

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1395

DATE: FEBRUARY 1, 2023

PROJECT MP11762

**The following classification changes will be effected by this Notice of Changes:**

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>SCHEME:</b>		
Titles Changed:	C23G	Subclass
	C23G	3/00
Warnings Deleted:	C23G	Subclass
<b>DEFINITIONS:</b>		
Definitions Modified:	C23G	Subclass
	C23G	1/00
	C23G	3/00
	C23G	5/00

**No other subclasses/groups are impacted by this Notice of Changes.**

**This Notice of Changes includes the following** *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3.  REVISION CONCORDANCE LIST (RCL)

4.  CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5.  CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

**SUBCLASS C23G - CLEANING OR DEGREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of dots</u> <u>(e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets}**</u>	<u>Transferred</u> <u>to#</u>
M	C23G	Subclass	CLEANING OR DE-GREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS	
M	C23G3/00	0	Apparatus for cleaning or pickling metallic material (with organic solvents C23G5/04)	

\*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- \*\*No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “<administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or <administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalization projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning notice(s)

**SUBCLASS C23G- CLEANING OR DEGREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS**

<b><u>Type*</u></b>	<b><u>Location</u></b>	<b><u>Old Warning notice</u></b>	<b><u>New/Modified Warning</u></b>
D	C23G	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.	<u>Delete</u> : The entire Warning.

\*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

## 2. A. DEFINITIONS (modified)

### C23G

#### Definition statement

Replace: The Definition statement text with the following revised text:

Methods, compositions and apparatus for stripping non-metallic inorganic coatings from metallic substrates.

#### Relationships with other classification places

Replace: The Relationships text with the following revised text:

Particular cleaning of specific articles is not classified in this subclass but in the appropriate places, e.g. [B08B](#), [F23J](#), [F28G](#), [F01D](#), [F02M](#), [F02B](#).

Apparatus specially adapted for cleaning metals is classified in [C23G](#). Cleaning apparatus are classified for example in [B08B](#).

Fouling indicating accumulation of particulates of microorganisms of the surface is classified in [B08B17/00](#).

Methods for etching metallic materials are classified in [C23F](#) and methods for cleaning or pickling metallic material by chemical means (no attack or removal or dissolution of metal) are classified in [C23G](#).

If a composition is used for specific cleaning or polishing a metallic surface, it will be classified in [C23G](#) (cleaning) or [C23F3/00](#) (brightening).

Compositions for polishing and cleaning metallic surfaces are classified in [C09G](#) and in [C23F](#).

Methods and compositions for pickling and brightening metallic surfaces are classified in [C23G](#) and [C23F](#).

Methods and compositions for pickling and passivating metallic surfaces are classified in [C23F](#) and [C23C22/00](#).

Cleaning with azeotropic mixtures is classified in [C11D](#) and receives an additional classification symbol in [C23G](#) for specific examples concerning azeotropic cleaning mixtures for cleaning metals.

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Scale concerning "white rust", "staining", "incrustation", "carbonate, sulphate, sulphide, silicate, oxalate scale" or "hydrocarbon scale" is classified in [C23F14/00](#), [C23F15/00](#).

## References

Delete: The entire Limiting references section.

### *Application-oriented references*

Delete: The following seven rows from the Application-oriented references table:

Devices for guiding or conveying wires, sheet metal bands in loops or curves	<a href="#">B21B 41/00</a>
Devices for surface cleaning	<a href="#">B21B 45/0269</a>
Devices for de-scaling	<a href="#">B21B 45/04</a>
Cleaning prior to soldering, brazing	<a href="#">B23K 1/206</a>
Apparatus for continuously conveying articles into bath	<a href="#">B65G 49/00</a>
Cleaning of semiconductor devices or of parts thereof	<a href="#">H01L 21/02041</a>
Cleaning or polishing of the conductive pattern	<a href="#">H05K 3/26</a>

### *Informative references*

Insert: The following three new rows into the Informative references table:

Polishing compositions in general	<a href="#">C09G</a>
Detergents in general	<a href="#">C11D</a>
Electrolytic pickling, cleaning or de-greasing	<a href="#">C25F</a>

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## Special rules of classification

Replace: The Special rules text with the following revised text:

This subclass (C23G) does not cover methods, compositions and apparatus for treatment of non-metallic material.

Classification of additional information:

Well-disclosed and non-trivial aspects are classified.

Well-known (trivial) aspects or features are not classified.

