

## Compilation of Changes to the CPC Scheme Between 2022.05 and 2022.08

### Presentation Details

- Entries for new symbols and headings: *Black text in italics*
- Entries for existing symbols and headings
- text insertions: *Green text in italics with yellow background*
  - text deletions: ~~Red strikethrough text with grey background~~
- Entries for deleted symbols and headings: ~~Black strikethrough text~~
- In cases when the originating project cannot be found, "N/A" is given for the Project information (e.g. the change could be due to an Editorial Correction).
  - Projects ending in "-F" indicate finalisation after reclassification was completed.

### Project: N/A (A23)

A23

#### FOODS OR FOODSTUFFS; TREATMENT THEREOF, NOT COVERED BY OTHER CLASSES

##### NOTE

Attention is drawn to the following places:

- [C08B](#) Polysaccharides, derivatives thereof
- [C11](#) Animal or vegetable oils, fats, fatty substances or waxes
- [C12](#) Biochemistry, beer, spirits, wine, vinegar
- [C13](#) Sugar industry

### Project: RP10455 (A47B)

M A47B 97/00

~~Miscellaneous furniture; Miscellaneous Furniture~~ or accessories for furniture, *not provided for in other groups of this subclass*

### Project: RP10461 (A47D)

U A47D

FURNITURE SPECIALLY ADAPTED FOR CHILDREN (school benches or desks [A47B 39/00](#), [A47B 41/00](#))

##### 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.

M A47D 1/00

Children's chairs (chairs generally [A47C](#); *vehicle seats for children B60N 2/26*)

M A47D 1/008

- {with trays (~~combinations of chairs and tables A47B 83/02~~; children's chairs combined with tables [A47D 3/00](#))}

M A47D 1/02

- Foldable chairs {(foldable rocking-chairs ~~A47D 13/10~~ [A47D 13/101](#))}

M A47D 1/10

- capable of being suspended from, or attached to, tables or other articles (~~vehicle seats for children B60N 2/26~~)

U A47D 7/00

Children's beds (beds in general [A47C](#))

C A47D 7/005

- {dismountable}

##### WARNING

*Group A47D 7/005 is impacted by reclassification into group A47D 9/008. Groups A47D 7/005 and A47D 9/008 should be considered in order to perform a complete search.*

U A47D 7/007

- {combined with other nursery furniture, e.g. chests of drawers}

- C A47D 7/01
- with adjustable parts, e.g. for adapting the length to the growth of the children
- WARNING**  
Group [A47D 7/01](#) is impacted by reclassification into group [A47D 9/012](#). Groups [A47D 7/01](#) and [A47D 9/012](#) should be considered in order to perform a complete search.
- C A47D 7/02
- with side wall that can be lowered
- WARNING**  
Group [A47D 7/02](#) is impacted by reclassification into group [A47D 9/012](#). Groups [A47D 7/02](#) and [A47D 9/012](#) should be considered in order to perform a complete search.
- C A47D 7/03
- with adjustably-mounted mattresses
- WARNING**  
Group [A47D 7/03](#) is impacted by reclassification into group [A47D 9/012](#). Groups [A47D 7/03](#) and [A47D 9/012](#) should be considered in order to perform a complete search.
- C A47D 7/04
- capable of being suspended from, or attached to, window frames or other articles
- WARNING**  
Group [A47D 7/04](#) is impacted by reclassification into group [A47D 9/016](#). Groups [A47D 7/04](#) and [A47D 9/016](#) should be considered in order to perform a complete search.
- C A47D 9/00
- {Small beds for newborns or infants, e.g. bassinets or} cradles Cradles {; Bassinets}**
- WARNING**  
Group [A47D 9/00](#) is impacted by reclassification into groups [A47D 9/008](#), [A47D 9/012](#), [A47D 9/016](#) and [A47D 9/053](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C A47D 9/005
- {foldable}
- WARNING**  
Group [A47D 9/005](#) is impacted by reclassification into groups [A47D 9/008](#), [A47D 9/012](#) and [A47D 9/016](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N A47D 9/008
- {dismountable}
- WARNING**  
Group [A47D 9/008](#) is incomplete pending reclassification of documents from groups [A47D 7/005](#), [A47D 9/00](#), [A47D 9/005](#), [A47D 9/02](#) and [A47D 9/04](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N A47D 9/012
- {with adjustable parts}
- WARNING**  
Group [A47D 9/012](#) is incomplete pending reclassification of documents from groups [A47D 7/01](#), [A47D 7/02](#), [A47D 7/03](#), [A47D 9/00](#), [A47D 9/005](#), [A47D 9/02](#) and [A47D 9/04](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N A47D 9/016
- {capable of being suspended from, or attached to, other articles or structures, e.g. adult's bed}
- WARNING  
Group [A47D 9/016](#) is incomplete pending reclassification of documents from groups [A47D 7/04](#), [A47D 9/00](#), [A47D 9/005](#), [A47D 9/02](#) and [A47D 9/04](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C A47D 9/02
- with rocking mechanisms (devices for moving perambulators to and from [B62B 9/22](#))
- WARNING  
Group [A47D 9/02](#) is impacted by reclassification into groups [A47D 9/008](#), [A47D 9/012](#), [A47D 9/016](#), [A47D 9/053](#) and [A47D 9/057](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C A47D 9/04
- with disconnectable rockers
- WARNING  
Group [A47D 9/04](#) is impacted by reclassification into groups [A47D 9/008](#), [A47D 9/012](#), [A47D 9/016](#), [A47D 9/053](#) and [A47D 9/057](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N A47D 9/053
- {with curved rocking member}
- WARNING  
Group [A47D 9/053](#) is incomplete pending reclassification of documents from groups [A47D 9/00](#), [A47D 9/02](#) and [A47D 9/04](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N A47D 9/057
- {driven by electric motors}
- WARNING  
Group [A47D 9/057](#) is incomplete pending reclassification of documents from groups [A47D 9/02](#) and [A47D 9/04](#). Groups [A47D 9/02](#), [A47D 9/04](#) and [A47D 9/057](#) should be considered in order to perform a complete search.
- M A47D 11/00
- Children's furniture convertible into other kinds of furniture, e.g. children's chairs or benches convertible into beds {or **constructional play-furniture**} (convertible furniture in general [A47B 85/00](#)); ~~{Constructional play-furniture} (convertible furniture in general [A47B 85/00](#))~~**
- U A47D 13/00
- Other nursery furniture (auxiliary or portable toilet seats for children [A47K 13/06](#))**
- C A47D 13/02
- Baby-carriers; Carry-cots
- WARNING  
Group [A47D 13/02](#) is impacted by reclassification into groups [A47D 13/027](#) and [A47D 13/029](#). Groups [A47D 13/02](#), [A47D 13/027](#) and [A47D 13/029](#) should be considered in order to perform a complete search.
- C A47D 13/025
- {for carrying children in seated position}
- WARNING  
Group [A47D 13/025](#) is impacted by reclassification into groups [A47D 13/027](#) and [A47D 13/029](#).

*Groups A47D 13/025, A47D 13/027 and A47D 13/029 should be considered in order to perform a complete search.*

- N A47D 13/027
- {Baby-carriers with rigid frames}
- WARNING  
Group [A47D 13/027](#) is incomplete pending reclassification of documents from groups [A47D 13/02](#) and [A47D 13/025](#).  
Groups [A47D 13/02](#), [A47D 13/025](#) and [A47D 13/027](#) should be considered in order to perform a complete search.
- N A47D 13/029
- {Baby-carriers with waist-belt only}
- WARNING  
Group [A47D 13/029](#) is incomplete pending reclassification of documents from groups [A47D 13/02](#) and [A47D 13/025](#).  
Groups [A47D 13/02](#), [A47D 13/025](#) and [A47D 13/029](#) should be considered in order to perform a complete search.
- C A47D 13/04
- Apparatus for helping babies to walk; Baby walkers ~~or strollers~~ (~~walking aids for the sick~~ [A61H 3/04](#) ~~wheeled walking aids for patients or disabled persons~~ [A61H 3/04](#))
- WARNING  
Group [A47D 13/04](#) is impacted by reclassification into group [A47D 13/043](#).  
Groups [A47D 13/04](#) and [A47D 13/043](#) should be considered in order to perform a complete search.
- T A47D 13/043
- {~~Chairs for walking~~ [Baby walkers with a seat](#)}
- WARNING  
Group [A47D 13/043](#) is incomplete pending reclassification of documents from group [A47D 13/04](#).  
Groups [A47D 13/04](#) and [A47D 13/043](#) should be considered in order to perform a complete search.
- M A47D 13/046
- {Harnesses for helping babies to walk (~~safety harnesses for already walking children~~ [A47D 13/086](#))}
- M A47D 13/08
- Devices for use in guiding or supporting children, e.g. safety ~~harness~~ {, ~~feeding cushions~~ ~~harnesses~~ (~~harnesses for helping babies to walk~~ [A47D 13/046](#); ~~restraining devices in chairs~~ [A47D 15/006](#); ~~restraining devices in beds~~; ~~playpens or cradles~~ [A47D 15/008](#))}
- C A47D 13/10
- Rocking-chairs (in general [A47C 3/02](#); rocking horses [A63G 15/00](#)); ~~{Indoor} swings (in general [A63G 9/00](#))~~ {; {Baby bouncers}
- WARNING  
Group [A47D 13/10](#) is impacted by reclassification into group [A47D 13/101](#).  
Groups [A47D 13/10](#) and [A47D 13/101](#) should be considered in order to perform a complete search.
- N A47D 13/101
- {Foldable rocking chairs}
- WARNING  
Group [A47D 13/101](#) is incomplete pending reclassification of documents from groups [A47D 13/10](#), [A47D 13/102](#), [A47D 13/105](#) and [A47D 13/107](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C A47D 13/102
- {with curved rocking members resting on the ground}
- WARNING  
Group [A47D 13/102](#) is impacted by reclassification into group [A47D 13/101](#).

