G 1/20](#)

- • Other heavy metals

[C23G 1/205](#)

- • • {refractory metals}

- C23G 1/22 . . Light metals
- C23G 1/24 . with neutral solutions
- C23G 1/26 . . using inhibitors
- C23G 1/28 . with molten salts
- C23G 1/30 . . using inhibitors
- C23G 1/32 . . Heavy metals
- C23G 1/34 . . Light metals
- C23G 1/36 . Regeneration of waste pickling liquors

C23G 3/00

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

- C23G 3/02 . for cleaning wires, strips, filaments continuously
- C23G 3/021 . . {by dipping}
- C23G 3/022 . . . {the objects following a helicoidal path}
- C23G 3/023 . . {by spraying}
- C23G 3/024 . . {by a combination of dipping and spraying}
- C23G 3/025 . . {Details of the apparatus, e.g. linings or sealing means}
- C23G 3/026 . . . {for guiding the objects}
- C23G 3/027 . . {Associated apparatus, e.g. for pretreating or after-treating}
- C23G 3/028 . . . {for thermal or mechanical pretreatment}
- C23G 3/029 . . . {for removing the pickling fluid from the objects}
- C23G 3/04 . for cleaning pipes

C23G 5/00

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

- C23G 5/02 . using organic solvents
- C23G 5/024 . . containing hydrocarbons
- C23G 5/028 . . containing halogenated hydrocarbons
- C23G 5/02803 . . . {containing fluorine}
- C23G 5/02806 . . . {containing only chlorine as halogen atom}
- C23G 5/02809 . . . {containing chlorine and fluorine}
- C23G 5/02812 {Perhalogenated hydrocarbons}
- C23G 5/02816 {Ethaness}
- C23G 5/02819 {C₂Cl₃F₃}
- C23G 5/02822 {C₂Cl₄F₂}
- C23G 5/02825 {containing hydrogen}
- C23G 5/02829 {Ethaness}
- C23G 5/02832 {C₂H₃Cl₂F}

C23G 5/02835	. . . . . {C ₂ H ₂ Cl ₂ F ₂ }
C23G 5/02838	. . . . . {C ₂ HCl ₂ F ₃ }
C23G 5/02841	. . . . . {Propanes}
C23G 5/02845	. . . . . {C ₃ H ₃ ClF ₄ }
C23G 5/02848	. . . . . {C ₂ H ₂ Cl ₂ F ₄ }
C23G 5/02851	. . . . . {C ₂ HCl ₂ F ₅ }
C23G 5/02854	. . . {characterised by the stabilising or corrosion inhibiting additives}
C23G 5/02858	. . . . {Hydrocarbons}
C23G 5/02861	. . . . {Oxygen-containing compounds}
C23G 5/02864	. . . . . {Alcohols}
C23G 5/02867	. . . . . {aliphatic}
C23G 5/0287	. . . . . {aromatic}
C23G 5/02874	. . . . . {Aldehydes or ketones}
C23G 5/02877	. . . . . {Ethers}
C23G 5/0288	. . . . . {Epoxy compounds}
C23G 5/02883	. . . . {Nitrogen-containing compounds}
C23G 5/02887	. . . . . {Nitro-compounds}
C23G 5/0289	. . . . . {N-heterocyclics}
C23G 5/02893	. . . . {Sulfur-containing compounds}
C23G 5/02896	. . . . {Phosphorus-containing compounds}
C23G 5/032	. . containing oxygen-containing compound
C23G 5/036	. . . having also nitrogen
C23G 5/04	. . Apparatus
C23G 5/06	. using emulsions