Subgroups and head groups:

Apparatus is classified in the groups or subgroups for apparatus, if such groups or subgroups exist, if not the apparatus is classified in the head group.

Cleaning or pickling/de-greasing compositions are classified in the specific subgroups according to the intrinsic nature/function of the mixture or composition, e.g. acidic aqueous cleaning or pickling composition (C23G1/02) or alkaline aqueous cleaning or pickling compositions (C23G1/14).

An "application-oriented" invention should be classified in an application-oriented place (when it exists). An "application-oriented" invention is considered as:

- a thing "specially adapted for" a particular use or purpose, e.g. an apparatus modified or particularly constructed for cleaning or pickling pipes (C23G3/04) or for cleaning strips, wires or filaments continuously (C23G1/02);
- a particular use or application of a thing, e.g. acidic cleaning or pickling of copper or alloys thereof (C23G1/103).

If a document concerns embodiments which are covered by several subgroups (e.g. C23G1/061 - C23G1/068) dependent on a higher hierarchy group (head group, e.g. C23G1/06), the following rules apply:

- the specific technical information relevant for some of the subgroups is classified as invention in all said subgroups;
- if relevant, the combination of the elements covered by the subgroups is classified as invention in the head group;
- if generic technical information common to all of the subgroups is disclosed and only schematic embodiments of the specific subgroup embodiments are represented, the document is classified as invention in the head group.

For example:

If a document discloses an acidic cleaning or pickling composition comprising nitrogen-containing compounds and sulfur-containing compounds as organic

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inhibitors, and the specific technical information is relevant for both organic inhibitors, then it is classified in both subgroups [C23G1/061](#) and [C23G1/065](#).

## Glossary of terms

Delete: The text “, e.g. US2007023943, EP0434622.” in the second row of the Glossary of terms table and insert a period so that the row reads as follows:

Pickling of metallic material	Chemical removal or dissolution of surface deposits of inorganic contaminants, such as rust (iron oxides), or scale from ferrous metals, copper or aluminium alloys, or corrosion products from metallic surfaces. Chemical stripping of non-metallic inorganic coatings from metallic substrates.
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## Synonyms and Keywords

Replace: The existing Synonyms and Keywords section with revised text and table so that the section appears as follows:

*In patent documents, the following words/expressions are often used as synonyms:*

- "pickling", "stripping", "deoxidizing", "cleaning", "derusting", "descaling", "defouling", "detarnishing" and "oxides removal"
- "de-greasing", "cleaning", "deoil", "defating", and "decontaminating"

*In patent documents, the following words/expressions are often used with the meaning indicated:*

etching	pickling
fouling	rusting
scale	rust or scale from ferrous metals, copper or aluminium alloys or rust staining

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**C23G 1/00****Definition statement**

Delete: The second and third paragraphs of text so that the Definition statement reads as follows:

Methods and compositions for cleaning or pickling metallic material by chemical means, e.g. with acidic, alkaline, neutral solutions or with molten salts.

**References****Limiting references**

Delete: The following three rows from the Limiting references table:

Apparatus for cleaning or pickling metallic material	C23G 3/00
Cleaning or de-greasing of metallic material by other non-mechanical means	C23G 5/00
Cleaning or de-greasing of metallic material with emulsions	C23G 5/06

**Special rules of classification**

Replace: The existing Special rules text with the following revised text:

Multi-step processes for cleaning or pickling metallic material with solutions or molten salts, e.g. a two-step pickling method comprising a first treatment step with an alkaline solution and a second treatment step with an acidic solution, are classified in C23G1/00.

[C23G 1/04](#) relates to the cleaning or pickling metallic material with acidic solutions comprising inhibitors, e.g. inorganic inhibitors or a mixture of inorganic and organic inhibitors.

[C23G 1/06](#) relates to the cleaning or pickling metallic material with acidic solutions comprising only organic inhibitors.

In the range [C23G 1/08](#) - [C23G 1/088](#) the cleaning or pickling of iron or steel with acidic compositions are classified in the last appropriate place (last place rule).

[C23G 1/16](#) relates to the cleaning or pickling of metallic material with alkaline solutions comprising inhibitors, e.g. inorganic inhibitors or a mixture of inorganic and organic inhibitors.



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**C23G 1/18** relates to the cleaning or pickling of metallic material with alkaline solutions comprising only organic inhibitors.

**C23G 1/26** relates to the cleaning or pickling of metallic material with neutral solutions comprising inhibitors, e.g. inorganic inhibitors or a mixture of inorganic and organic inhibitors.