*Groups A47D 13/102 and A47D 13/101 should be considered in order to perform a complete search.*

- C A47D 13/105
- {pivotally mounted in a frame}

**WARNING**

*Group A47D 13/105 is impacted by reclassification into group A47D 13/101. Groups A47D 13/105 and A47D 13/101 should be considered in order to perform a complete search.*

- C A47D 13/107
- {resiliently suspended or supported, e.g. baby bouncers}

**WARNING**

*Group A47D 13/107 is impacted by reclassification into group A47D 13/101. Groups A47D 13/107 and A47D 13/101 should be considered in order to perform a complete search.*

**Project: RP10455 (A47G)**

- M A47G 29/00
- Miscellaneous supports** Supports, holders, or containers for household use, **not provided for in groups A47G 1/00-A47G 27/00 or A47G 33/00 (for fastening kitchen utensils A47J 45/00; for drying towels A47K 10/04; stands, racks, or the like for airing beds, garments, or the like, clothes, drying devices D06F 57/00)**

**Project: RP10455 (A47L)**

- M A47L 25/00
- Miscellaneous cleaning devices** Domestic cleaning devices not provided for in other groups of this subclass (for cleaning spectacles G02C 13/00)

**Project: MP10335 (A61B)**

- U A61B 17/00
- Surgical instruments, devices or methods, e.g. tourniquets (A61B 18/00 takes precedence; contraceptive devices, pessaries, or applicators therefor A61F 6/00; eye surgery A61F 9/007; ear surgery A61F 11/00)
- U A61B 17/12
- for ligaturing or otherwise compressing tubular parts of the body, e.g. blood vessels, umbilical cord (specially adapted for vas deferens or fallopian tubes A61F 6/20; materials for ligaturing blood vessels A61L 17/00)
- M A61B 17/132
- • Tourniquets {(sphygmometers A61B 5/02 sphygmomanometer A61B 5/022)}
- M A61B 17/42
- Gynaecological or obstetrical instruments or methods {(ligaturing clamps or clips for the umbilical cord A61B 17/122; curettage A61B 17/3207} A61B 17/320708; dilators A61M 29/00)}
- M A61B 17/425
- • for reproduction or fertilisation {(specially adapted for use with animals A61D 19/00)}

**Project: RP10455 (A61M)**

- M A61M
- DEVICES FOR INTRODUCING MEDIA INTO, OR ONTO, THE BODY** (introducing media into or onto the bodies of animals A61D 7/00; means for inserting tampons A61F 13/26; devices for administering food or medicines orally A61J; containers for collecting, storing or administering blood or medical fluids A61J 1/05); **DEVICES FOR TRANSDUCING BODY MEDIA OR FOR TAKING MEDIA FROM THE BODY** (surgery A61B; chemical aspects of surgical articles A61L); **DEVICES FOR PRODUCING OR ENDING SLEEP OR STUPOR** {(Electrotherapy, e.g. producing anaesthesia by the use of alternating or intermittent currents A61N 1/36021)}

**NOTES**

1. This subclass covers suction, pumping or atomising devices for medical use (e.g. cups, breast relievers, irrigators, sprays, powder insufflators, atomisers,

inhalers), apparatus for general or local anaesthetics, devices or methods for causing a change in the state of consciousness, catheters, dilators, apparatus for introducing medicines into the body other than orally

2. Void

3. When classifying in this group, classification is also made in group [B01D 15/08](#) insofar as subject matter of general interest relating to chromatography is concerned

#### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">A61M 1/18</a>	covered by	<a href="#">B01D 63/02</a> , <a href="#">B01D 63/04</a>
<a href="#">A61M 1/20</a>	covered by	<a href="#">B01D 63/06</a>
<a href="#">A61M 1/22</a>	covered by	<a href="#">B01D 63/08</a>
<a href="#">A61M 1/24</a>	covered by	<a href="#">B01D 63/10</a>
<a href="#">A61M 3/04</a>	covered by	<a href="#">A61M 3/02</a>
<a href="#">A61M 5/175</a>	covered by	<a href="#">A61M 5/168</a>
<a href="#">A61M 5/303</a>	covered by	<a href="#">A61M 5/30</a>
<a href="#">A61M 5/307</a>	covered by	<a href="#">A61M 5/30</a>
<a href="#">A61M 25/08</a>	covered by	<a href="#">A61M 25/0105</a>
<a href="#">A61M 25/082</a>	covered by	<a href="#">A61M 25/0116</a>
<a href="#">A61M 25/085</a>	covered by	<a href="#">A61M 25/0122</a>
<a href="#">A61M 25/088</a>	covered by	<a href="#">A61M 25/01</a>
<a href="#">A61M 25/092</a>	covered by	<a href="#">A61M 25/0133</a>
<a href="#">A61M 25/095</a>	covered by	<a href="#">A61M 25/01</a> , <a href="#">A61B 5/00</a> , <a href="#">A61N 1/056</a>
<a href="#">A61M 25/098</a>	covered by	<a href="#">A61M 25/0108</a>
<a href="#">A61M 25/12</a>	covered by	<a href="#">A61M 25/10</a> , <a href="#">A61M 29/02</a>
<a href="#">A61M 25/14</a>	covered by	<a href="#">A61M 25/0021</a>
<a href="#">A61M 25/16</a>	covered by	<a href="#">A61M 25/0009</a>
<a href="#">A61M 25/18</a>	covered by	<a href="#">A61M 25/0014</a>
<a href="#">A61M 29/04</a>	covered by	<a href="#">A61M 29/02</a>
<a href="#">A61M 36/00</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>
<a href="#">A61M 36/02</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>
<a href="#">A61M 36/04</a>	<i>covered by</i>	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>
<a href="#">A61M 36/06</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a> , <a href="#">A61M 15/02</a>
<a href="#">A61M 36/08</a>	covered by	<a href="#">A61M 5/1785</a>
<a href="#">A61M 36/10</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>
<a href="#">A61M 36/12</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>
<a href="#">A61M 36/14</a>	covered by	<a href="#">A61M 37/0069</a> , <a href="#">A61N 5/10</a>

2. 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 A61M 60/00**

**Blood pumps; Devices for mechanical circulatory actuation; Balloon pumps for circulatory assistance (heart stimulation [A61H 31/00](#); heart stimulators for electrotherapy [A61N 1/362](#))**

#### NOTE

In this main group, it is obligatory to classify all aspects of location, type, medical purpose, driving details, control details, and constructional details other than driving details that are represented in groups [A61M 60/10](#), [A61M 60/20](#),



[A61M 60/30](#), [A61M 60/40](#), [A61M 60/50](#) and [A61M 60/80](#). This obligation extends to information that would normally only be considered as additional information.

**WARNING**

Group [A61M 60/00](#) is impacted by reclassification into groups [A61M 60/10](#) - [A61M 60/90](#).

All groups listed in this Warning should be considered in order to perform a complete search.

U A61M 60/90

- Details not provided for in groups [A61M 60/40](#), [A61M 60/50](#) or [A61M 60/80](#)

**WARNING**

Group [A61M 60/90](#) is incomplete pending reclassification of documents from group [A61M 60/00](#)

Groups [A61M 60/00](#) and [A61M 60/90](#) should be considered in order to perform a complete search.

**N A61M 99/00**

***Subject matter not provided for in other groups of this subclass***

**Project: RP10459 (A63B)**

**M A63B**

**APPARATUS FOR PHYSICAL TRAINING, GYMNASTICS, SWIMMING, CLIMBING, OR FENCING; BALL GAMES; TRAINING EQUIPMENT (apparatus for passive exercising, massage [A61H](#))**

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">A63B 7/06</a>	covered by	<a href="#">A63G 1/00</a>
<a href="#">A63B 22/08</a>	covered by	<a href="#">A63B 22/0605</a>
<a href="#">A63B 22/10</a>	covered by	<a href="#">A63B 22/0605</a> , <a href="#">A63B 22/0002</a>
<a href="#">A63B 22/12</a>	covered by	<a href="#">A63B 22/0605</a> , <a href="#">A63B 22/001</a>
<a href="#">A63B 29/04</a>	covered by	<a href="#">A63B 29/00</a>
<a href="#">A63B 31/16</a>	covered by	<a href="#">A63B 31/14</a> - <a href="#">A63B 31/18</a>
<a href="#">A63B 63/02</a>	covered by	<a href="#">A63B 63/00</a>
<a href="#">A63B 63/04</a>	covered by	<a href="#">A63B 63/00</a>
<del><a href="#">A63B 69/22</a></del>	<del>covered by</del>	<del><a href="#">A63B 69/20</a></del>
<del><a href="#">A63B 69/28</a></del>	<del>covered by</del>	<del><a href="#">A63B 69/20</a></del>
<del><a href="#">A63B 69/30</a></del>	<del>covered by</del>	<del><a href="#">A63B 69/20</a></del>
<a href="#">A63B 71/16</a>	covered by	<a href="#">A63B 71/14</a> - <a href="#">A63B 71/148</a>

2. 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 A63B 23/00**

**Exercising apparatus specially adapted for particular parts of the body ([A63B 22/00](#) takes precedence; force-resisting aspects [A63B 21/00](#); electric or electronic controls therefor [A63B 24/00](#); devices for exercising or strengthening of fingers, or arms in teaching operation of keyboards [G09B 15/06](#))**

U A63B 23/035

- for limbs, i.e. upper or lower limbs, e.g. simultaneously

U A63B 23/04

- • for lower limbs {(training appliances for special sports [A63B 69/00](#); for the purpose of producing mechanical power [F03G 5/00](#))}

U A63B 23/0405

- • • {involving a bending of the knee and hip joints simultaneously ([A63B 23/0476](#) takes precedence)}

M A63B 23/047

- • • • {Walking and pulling or pushing a load (for exercising the player ability for rugby or American football ~~[A63B 69/345](#)~~[A63B 69/34](#))}

**Project: RP0127-F (A63B)**

- U A63B 33/00** **Swimming equipment attachable to the head, e.g. swim caps or goggles (diving masks [B63C 11/12](#); breathing aids, e.g. snorkels, [B63C 11/18](#))**
- M A63B 33/002
- {Swimming goggles}
- WARNING**  
Group A63B 33/002 is impacted by reclassification into groups ~~A63B 33/004, A63B 33/006, and A63B 33/008.~~  
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 33/004
- • {comprising two separate lenses joined by a flexible bridge}
- WARNING**  
Group A63B 33/004 is incomplete pending reclassification of documents from group A63B 33/002.  
Groups A63B 33/002 and A63B 33/004 should be considered in order to perform a complete search.
- M A63B 33/006
- • {with means allowing adjustment of the bridge}
- WARNING**  
Group A63B 33/006 is incomplete pending reclassification of documents from group A63B 33/002.  
Groups A63B 33/002 and A63B 33/006 should be considered in order to perform a complete search.
- M A63B 33/008
- • • {with stepless adjustment}
- WARNING**  
Group A63B 33/008 is incomplete pending reclassification of documents from group A63B 33/002.  
Groups A63B 33/002 and A63B 33/008 should be considered in order to perform a complete search.
- U A63B 37/00** **Solid balls;{Rigid hollow balls; } Marbles (heavy throwing balls [A63B 65/06](#))**
- U A63B 37/0003
- {Golf balls}
- M A63B 37/0004
- • {Surface depressions or protrusions}
- WARNING**  
Group A63B 37/0004 is impacted by reclassification into group A63B 37/00215.  
Groups A63B 37/0004 and A63B 37/00215 should be considered in order to perform a complete search.
- M A63B 37/0006
- • • {Arrangement or layout of dimples}
- WARNING**  
Group A63B 37/0006 is impacted by reclassification into group A63B 37/00065.  
Groups ~~A63B 37/0006 and A63B 37/00065~~ should be considered in order to perform a complete search.
- M A63B 37/00065
- • • • {located around the pole or the equator}
- WARNING**  
Group A63B 37/00065 is incomplete pending reclassification of documents from group A63B 37/0006.  
Groups A63B 37/0006 and A63B 37/00065 should be considered in order to perform a complete search.



- M A63B 37/0021
- • • {Occupation ratio, i.e. percentage surface occupied by dimples}
- WARNING  
Group A63B 37/0021 is impacted by reclassification into group A63B 37/00215.  
Groups A63B 37/0021 and A63B 37/00215 should be considered in order to perform a complete search.
- M A63B 37/00215
- • • {Volume ratio}
- WARNING  
Group A63B 37/00215 is incomplete pending reclassification of documents from groups A63B 37/0004 and A63B 37/0021.  
Groups A63B 37/0004, A63B 37/0021, and A63B 37/00215 should be considered in order to perform a complete search.
- M A63B 37/0022
- • • {Coatings, e.g. paint films; Markings}
- WARNING  
Group A63B 37/0022 is impacted by reclassification into groups A63B 37/00221, A63B 37/00222, and A63B 37/00223.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 37/00221
- • • {characterised by the material}
- WARNING  
Group A63B 37/00221 is incomplete pending reclassification of documents from group A63B 37/0022.  
Groups A63B 37/0022 and A63B 37/00221 should be considered in order to perform a complete search.
- M A63B 37/00222
- • • {Physical properties, e.g. hardness}
- WARNING  
Group A63B 37/00222 is incomplete pending reclassification of documents from group A63B 37/0022.  
Groups A63B 37/0022 and A63B 37/00222 should be considered in order to perform a complete search.
- M A63B 37/00223
- • • {Colour tone}
- WARNING  
Group A63B 37/00223 is incomplete pending reclassification of documents from group A63B 37/0022.  
Groups A63B 37/0022 and A63B 37/00223 should be considered in order to perform a complete search.
- M A63B 37/0023
- • • {Covers}
- WARNING  
Group A63B 37/0023 is impacted by reclassification into groups A63B 37/00373 and A63B 37/00376.  
Groups A63B 37/0023, A63B 37/00373, and A63B 37/00376 should be considered in order to perform a complete search.
- M A63B 37/00373
- • • {Colour tone}
- WARNING  
Group A63B 37/00373 is incomplete pending reclassification of documents from group A63B 37/0023.

Groups A63B 37/0023 and A63B 37/00373 should be considered in order to perform a complete search.

M A63B 37/00376 . . . {Transparency or semitransparency}

WARNING

Group A63B 37/00376 is incomplete pending reclassification of documents from group A63B 37/0023.

Groups A63B 37/0023 and A63B 37/00376 should be considered in order to perform a complete search.

M A63B 37/0038 . {Intermediate layers, e.g. inner cover, outer core, mantle}

WARNING

Group A63B 37/0038 is impacted by reclassification into group A63B 37/00495.

Groups A63B 37/0038 and A63B 37/00495 should be considered in order to perform a complete search.

M A63B 37/00495 . . {Colour tone}

WARNING

Group A63B 37/00495 is incomplete pending reclassification of documents from group A63B 37/0038.

Groups A63B 37/0038 and A63B 37/00495 should be considered in order to perform a complete search.

M A63B 37/005 . {Cores}

WARNING

Group A63B 37/005 is impacted by reclassification into group A63B 37/00691.

Groups A63B 37/005 and A63B 37/00691 should be considered in order to perform a complete search.

U A63B 37/006 . . {Physical properties}

M A63B 37/0062 . . . {Hardness}

WARNING

Group A63B 37/0062 is impacted by reclassification into groups A63B 37/00621 and A63B 37/00622.

Groups A63B 37/0062, A63B 37/00621, and A63B 37/00622 should be considered in order to perform a complete search.

M A63B 37/00621 . . . {Centre hardness}

WARNING

Group A63B 37/00621 is incomplete pending reclassification of documents from group A63B 37/0062.

Groups A63B 37/0062 and A63B 37/00621 should be considered in order to perform a complete search.

M A63B 37/00622 . . . {Surface hardness}

WARNING

Group A63B 37/00622 is incomplete pending reclassification of documents from group A63B 37/0062.

Groups A63B 37/0062 and A63B 37/00622 should be considered in order to perform a complete search.

- M A63B 37/00691      • • • {Colour tone}
- WARNING  
Group A63B 37/00691 is incomplete pending reclassification of documents from group A63B 37/005.  
Groups A63B 37/005 and A63B 37/00691 should be considered in order to perform a complete search.
- U A63B 37/007      • • {Characteristics of the ball as a whole}
- M A63B 37/0077      • • • {Physical properties}
- WARNING  
Group A63B 37/0077 is impacted by reclassification into groups A63B 37/00773 and A63B 37/00776.  
Groups A63B 37/0077, A63B 37/00773, and A63B 37/00776 should be considered in order to perform a complete search.
- M A63B 37/00773      • • • • {Moment of inertia}
- WARNING  
Group A63B 37/00773 is incomplete pending reclassification of documents from group A63B 37/0077.  
Groups A63B 37/0077 and A63B 37/00773 should be considered in order to perform a complete search.
- M A63B 37/00776      • • • • {Slab hardness}
- WARNING  
Group A63B 37/00776 is incomplete pending reclassification of documents from group A63B 37/0077.  
Groups A63B 37/0077 and A63B 37/00776 should be considered in order to perform a complete search.
- M A63B 37/0092      • • • • {Hardness distribution amongst different ball layers}
- WARNING  
Group A63B 37/0092 is impacted by reclassification into groups A63B 37/00921 and A63B 37/00922.  
Groups A63B 37/0092, A63B 37/00921, and A63B 37/00922 should be considered in order to perform a complete search.
- M A63B 37/00921      • • • • • {whereby hardness of the cover is higher than hardness of the intermediate layers}
- WARNING  
Group A63B 37/00921 is incomplete pending reclassification of documents from group A63B 37/0092.  
Groups A63B 37/0092 and A63B 37/00921 should be considered in order to perform a complete search.
- M A63B 37/00922      • • • • • {whereby hardness of the cover is lower than hardness of the intermediate layers}
- WARNING  
Group A63B 37/00922 is incomplete pending reclassification of documents from group A63B 37/0092.  
Groups A63B 37/0092 and A63B 37/00922 should be considered in order to perform a complete search.

**M A63B 41/00****Hollow inflatable balls****WARNING**

Group A63B 41/00 is impacted by reclassification into group A63B 41/125. Groups A63B 41/00 and A63B 41/125 should be considered in order to perform a complete search.

**M A63B 41/125**

- {Large inflatable balls primarily used as body supports for exercising, e.g. balancing}

**WARNING**

Group A63B 41/125 is incomplete pending reclassification of documents from group A63B 41/00. Groups A63B 41/00 and A63B 41/125 should be considered in order to perform a complete search.

**Project: RP10459 (A63B)****U A63B 69/00****Training appliances or apparatus for special sports (training of parachutists [B64D 23/00](#))****M A63B 69/002**

- {for football (American-football dummies [A63B 69/345](#) [A63B 69/34](#))}

**F A63B 69/004  
(Frozen)**

- {for the martial arts, e.g. karate, judo ([A63B 69/20](#), [A63B 69/34](#) take precedence)}

**WARNING**

Group [A63B 69/004](#) is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups [A63B 69/20](#), [A63B 69/215](#), [A63B 69/22](#), [A63B 69/222](#), [A63B 69/224](#), [A63B 69/24](#), [A63B 69/244](#), [A63B 69/26](#), [A63B 69/28](#), [A63B 69/30](#), [A63B 69/305](#), [A63B 69/32](#), [A63B 69/322](#), [A63B 69/34](#), [A63B 2244/10](#), [A63B 2244/102](#), [A63B 2244/104](#), [A63B 2244/106](#) and [A63B 2244/108](#). All groups listed in this Warning should be considered in order to perform a complete search.

**D A63B 2069/0042**

- {Breaking boards or holders therefore, i.e. devices for destroying exercises}<br><administratively transferred to [A63B 69/331](#)>

**D A63B 2069/0044**

- {Fake or disarmed practise weapons, i.e. for mimicking combat situations}<br><administratively transferred to [A63B 69/333](#)>

**Project: RP0127-F (A63B)****M A63B 69/0053**

- {Apparatus generating random stimulus signals for reaction-time training involving a substantial physical effort}

**WARNING**

Group A63B 69/0053 is impacted by reclassification into group A63B 69/0055. Groups A63B 69/0053 and A63B 69/0055 should be considered in order to perform a complete search.