**C23G 1/30** relates to the cleaning or pickling of metallic material with molten salts comprising inhibitors, e.g. inorganic inhibitors or a mixture of inorganic and organic inhibitors. Only organic inhibitors are almost impossible, because they will be destroyed by the presence of molten salts. If needed this group is only used in combination with the subgroups **C23G 1/32** or **C23G 1/34**.

## **C23G 3/00**

### **Definition statement**

Replace: The existing Definition statement text with the following revised text:

Apparatus for cleaning or pickling metallic material such as pieces, wafers, or articles by chemical means, e.g. with acidic, alkaline, neutral solutions or with molten salts.

### **References**

#### **Limiting references**

Delete: The following two rows from the Limiting references table:

Other apparatus for non-mechanical cleaning or de-greasing metallic material	<b>C23G 5/00</b>
Apparatus for cleaning or de-greasing metallic material with emulsions	<b>C23G 5/06</b>

#### **Informative references**

Replace: The comma after “electricity” with “or” so that the below table row reads as follows:

Cleaning with additional treatment of the liquid or of the object being cleaned, e.g. by heat, vibration, electricity or by using propellers, etc.	<b>B08B 3/10,</b> <b>B08B 3/102</b>
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### Special rules of classification

Replace: The Special rules text with the following revised text:

**C23G 3/02** relates to apparatus for cleaning or pickling metallic wires, strips or filaments continuously with acidic, alkaline, neutral solutions or molten salts.

**C23G 3/027** relates to associated apparatus for pretreating or after-treating metallic wires, strips or filaments continuously with solutions or molten salts.

**C23G 3/04** relates to apparatus for cleaning or pickling pipes with acidic, alkaline, neutral solutions or molten salts.

### Glossary of terms

Replace: Both columns of Glossary of terms table with the following revised text:

Pickling wires, strips or filaments continuously	pickling coiled wires, strips or filaments or pickling metallic material of continuous length, but not wafers, pieces or articles.
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### C23G 5/00

#### Definition statement

Replace: The existing Definition statement text with the following revised text:

Other methods, compositions and apparatus for non-mechanical cleaning or degreasing metallic material, e.g. by using gases, ion beams, plasma, freezing or cooling, supercritical fluids, melts (applying a coating which is a fondant for another coating), ultrasonics, by removing liquid contaminants by suction, by using reactive solids, followed by heating, two-phase cleaning mixtures, e.g. air under pressure in combination with an aqueous solution.

#### References

Delete: The entire Limiting references section.

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### Special rules of classification

Replace: The existing Special rules text with the following revised text:

[C23G 5/00](#) relates to other methods, compositions and apparatuses for non-mechanical cleaning or de-greasing metallic material, e.g. by using:

- gases such as a halogenous gas mixture, a fluoride ion cleaning, a carbon dioxide cleaning;
- ion beams;
- plasma;
- freezing or cooling;
- supercritical fluids;
- melts (by applying a coating which is a fondant for another coating);
- ultrasonics;
- by removing liquid contaminants by suction;
- by using reactive solids followed by heating; or
- by using two-phase cleaning mixtures, e.g. air under pressure in combination with an aqueous solution;
- but not only by using a solution.

In subgroups [C23G 5/02](#) - [C23G 5/036](#), cleaning with organic solvents, in the absence of an indication to the contrary, classification is made in the last appropriate place (last place rule).

In subgroups [C23G 5/02](#) - [C23G 5/036](#), the mixtures of organic solvents are classified according to the major component in the mixture.

The subgroup [C23G 5/02854](#) relates to cleaning or de-greasing metallic material with organic solvents containing halogenated hydrocarbons characterised by the stabilising or corrosion inhibiting additive. The corrosion inhibiting additive is classified with the subgroups [C23G 5/02858](#) - [C23G 5/02896](#).

[C23G 5/04](#) relates to apparatuses for cleaning or de-greasing metallic material with organic solvents.

[C23G 5/06](#) relates to apparatus for cleaning or de-greasing metallic material with emulsions, e.g. aqueous emulsions.

In the subgroups of [C23G 5/00](#) only specific examples of the use of azeotropic cleaning mixtures for cleaning metals are classified. For example, cleaning using azeotropic mixture of dichloro-pentafluoropropane and 1,1-dichloroethane is classified in [C11D 7/5059](#), [C11D 7/5081](#) and also in [C23G 5/02851](#).

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**Synonyms and Keywords**

Replace: The existing preamble with the following new preamble:

*In patent documents, the following words/expressions are often used with the meaning indicated:*