**M A63B 69/0055**

- {with means for distracting the user, e.g. visual or audio means}

**WARNING**

Group A63B 69/0055 is incomplete pending reclassification of documents from group A63B 69/0053. Groups A63B 69/0053 and A63B 69/0055 should be considered in order to perform a complete search.

- M A63B 69/0057
- {Means for physically limiting movements of body parts ([A63B 23/0211](#) takes precedence)}
- WARNING**  
Group A63B 69/0057 is impacted by reclassification into group A63B 69/0062. Groups A63B 69/0057 and A63B 69/0062 should be considered in order to perform a complete search.
- M A63B 69/0062
- {Leg restraining devices}
- WARNING**  
Group A63B 69/0062 is incomplete pending reclassification of documents from group A63B 69/0057. Groups A63B 69/0057 and A63B 69/0062 should be considered in order to perform a complete search.

**Project: RP0617-F (A63B)**

- M A63B 69/0093
- {for surfing, i.e. without a sail; for skate or snow boarding}
- WARNING**  
Group A63B 69/0093 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/70 and B63B 35/00. All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP10459 (A63B)**

- C A63B 69/20
- Punching balls {, e.g. for boxing; Other ~~boxing training devices~~ *devices for striking used during training of combat sports*, e.g. bags (~~A63B 69/34~~ takes precedence)}
- WARNING**  
Group A63B 69/20 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/203, A63B 69/34 and A63B 2244/10. Group A63B 69/20 is also impacted by reclassification into groups A63B 69/22, A63B 69/222, A63B 69/24, A63B 69/244, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108. All groups listed in this Warning should be considered in order to perform a complete search.
- D A63B 69/201
- {~~Hanging heavy punching bags~~  
<administratively transferred to [A63B 69/305](#)>
- F A63B 69/203  
(Frozen)
- {Punching balls, i.e. mainly designed to be hit at resonant frequency}
- WARNING**  
Group A63B 69/203 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/20, A63B 69/22, A63B 69/222, A63B 69/24, A63B 69/244, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108. All groups listed in this Warning should be considered in order to perform a complete search.
- F A63B 69/205  
(Frozen)
- • {hanging downwards}
- WARNING**  
Group A63B 69/205 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/222 and A63B 69/244.

*Groups [A63B 69/205](#), [A63B 69/222](#) and [A63B 69/244](#) should be considered in order to perform a complete search.*

F A63B 69/206  
(Frozen)

- • {mounted by using attachments at opposite points}

**WARNING**

*Group [A63B 69/206](#) is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups [A63B 69/28](#) and [A63B 69/30](#).*

*Groups [A63B 69/206](#), [A63B 69/28](#) and [A63B 69/30](#) should be considered in order to perform a complete search.*

D A63B 69/208

- • {~~mounted on a resilient foot~~  
<administratively transferred to [A63B 69/224](#)>

N A63B 69/215

- • {Anthropomorphic devices}

**WARNING**

*Group [A63B 69/215](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/34](#) and [A63B 2244/10](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

N A63B 69/22

- • mounted on, or suspended from, a fixed support

**WARNING**

*Group [A63B 69/22](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/34](#) and [A63B 2244/10](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

N A63B 69/222

- • {suspended from a fixed support}

**WARNING**

*Group [A63B 69/222](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/205](#), [A63B 69/34](#) and [A63B 2244/10](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

N A63B 69/224

- • {mounted on a resilient foot}

**WARNING**

*Group [A63B 69/224](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/34](#) and [A63B 2244/10](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

C A63B 69/24

- • mounted on, or suspended from, a movable support

**WARNING**

*Group [A63B 69/24](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/34](#) and [A63B 2244/10](#). Group [A63B 69/24](#) is also impacted by reclassification into group [A63B 69/244](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*



- N A63B 69/244
- • • {suspended from a movable support}
- WARNING  
Group [A63B 69/244](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/205](#), [A63B 69/24](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- T A63B 69/26
- • • attached to the human body
- WARNING  
Group [A63B 69/26](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N A63B 69/28
- • Attachments located on the balls {or other training devices} at opposite points
- WARNING  
Group [A63B 69/28](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/206](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N A63B 69/30
- • • Resilient attachments
- WARNING  
Group [A63B 69/30](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/206](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N A63B 69/305
- • {Hanging heavy punching bags}
- WARNING  
Group [A63B 69/305](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C A63B 69/32
- • with indicating devices
- WARNING  
Group [A63B 69/32](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/34](#) and [A63B 2244/10](#). Group [A63B 69/32](#) is also impacted by reclassification into group [A63B 69/322](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N A63B 69/322
- • • {to instruct user where to strike}
- WARNING  
Group [A63B 69/322](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/32](#), [A63B 69/34](#) and [A63B 2244/10](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- U A63B 69/325
- • • {for vertical blows on a horizontal surface}
- N A63B 69/331
- {Breaking boards or holders therefore, i.e. devices for destroying exercises}
- N A63B 69/333
- {Fake or disarmed practise weapons, i.e. for mimicking combat situations in martial arts training}

- C A63B 69/34
- ~~{Dummies; Tackling, blocking or grappling dummies, e.g.} boxing or {wrestling or American-} football dummies~~
- WARNING**  
 Group A63B 69/34 is incomplete pending reclassification of documents from groups A63B 69/004 and A63B 2244/10. Group A63B 69/34 is also impacted by reclassification into groups A63B 69/20, A63B 69/215, A63B 69/22, A63B 69/222, A63B 69/224, A63B 69/24, A63B 69/244, A63B 69/26, A63B 69/28, A63B 69/30, A63B 69/305, A63B 69/32, A63B 69/322, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- D A63B 69/345
- ~~{(American-) football, rugby, wrestling dummies, e.g. for tackling, blocking} <administratively transferred to [A63B 69/34](#)>~~

**Project: RP0127-F (A63B)**

- M A63B 69/36
- for golf
- WARNING**  
 Group A63B 69/36 is impacted by reclassification into group A63B 69/3605. Groups A63B 69/36 and A63B 69/3605 should be considered in order to perform a complete search.
- M A63B 69/3605
- {Golf club selection aids informing player of his average or expected shot distance for each club}
- WARNING**  
 Group A63B 69/3605 is incomplete pending reclassification of documents from group A63B 69/36. Groups A63B 69/36 and A63B 69/3605 should be considered in order to perform a complete search.
- M A63B 69/3617
- {Striking surfaces with impact indicating means, e.g. markers}
- WARNING**  
 Group A63B 69/3617 is impacted by reclassification into group A63B 69/362. Groups A63B 69/3617 and A63B 69/362 should be considered in order to perform a complete search.
- M A63B 69/362
- • {electrical or electronic}
- WARNING**  
 Group A63B 69/362 is incomplete pending reclassification of documents from group A63B 69/3617. Groups A63B 69/3617 and A63B 69/362 should be considered in order to perform a complete search.
- M A63B 69/3623
- {for driving ([A63B 69/3608](#), [A63B 69/3658](#), [A63B 69/3661](#), [A63B 69/3667](#) and [A63B 69/3691](#) take precedence)}
- WARNING**  
 Group A63B 69/3623 is impacted by reclassification into groups A63B 69/3629, A63B 2214/00, and A63B 2225/11. All groups listed in this Warning should be considered in order to perform a complete search.

- M A63B 69/3629
- • • {Visual means not attached to the body for aligning, positioning the trainee's head or for detecting head movement, e.g. by parallax}
- WARNING**  
Group A63B 69/3629 is incomplete pending reclassification of documents from group A63B 69/3623. Groups A63B 69/3623 and A63B 69/3629 should be considered in order to perform a complete search.
- M A63B 69/3676
- • {for putting ([A63B 69/3608](#), [A63B 69/3661](#), [A63B 69/3667](#) and [A63B 69/3697](#) take precedence)}
- WARNING**  
Group A63B 69/3676 is impacted by reclassification into group A63B 69/3682. Groups A63B 69/3676 and A63B 69/3682 should be considered in order to perform a complete search.
- M A63B 69/3682
- • • {Visual means not attached to the body for aligning, positioning the trainee's head or for detecting head movement, e.g. by parallax}
- WARNING**  
Group A63B 69/3682 is incomplete pending reclassification of documents from group A63B 69/3676. Groups A63B 69/3676 and A63B 69/3682 should be considered in order to perform a complete search.
- U A63B 71/00**
- Games or sports accessories not covered in groups [A63B 1/00](#) - [A63B 69/00](#) (starting appliances [A63K 3/02](#))**
- M A63B 71/02
- for large-room or outdoor sporting games
- WARNING**  
Group A63B 71/02 is impacted by reclassification into group A63B 71/03. Groups A63B 71/02 and A63B 71/03 should be considered in order to perform a complete search.
- M A63B 71/03
- • {Athletic drills or obstacles for sport training, other than foot obstacles for skipping}
- WARNING**  
Group A63B 71/03 is incomplete pending reclassification of documents from group A63B 71/02. Groups A63B 71/02 and A63B 71/03 should be considered in order to perform a complete search.
- M A63B 2209/00**
- Characteristics of used materials**
- WARNING**  
Group A63B 2209/00 is impacted by reclassification into group A63B 2209/18. Groups A63B 2209/00 and A63B 2209/18 should be considered in order to perform a complete search.
- M A63B 2209/18
- biodegradable
- WARNING**  
Group A63B 2209/18 is incomplete pending reclassification of documents from group A63B 2209/00. Groups A63B 2209/00 and A63B 2209/18 should be considered in order to perform a complete search.

M A63B 2214/00

**Training methods****WARNING**

Group A63B 2214/00 is incomplete pending reclassification of documents from group A63B 69/3623.  
Groups A63B 69/3623 and A63B 2214/00 should be considered in order to perform a complete search.

U A63B 2225/00

**Miscellaneous features of sport apparatus, devices or equipment**

M A63B 2225/11

- specially adapted to be transported on a trailer

**WARNING**

Group A63B 2225/11 is incomplete pending reclassification of documents from group A63B 69/3623.  
Groups A63B 69/3623 and A63B 2225/11 should be considered in order to perform a complete search.

**Project: MP10335 (A63B)**

U A63B 2230/00

**Measuring physiological parameters of the user**

M A63B 2230/04

- heartbeat characteristics, e.g. **E.G.C.ECG**, blood pressure modulations

**Project: RP10459 (A63B)**

U A63B 2244/00

**Sports without balls**

C A63B 2244/10

- Combat sports (~~Rugby, American football A63B 2243/0066~~)

**WARNING**

Group A63B 2244/10 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203 and A63B 69/34. Group A63B 2244/10 is also impacted by reclassification into groups A63B 69/20, A63B 69/215, A63B 69/22, A63B 69/222, A63B 69/224, A63B 69/24, A63B 69/244, A63B 69/26, A63B 69/28, A63B 69/30, A63B 69/305, A63B 69/32, A63B 69/322, A63B 69/34, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108.

All groups listed in this Warning should be considered in order to perform a complete search.

T A63B 2244/102

- • Boxing

**WARNING**

Group A63B 2244/102 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

T A63B 2244/104

- • Judo

**WARNING**

Group A63B 2244/104 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

T A63B 2244/106 • • Karate

**WARNING**

Group [A63B 2244/106](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/34](#) and [A63B 2244/10](#).

All groups listed in this Warning should be considered in order to perform a complete search.

T A63B 2244/108 • • Wrestling

**WARNING**

Group [A63B 2244/108](#) is incomplete pending reclassification of documents from groups [A63B 69/004](#), [A63B 69/20](#), [A63B 69/203](#), [A63B 69/34](#) and [A63B 2244/10](#).

All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP0452-F (A63C)**

M A63C 5/00

Skis or snowboards (sledges with runners, e.g. ski-bobs, [B62B 13/00](#); runners for sledges [B62B 17/02](#); runners for carrying wheeled vehicles to facilitate travel on snow or ice [B62B 19/00](#))

**WARNING**

Group [A63C 5/00](#) is impacted by reclassification into group [A63C 5/025](#). Groups [A63C 5/00](#) and [A63C 5/025](#) should be considered in order to perform a complete search.

M A63C 5/02 • collapsible; divided

**WARNING**

Group [A63C 5/02](#) is impacted by reclassification into group [A63C 5/025](#).

Groups [A63C 5/02](#) and [A63C 5/025](#) should be considered in order to perform a complete search.

M A63C 5/025 • Short skis

**WARNING**

Group [A63C 5/025](#) is incomplete pending reclassification of documents from groups [A63C 5/00](#) and [A63C 5/02](#).

Groups [A63C 5/00](#), [A63C 5/02](#) and [A63C 5/025](#) should be considered in order to perform a complete search.

**Project: RP0617-F (A63C)**

M A63C 5/11 • combined with sails or the like {; Accessories specially adapted for sail-skiing}

**NOTE**

When classifying in this group, details of sail or rigging arrangements which are suited for marine wind propulsion are also classified in the relevant groups of subclass [B63H](#), e.g. in groups [B63H 8/00](#), [B63H 9/04](#).

**WARNING**

Group [A63C 5/11](#) is impacted by reclassification into groups [B63H 8/00](#) - [B63H 8/70](#) and [B63H 9/04](#) - [B63H 9/072](#).

All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP0452-F (A63C)**

- U A63C 11/00 Accessories for skiing or snowboarding (fittings on vehicles for carrying skis [B60R 9/12](#))
- U A63C 11/22 · Ski-sticks
- M A63C 11/222 · · {Ski-stick handles or hand-straps}
- WARNING**  
Group A63C 11/222 is impacted by reclassification into groups A63C 11/2224 and A63C 11/2228.  
Groups A63C 11/222, A63C 11/2224 and A63C 11/2228 should be considered in order to perform a complete search.
- M A63C 11/2224 · · · {Connection systems for hand-straps}
- WARNING**  
Group A63C 11/2224 is incomplete pending reclassification of documents from group A63C 11/222.  
Groups A63C 11/222 and A63C 11/2224 should be considered in order to perform a complete search.
- M A63C 11/2228 · · · {Details of hand-straps}
- WARNING**  
Group A63C 11/2228 is incomplete pending reclassification of documents from group A63C 11/222.  
Groups A63C 11/222 and A63C 11/2228 should be considered in order to perform a complete search.

**Project: RP0617-F (A63H)**

- U A63H 27/00 Toy aircraft; Other flying toys (toys with parachutes [A63H 33/20](#) ); Starting or launching devices therefor}
- M A63H 27/08 · Kites (kite-sails or kite-wings specially adapted for water sports boards [B63H 8/10](#); kite-sails for wind propelled vessels [B63H 9/069](#))
- WARNING**  
Groups A63H 27/08 -- A63H 27/087 are impacted by reclassification into groups B63H 8/10 -- B63H 8/18, B63H 8/23, B63H 8/25, B63H 8/50 -- B63H 8/70 and B63H 9/068 -- B63H 9/072.  
All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP10389 (B01D)**

- M B01D SEPARATION (separating solids from solids by wet methods [B03B](#), [B03D](#); by pneumatic jigs or tables [B03B](#); by other dry methods [B07](#); magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high-voltage electric fields [B03C](#); centrifuges, vortex apparatus [B04](#); presses *per se* for squeezing-out liquid from liquid-containing material [B30B 9/02](#); treatment of water [C02F](#), e.g. softening by ion-exchange [C02F 1/42](#); {arrangements of air intake cleaners in gas turbine plants [F02C 7/05](#) } ; arrangements or mounting of filters in air-conditioning, air-humidification or ventilation [F24F 13/28](#))

**NOTES**

1. This subclass *covers*:
  - evaporation, distillation, crystallisation, filtration, dust precipitation, gas cleaning, absorption, adsorption;



- similar processes which are not concerned with, or limited to, separation, except in the case of absorption or adsorption.
2. In this subclass, the terms or expressions are used with the meaning indicated:
- "filtration" and analogous terms include straining solids from fluids. Filtration is a process that normally uses a filter medium;
  - "filter medium" is a porous material or porous arrangement of material used to filter solids from fluids;
  - "filtering element" is a section of filter medium in addition to parts to which the medium is demountably or permanently fixed, including other sections of medium, end caps, peripheral frames or edge strips, but excluding housings;
  - "filter housing" is the fluid-constraining impervious vessel, whether open or closed, which contains, or is adapted to contain, one or more filtering elements or filter media;
  - "filter chamber" is the space within a housing, where filtering elements or filter media are located. Partitions may divide a single housing into a plurality of chambers;
  - "filtering apparatus" consists of filtering elements combined with housings, cleaning arrangements, motor or the like parts, which are characteristic of the particular type of apparatus. Ancillary devices such as pumps or valves are considered part of a filtering apparatus when inside the apparatus. Ancillary devices performing similar or different unit operation such as comminutors, mixers or non-filtering separators, whether or not inside the apparatus, are not considered part of a filtering apparatus. The term does not extend to apparatus, e.g. washing machines, of which the filter forms only a part.
3. For apparatus used in drying or evaporation, class [F26](#) takes precedence over this subclass.
4. Group [B01D 59/00](#) takes precedence over the other groups of this subclass and over other subclasses in class [B01](#).

*5. {In this subclass, combination sets [C-Sets] are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the definitions of [B01D](#).}*

#### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">B01D 15/04</a>	covered by	<a href="#">B01J 39/00</a> - <a href="#">B01J 49/90</a>
<a href="#">B01D 17/022</a>	covered by	<a href="#">B01D 17/0202</a>
<a href="#">B01D 17/025</a>	covered by	<a href="#">B01D 17/0208</a>
<a href="#">B01D 17/028</a>	covered by	<a href="#">B01D 17/0211</a>
<a href="#">B01D 17/032</a>	covered by	<a href="#">B01D 17/0214</a>
<a href="#">B01D 17/035</a>	covered by	<a href="#">B01D 17/0205</a>
<a href="#">B01D 17/038</a>	covered by	<a href="#">B01D 17/0217</a>
<a href="#">B01D 17/05</a>	covered by	<a href="#">B01D 17/047</a>
<a href="#">B01D 17/09</a>	covered by	<a href="#">B01D 17/005</a>
<a href="#">B01D 25/133</a>	covered by	<a href="#">B01D 25/285</a>
<a href="#">B01D 25/168</a>	covered by	<a href="#">B01D 25/285</a>
<a href="#">B01D 29/37</a>	covered by	<a href="#">B01D 29/336</a> , <a href="#">B01D 29/356</a>
<a href="#">B01D 35/01</a>	covered by	<a href="#">B01D 36/001</a>
<a href="#">B01D 61/26</a>	covered by	<a href="#">A61M 1/1656</a>
<a href="#">B01D 61/34</a>	covered by	<a href="#">A61M 1/16</a>

2. {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.}

- M B01D 61/00 - B01D 71/00** Processes of separation using semi-permeable membranes, e.g. dialysis, osmosis, or ultrafiltration; Apparatus specially adapted therefor; Semi-permeable membranes or their production
- NOTE**  
In *IPC* groups [B01D 61/00](#) - [B01D 71/00](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place ~~{(with respect to. {The last place priority [B01D 71/00](#), see also Note (1) following that group})}~~.rule in groups [B01D 61/00](#) - [B01D 69/00](#) is not applied in the CPC.}
- M B01D 61/00** Processes of separation using semi-permeable membranes, e.g. dialysis, osmosis, or ultrafiltration; Apparatus, accessories or auxiliary operations specially adapted therefor ([separation of gases or vapours by diffusion B01D 53/22](#))
- NOTE**
- ~~In groups {When classifying [B01D 61/00](#) in this [B01D 61/58](#) it is desirable to add group, the indexing codes relating to process operations and control chosen from of the following groups [B01D 2311/00](#) must be [B01D 2311/2696](#), added to details relating to membrane modules and apparatus indexing codes chosen from [B01D 2313/00](#) - [B01D 2313/90](#), to details relating to the membrane module operation indexing codes chosen from [B01D 2315/00](#) - [B01D 2315/16](#), to details relating to the module arrangement within a plant or an apparatus indexing codes chosen from [B01D 2317/00](#) - [B01D 2317/08](#) and to details relating to the membrane assembly within one housing indexing codes chosen from [B01D 2319/00](#) - [B01D 2319/06](#) if applicable:~~
    - [B01D 2311/00](#) for details related to process operations and control;
    - [B01D 2313/00](#) for details related to membrane modules or apparatus;
    - [B01D 2315/00](#) for details related to the membrane module operation;
    - [B01D 2317/00](#) for details related to the module arrangement within a plant or an apparatus;
    - [B01D 2319/00](#) for details related to the membrane assembly within one housing.
  - ~~{Multistep processes comprising two or more membrane-separation steps of different kinds must be classified in [B01D 61/58](#) in combination with the subgroup for the specific steps. The symbols relating to the specific steps are added as "additional information."}~~
  - ~~{Multistep processes comprising two or more membrane-separation steps of the same kind must be classified in the subgroup covering the specific multistep membrane separation, e.g. [B01D 61/029](#) for processes comprising two or more reverse osmosis steps, [B01D 61/3621](#) for processes comprising two or more pervaporation steps.}~~
- C B01D 61/002** ~~• {Forward osmosis, [direct osmosis](#) or [direct osmosis](#)} {actuators for pressure retarded osmosis [F03G 7/015](#)}~~
- WARNING**  
Group [B01D 61/002](#) is impacted by reclassification into groups [B01D 61/0021](#), [B01D 61/0022](#), [B01D 61/0023](#) and [B01D 61/0024](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 61/0021** ~~• {comprising multiple forward osmosis steps}~~
- WARNING**  
Group [B01D 61/0021](#) is incomplete pending reclassification of documents from group [B01D 61/002](#).

Groups [B01D 61/002](#) and [B01D 61/0021](#) should be considered in order to perform a complete search.

N B01D 61/0022

- {Apparatus therefor}

WARNING

Group [B01D 61/0022](#) is incomplete pending reclassification of documents from group [B01D 61/002](#).

Groups [B01D 61/002](#) and [B01D 61/0022](#) should be considered in order to perform a complete search.

N B01D 61/0023

- {Accessories; Auxiliary operations}

WARNING

Group [B01D 61/0023](#) is incomplete pending reclassification of documents from group [B01D 61/002](#).

Groups [B01D 61/002](#) and [B01D 61/0023](#) should be considered in order to perform a complete search.

N B01D 61/0024

- {Controlling or regulating}

WARNING

Group [B01D 61/0024](#) is incomplete pending reclassification of documents from group [B01D 61/002](#).

Groups [B01D 61/002](#) and [B01D 61/0024](#) should be considered in order to perform a complete search.

M B01D 61/005

- {Osmotic agents; ~~draw solutions~~; Draw solutions}

U B01D 61/02

- Reverse osmosis; Hyperfiltration {; Nanofiltration}

D B01D 61/022

- {comprising multiple reverse osmosis, hyperfiltration or nanofiltration steps} <administratively transferred to [B01D 61/026](#)>

M B01D 61/025

- {Reverse osmosis; Hyperfiltration (~~B01D 61/022 takes precedence~~)}

Q B01D 61/026

- • {comprising multiple reverse osmosis steps}

WARNING

Group [B01D 61/026](#) is impacted by reclassification into groups [B01D 61/0271](#) and [B01D 61/029](#).

Groups [B01D 61/026](#), [B01D 61/0271](#) and [B01D 61/029](#) should be considered in order to perform a complete search.

M B01D 61/027

- {Nanofiltration (~~B01D 61/022 takes precedence~~)}

N B01D 61/0271

- • {comprising multiple nanofiltration steps}

WARNING

Group [B01D 61/0271](#) is incomplete pending reclassification of documents from group [B01D 61/026](#).

Groups [B01D 61/026](#) and [B01D 61/0271](#) should be considered in order to perform a complete search.

N B01D 61/029

- {Multistep processes comprising different kinds of membrane processes selected from reverse osmosis, hyperfiltration or nanofiltration}

WARNING

Group [B01D 61/029](#) is incomplete pending reclassification of documents from group [B01D 61/026](#).

Groups [B01D 61/026](#) and [B01D 61/029](#) should be considered in order to perform a complete search.

- M B01D 61/04
- • Feed pretreatment
- NOTE**  
*{When classifying in this group, the type of pretreatment must be specified with the indexing codes of groups [B01D 2311/04](#) and [B01D 2311/10 - B01D 2311/2696](#).}*
- C B01D 61/08
- • Apparatus therefor
- WARNING**  
*Group [B01D 61/08](#) is impacted by reclassification into group [B01D 61/081](#). Groups [B01D 61/08](#) and [B01D 61/081](#) should be considered in order to perform a complete search.*
- N B01D 61/081
- • • {used at home, e.g. kitchen}
- WARNING**  
*Group [B01D 61/081](#) is incomplete pending reclassification of documents from group [B01D 61/08](#). Groups [B01D 61/08](#) and [B01D 61/081](#) should be considered in order to perform a complete search.*
- U B01D 61/14
- Ultrafiltration; Microfiltration
- D B01D 61/142
- • {comprising multiple ultrafiltration or microfiltration steps}
- <administratively transferred to [B01D 61/146](#)>
- M B01D 61/145
- • {Ultrafiltration (~~B01D 61/142 takes precedence~~)}
- Q B01D 61/146
- • • {comprising multiple ultrafiltration steps}
- WARNING**  
*Group [B01D 61/146](#) is impacted by reclassification into groups [B01D 61/1471](#) and [B01D 61/149](#). Groups [B01D 61/146](#), [B01D 61/1471](#) and [B01D 61/149](#) should be considered in order to perform a complete search.*
- M B01D 61/147
- • {Microfiltration (~~B01D 61/142 takes precedence~~)}
- N B01D 61/1471
- • • {comprising multiple microfiltration steps}
- WARNING**  
*Group [B01D 61/1471](#) is incomplete pending reclassification of documents from group [B01D 61/146](#). Groups [B01D 61/146](#) and [B01D 61/1471](#) should be considered in order to perform a complete search.*
- N B01D 61/149
- • {Multistep processes comprising different kinds of membrane processes selected from ultrafiltration or microfiltration}
- WARNING**  
*Group [B01D 61/149](#) is incomplete pending reclassification of documents from group [B01D 61/146](#). Groups [B01D 61/146](#) and [B01D 61/149](#) should be considered in order to perform a complete search.*
- M B01D 61/16
- • Feed pretreatment
- NOTE**  
*{In group [B01D 61/16](#) the type of pretreatment must be specified with the indexing codes [B01D 2311/04](#) and [B01D 2311/10 - B01D 2311/2696](#).}*

- C B01D 61/24
- Dialysis {; Membrane extraction (~~dialysate solution flow A61M 1/1656~~)}
- WARNING**  
 Group [B01D 61/24](#) is impacted by reclassification into groups [B01D 61/244](#) and [B01D 61/2461](#).  
 Groups [B01D 61/24](#), [B01D 61/244](#) and [B01D 61/2461](#) should be considered in order to perform a complete search.
- C B01D 61/243
- {Dialysis}
- WARNING**  
 Group [B01D 61/243](#) is impacted by reclassification into group [B01D 61/244](#).  
 Groups [B01D 61/243](#) and [B01D 61/244](#) should be considered in order to perform a complete search.
- N B01D 61/244
- • {comprising multiple dialysis steps}
- WARNING**  
 Group [B01D 61/244](#) is incomplete pending reclassification of documents from groups [B01D 61/24](#) and [B01D 61/243](#).  
 Groups [B01D 61/24](#), [B01D 61/243](#) and [B01D 61/244](#) should be considered in order to perform a complete search.
- C B01D 61/246
- {Membrane extraction}
- WARNING**  
 Group [B01D 61/246](#) is impacted by reclassification into group [B01D 61/2461](#).  
 Groups [B01D 61/246](#) and [B01D 61/2461](#) should be considered in order to perform a complete search.
- N B01D 61/2461
- • {comprising multiple membrane extraction steps}
- WARNING**  
 Group [B01D 61/2461](#) is incomplete pending reclassification of documents from groups [B01D 61/24](#) and [B01D 61/246](#).  
 Groups [B01D 61/24](#), [B01D 61/246](#) and [B01D 61/2461](#) should be considered in order to perform a complete search.
- M B01D 61/30
- • Accessories; Auxiliary ~~operations~~operation
- M B01D 61/32
- • Controlling or regulating ~~{(measuring ultrafiltrate during dialysis A61M 1/16)}~~
- C B01D 61/36
- Pervaporation; Membrane distillation; Liquid permeation
- WARNING**  
 Group [B01D 61/36](#) is impacted by reclassification into groups [B01D 61/363](#), [B01D 61/3631](#), [B01D 61/365](#) and [B01D 61/3651](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- C B01D 61/362
- {Pervaporation}
- WARNING**  
 Group [B01D 61/362](#) is impacted by reclassification into group [B01D 61/3621](#).  
 Groups [B01D 61/362](#) and [B01D 61/3621](#) should be considered in order to perform a complete search.
- N B01D 61/3621
- • {comprising multiple pervaporation steps}
- WARNING**  
 Group [B01D 61/3621](#) is incomplete pending reclassification of documents from group [B01D 61/362](#).

Groups [B01D 61/362](#) and [B01D 61/3621](#) should be considered in order to perform a complete search.

N B01D 61/363

- {Vapour permeation}

WARNING

Groups [B01D 61/363](#) and [B01D 61/3631](#) are incomplete pending reclassification of documents from group [B01D 61/36](#).

Groups [B01D 61/36](#), [B01D 61/363](#) and [B01D 61/3631](#) should be considered in order to perform a complete search.

N B01D 61/3631

- • {comprising multiple vapour permeation steps}

C B01D 61/364

- {Membrane distillation}

WARNING

Group [B01D 61/364](#) is impacted by reclassification into group [B01D 61/3641](#). Groups [B01D 61/364](#) and [B01D 61/3641](#) should be considered in order to perform a complete search.

N B01D 61/3641

- • {comprising multiple membrane distillation steps}

WARNING

Group [B01D 61/3641](#) is incomplete pending reclassification of documents from group [B01D 61/364](#).

Groups [B01D 61/364](#) and [B01D 61/3641](#) should be considered in order to perform a complete search.

N B01D 61/365

- {Osmotic distillation or osmotic evaporation}

WARNING

Groups [B01D 61/365](#) and [B01D 61/3651](#) are incomplete pending reclassification of documents from group [B01D 61/36](#).

Groups [B01D 61/36](#), [B01D 61/365](#) and [B01D 61/3651](#) should be considered in order to perform a complete search.

N B01D 61/3651

- • {comprising multiple osmotic distillation or evaporation steps}

C B01D 61/42

- Electro dialysis; Electro-osmosis {~~Electro-ultrafiltration~~; ~~Electro-ultrafiltration~~; ~~Membrane capacitive deionization~~}

WARNING

Group [B01D 61/42](#) is impacted by reclassification into groups [B01D 61/423](#), [B01D 61/4251](#), [B01D 61/4271](#), [B01D 61/428](#) and [B01D 61/4281](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B01D 61/422

- {Electrodialysis}

WARNING

Group [B01D 61/422](#) is impacted by reclassification into group [B01D 61/423](#). Groups [B01D 61/422](#) and [B01D 61/423](#) should be considered in order to perform a complete search.

N B01D 61/423

- • {comprising multiple electrodialysis steps}

WARNING

Group [B01D 61/423](#) is incomplete pending reclassification of documents from groups [B01D 61/42](#) and [B01D 61/422](#).

Groups [B01D 61/42](#), [B01D 61/422](#) and [B01D 61/423](#) should be considered in order to perform a complete search.



- C B01D 61/425      • • {Electro-ultrafiltration}
- WARNING**  
Group [B01D 61/425](#) is impacted by reclassification into group [B01D 61/4251](#). Groups [B01D 61/425](#) and [B01D 61/4251](#) should be considered in order to perform a complete search.
- N B01D 61/4251      • • • {comprising multiple electro-ultrafiltration steps}
- WARNING**  
Group [B01D 61/4251](#) is incomplete pending reclassification of documents from groups [B01D 61/42](#) and [B01D 61/425](#). Groups [B01D 61/42](#), [B01D 61/425](#) and [B01D 61/4251](#) should be considered in order to perform a complete search.
- C B01D 61/427      • • {Electro-osmosis}
- WARNING**  
Group [B01D 61/427](#) is impacted by reclassification into group [B01D 61/4271](#). Groups [B01D 61/427](#) and [B01D 61/4271](#) should be considered in order to perform a complete search.
- N B01D 61/4271      • • • {comprising multiple electro-osmosis steps}
- WARNING**  
Group [B01D 61/4271](#) is incomplete pending reclassification of documents from groups [B01D 61/42](#) and [B01D 61/427](#). Groups [B01D 61/42](#), [B01D 61/427](#) and [B01D 61/4271](#) should be considered in order to perform a complete search.
- N B01D 61/428      • • {Membrane capacitive deionization}
- WARNING**  
Groups [B01D 61/428](#) and [B01D 61/4281](#) are incomplete pending reclassification of documents from group [B01D 61/42](#). Groups [B01D 61/42](#), [B01D 61/428](#) and [B01D 61/4281](#) should be considered in order to perform a complete search.
- N B01D 61/4281      • • • {comprising multiple membrane capacitive deionization steps}
- U B01D 61/44      • • Ion-selective electrodialysis
- C B01D 61/46      • • • Apparatus therefor
- WARNING**  
Group [B01D 61/46](#) is impacted by reclassification into groups [B01D 61/461](#), [B01D 61/462](#), [B01D 61/463](#), [B01D 61/464](#), [B01D 61/465](#), [B01D 61/466](#), [B01D 61/467](#) and [B01D 61/468](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 61/461      • • • {comprising only a single cell, only one anion or cation exchange membrane or one pair of anion and cation membranes}
- WARNING**  
Group [B01D 61/461](#) is incomplete pending reclassification of documents from group [B01D 61/46](#). Groups [B01D 61/46](#) and [B01D 61/461](#) should be considered in order to perform a complete search.

- N B01D 61/462 . . . {comprising the membrane sequence AA, where A is an anion exchange membrane}
- WARNING  
Group [B01D 61/462](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/462](#) should be considered in order to perform a complete search.
- N B01D 61/463 . . . {comprising the membrane sequence AC or CA, where C is a cation exchange membrane}
- WARNING  
Group [B01D 61/463](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/463](#) should be considered in order to perform a complete search.
- N B01D 61/464 . . . {comprising the membrane sequence CC}
- WARNING  
Group [B01D 61/464](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/464](#) should be considered in order to perform a complete search.
- N B01D 61/465 . . . {comprising the membrane sequence AB or BA, where B is a bipolar membrane}
- WARNING  
Group [B01D 61/465](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/465](#) should be considered in order to perform a complete search.
- N B01D 61/466 . . . {comprising the membrane sequence BC or CB}
- WARNING  
Group [B01D 61/466](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/466](#) should be considered in order to perform a complete search.
- N B01D 61/467 . . . {comprising the membrane sequence BB}
- WARNING  
Group [B01D 61/467](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/467](#) should be considered in order to perform a complete search.
- N B01D 61/468 . . . {comprising more than two electrodes}
- WARNING  
Group [B01D 61/468](#) is incomplete pending reclassification of documents from group [B01D 61/46](#).  
Groups [B01D 61/46](#) and [B01D 61/468](#) should be considered in order to perform a complete search.
- M B01D 61/52 . . . Accessories; Auxiliary **operationsoperation**

- M B01D 61/58
- Multistep processes ~~{(comprising reverse osmosis or hyperfiltration steps B01D 61/022; comprising ultrafiltration or microfiltration steps B01D 61/142)}~~
- NOTE**  
*{In group B01D 61/58 the symbols relating to the specific process steps within the multistep process are indexed by codes chosen from B01D 61/02 - in B01D 61/00 - B01D 61/56 are given as additional information.}*
- M B01D 63/00
- Apparatus in general for separation processes using semi-permeable membranes**
- NOTE**
1. In groups *{When B01D 63/00 -classifying in B01D 63/16 it is desirable to add this group, the indexing codes relating to membrane modules and apparatus chosen from of the following groups B01D 2313/00 - must be B01D 2313/90 ;added*  
to details relating to the membrane module operation indexing codes chosen from B01D 2315/00 - B01D 2315/16;  
to details relating to the module arrangement within a plant or an apparatus indexing codes chosen from B01D 2317/00 - B01D 2317/08 and  
to details relating to the membrane assembly within one housing indexing codes are chosen from B01D 2319/00 - B01D 2319/06 if applicable:
    - *B01D 2313/00 for details related to membrane modules and apparatus;*
    - *B01D 2315/00 for details related to the membrane module operation;*
    - *B01D 2317/00 for details related to the module arrangement within a plant or an apparatus;*
    - *B01D 2319/00 for details related to the membrane assembly within one housing.*
- }*
2. *{Attention is drawn to the Note following B01D 59/50, which indicates the last place rule is not applied in B01D 63/00.}*
- M B01D 63/005
- ~~{Microfluidic devices comprising semi-permeable hollow fibre membranes}~~ *{Microfluidic devices comprising semi-permeable hollow fibre membranes B01D 63/028; Microfluidic devices comprising semi-permeable flat membranes B01D 63/088}*
- C B01D 63/02
- Hollow fibre modules
- WARNING**  
*Group B01D 63/02 is impacted by reclassification into groups B01D 63/031, B01D 63/032, B01D 63/033 and B01D 63/034.  
All groups listed in this Warning should be considered in order to perform a complete search.*
- C B01D 63/021
- • {Manufacturing thereof}
- WARNING**  
*Group B01D 63/021 is impacted by reclassification into groups B01D 63/0231, B01D 63/0232 and B01D 63/0233.  
All groups listed in this Warning should be considered in order to perform a complete search.*
- C B01D 63/022
- • • {Encapsulating hollow fibres}
- WARNING**  
*Group B01D 63/022 is impacted by reclassification into groups B01D 63/0221, B01D 63/0222, B01D 63/0223, B01D 63/0224 and B01D 63/0225.  
All groups listed in this Warning should be considered in order to perform a complete search.*

- N B01D 63/0221 . . . {using a mould}  
WARNING  
 Group [B01D 63/0221](#) is incomplete pending reclassification of documents from group [B01D 63/022](#).  
 Groups [B01D 63/022](#) and [B01D 63/0221](#) should be considered in order to perform a complete search.
- N B01D 63/0222 . . . {using centrifugal forces}  
WARNING  
 Group [B01D 63/0222](#) is incomplete pending reclassification of documents from group [B01D 63/022](#).  
 Groups [B01D 63/022](#) and [B01D 63/0222](#) should be considered in order to perform a complete search.
- N B01D 63/0223 . . . {by fixing the hollow fibres prior to encapsulation}  
WARNING  
 Group [B01D 63/0223](#) is incomplete pending reclassification of documents from group [B01D 63/022](#).  
 Groups [B01D 63/022](#) and [B01D 63/0223](#) should be considered in order to perform a complete search.
- N B01D 63/0224 . . . {Opening the fibre ends after encapsulation}  
WARNING  
 Group [B01D 63/0224](#) is incomplete pending reclassification of documents from group [B01D 63/022](#).  
 Groups [B01D 63/022](#) and [B01D 63/0224](#) should be considered in order to perform a complete search.
- N B01D 63/0225 . . . {Multiple encapsulation layers}  
WARNING  
 Group [B01D 63/0225](#) is incomplete pending reclassification of documents from group [B01D 63/022](#).  
 Groups [B01D 63/022](#) and [B01D 63/0225](#) should be considered in order to perform a complete search.
- M B01D 63/023 . . . {~~Materials therefor~~Encapsulating materials}
- N B01D 63/0231 . . . {using supporting structures, e.g. filaments for weaving mats}  
WARNING  
 Group [B01D 63/0231](#) is incomplete pending reclassification of documents from group [B01D 63/021](#).  
 Groups [B01D 63/021](#) and [B01D 63/0231](#) should be considered in order to perform a complete search.
- N B01D 63/0232 . . . {using hollow fibers mats as precursor, e.g. wound or pleated mats}  
WARNING  
 Group [B01D 63/0232](#) is incomplete pending reclassification of documents from group [B01D 63/021](#).  
 Groups [B01D 63/021](#) and [B01D 63/0232](#) should be considered in order to perform a complete search.
- N B01D 63/0233 . . . {forming the bundle}  
WARNING  
 Group [B01D 63/0233](#) is incomplete pending reclassification of documents from group [B01D 63/021](#).

Groups [B01D 63/021](#) and [B01D 63/0233](#) should be considered in order to perform a complete search.

- C B01D 63/024
- {with a single potted end ~~or U-shaped~~}
- WARNING**  
Group [B01D 63/024](#) is impacted by reclassification into group [B01D 63/0241](#). Groups [B01D 63/024](#) and [B01D 63/0241](#) should be considered in order to perform a complete search.
- N B01D 63/0241
- • • {being U-shaped}
- WARNING**  
Group [B01D 63/0241](#) is incomplete pending reclassification of documents from group [B01D 63/024](#). Groups [B01D 63/024](#) and [B01D 63/0241](#) should be considered in order to perform a complete search.
- U B01D 63/028
- {Microfluidic devices comprising semi-permeable hollow fibre membranes}
- D B01D 63/029
- {Microfluidic devices comprising semi-permeable hollow fibre membranes}
- <administratively transferred to [B01D 63/028](#)>
- N B01D 63/031
- {Two or more types of hollow fibres within one bundle or within one potting or tube-sheet}
- WARNING**  
Group [B01D 63/031](#) is incomplete pending reclassification of documents from group [B01D 63/02](#). Groups [B01D 63/02](#) and [B01D 63/031](#) should be considered in order to perform a complete search.
- N B01D 63/032
- {More than two tube sheets for one bundle}
- WARNING**  
Group [B01D 63/032](#) is incomplete pending reclassification of documents from group [B01D 63/02](#). Groups [B01D 63/02](#) and [B01D 63/032](#) should be considered in order to perform a complete search.
- N B01D 63/033
- {Specific distribution of fibres within one potting or tube-sheet}
- WARNING**  
Group [B01D 63/033](#) is incomplete pending reclassification of documents from group [B01D 63/02](#). Groups [B01D 63/02](#) and [B01D 63/033](#) should be considered in order to perform a complete search.
- N B01D 63/034
- {Lumen open in more than two directions}
- WARNING**  
Group [B01D 63/034](#) is incomplete pending reclassification of documents from group [B01D 63/02](#). Groups [B01D 63/02](#) and [B01D 63/034](#) should be considered in order to perform a complete search.
- C B01D 63/06
- Tubular membrane modules
- WARNING**  
Group [B01D 63/06](#) is impacted by reclassification into group [B01D 63/069](#). Groups [B01D 63/06](#) and [B01D 63/069](#) should be considered in order to perform a complete search.

- U B01D 63/068      • {with flexible membrane tubes}
- N B01D 63/069      • {comprising a bundle of tubular membranes}
- WARNING  
Group [B01D 63/069](#) is incomplete pending reclassification of documents from group [B01D 63/06](#).  
Groups [B01D 63/06](#) and [B01D 63/069](#) should be considered in order to perform a complete search.
- C B01D 63/08      • Flat membrane modules
- WARNING  
Group [B01D 63/08](#) is impacted by reclassification into group [B01D 63/089](#).  
Groups [B01D 63/08](#) and [B01D 63/089](#) should be considered in order to perform a complete search.
- C B01D 63/082      • {comprising a stack of flat membranes, ~~e.g. plate-and-frame devices~~}
- WARNING  
Group [B01D 63/082](#) is impacted by reclassification into groups [B01D 63/0821](#) and [B01D 63/0822](#).  
Groups [B01D 63/082](#), [B01D 63/0821](#) and [B01D 63/0822](#) should be considered in order to perform a complete search.
- N B01D 63/0821      • • {Membrane plate arrangements for submerged operation}
- WARNING  
Group [B01D 63/0821](#) is incomplete pending reclassification of documents from group [B01D 63/082](#).  
Groups [B01D 63/082](#) and [B01D 63/0821](#) should be considered in order to perform a complete search.
- N B01D 63/0822      • • {Plate-and-frame devices}
- WARNING  
Group [B01D 63/0822](#) is incomplete pending reclassification of documents from group [B01D 63/082](#).  
Groups [B01D 63/082](#) and [B01D 63/0822](#) should be considered in order to perform a complete search.
- U B01D 63/088      • {Microfluidic devices comprising semi-permeable flat membranes}
- N B01D 63/089      • {Modules where the membrane is in the form of a bag, membrane cushion or pad}
- WARNING  
Group [B01D 63/089](#) is incomplete pending reclassification of documents from group [B01D 63/08](#).  
Groups [B01D 63/08](#) and [B01D 63/089](#) should be considered in order to perform a complete search.
- C B01D 63/10      • Spiral-wound membrane modules
- WARNING  
Group [B01D 63/10](#) is impacted by reclassification into groups [B01D 63/101](#) and [B01D 63/107](#).  
Groups [B01D 63/10](#), [B01D 63/101](#) and [B01D 63/107](#) should be considered in order to perform a complete search.



- N B01D 63/101
- {Spiral winding}
- WARNING  
Group [B01D 63/101](#) is incomplete pending reclassification of documents from group [B01D 63/10](#).  
Groups [B01D 63/10](#) and [B01D 63/101](#) should be considered in order to perform a complete search.
- C B01D 63/103
- {Details relating to membrane envelopes}
- WARNING  
Group [B01D 63/103](#) is impacted by reclassification into group [B01D 63/1031](#).  
Groups [B01D 63/103](#) and [B01D 63/1031](#) should be considered in order to perform a complete search.
- N B01D 63/1031
- • {Glue line or sealing patterns}
- WARNING  
Group [B01D 63/1031](#) is incomplete pending reclassification of documents from group [B01D 63/103](#).  
Groups [B01D 63/103](#) and [B01D 63/1031](#) should be considered in order to perform a complete search.
- U B01D 63/106
- {Anti-Telescopic-Devices [ATD]}
- N B01D 63/107
- {Specific properties of the central tube or the permeate channel}
- WARNING  
Group [B01D 63/107](#) is incomplete pending reclassification of documents from group [B01D 63/10](#).  
Groups [B01D 63/10](#) and [B01D 63/107](#) should be considered in order to perform a complete search.
- M B01D 65/00**
- Accessories or auxiliary operations, in general, for separation processes or apparatus using semi-permeable membranes**
- NOTE  
{Attention is drawn to the Note following [B01D 59/50](#), which indicates the last place rule is not applied in [B01D 65/00](#).}
- D B01D 65/006
- {Membrane storage}
- <administratively transferred to [B01D 67/0097](#)>
- M B01D 65/02
- Membrane cleaning or sterilisation {; Membrane regeneration}
- NOTE  
In-group {When [B01D 65/02](#) it is desirable to addclassifying in this group, the indexing codes relating to membrane cleaning, regeneration, sterilization and prevention of membrane fouling chosen fromof the following groups [B01D 2321/00](#) -must be [B01D 2321/28](#)added if applicable:  
[B01D 2321/00](#) for details relating to membrane cleaning, regeneration, sterilization or to the prevention of fouling.  
}
- M B01D 65/04
- with movable bodies, e.g. foam balls
- WARNING  
Group [B01D 65/04](#) is no longer used for classification of new documents as from November 1st, 2007. Documents presently classified in this group are in the process of reclassification

- M B01D 65/06
- with special washing compositions
- WARNING**  
Group B01D 65/06 is no longer used for classification of new document as from November 1st, 2007. Documents presently classified in this group are in the process of reclassification
- M B01D 65/08
- Prevention of membrane fouling or of concentration polarisation
- NOTE**  
In group {When B01D 65/08 it is desirable to add classifying in this group, the indexing codes relating to membrane cleaning, regeneration, sterilization and prevention of membrane fouling chosen from of the following groups B01D 2321/00 – must be B01D 2321/28 added if applicable:  
B01D 2321/00 for details relating to membrane cleaning, regeneration, sterilization or to the prevention of fouling.  
}

C B01D 65/10

  - Testing of membranes or membrane apparatus; Detecting or repairing leaks

**WARNING**  
Group B01D 65/10 is impacted by reclassification into group B01D 65/109. Groups B01D 65/10 and B01D 65/109 should be considered in order to perform a complete search.

U B01D 65/106

  - {Repairing membrane apparatus or modules}

U B01D 65/108

  - • {Repairing membranes}

N B01D 65/109

  - {Testing of membrane fouling or clogging, e.g. amount or affinity}

**WARNING**  
Group B01D 65/109 is incomplete pending reclassification of documents from group B01D 65/10. Groups B01D 65/10 and B01D 65/109 should be considered in order to perform a complete search.

**M B01D 67/00**

**Processes specially adapted for manufacturing semi-permeable membranes for separation processes or apparatus**

**NOTE**

  1. In group {When B01D 67/00 it is desirable to add classifying in this group, the indexing codes relating to membrane preparation chosen from of the following groups B01D 2323/00 – must be B01D 2323/42 added if applicable:  
• B01D 2323/00 for details relating to membrane preparation.  
}
  2. {Attention is drawn to the Note following B01D 59/50, which indicates the last place rule is not applied in B01D 67/00.}

M B01D 67/0002

  - {Organic membrane formation manufacture}

C B01D 67/0004

  - {by agglomeration of particles, e.g. sintering}

**WARNING**  
Group B01D 67/0004 is impacted by reclassification into groups B01D 67/00041, B01D 67/00042, B01D 67/00043, B01D 67/00044, B01D 67/00045 and B01D 67/00046. All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 67/00041 . . . {by sintering}  
WARNING  
 Group [B01D 67/00041](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00041](#) should be considered in order to perform a complete search.
- N B01D 67/00042 . . . {by deposition of fibres, nanofibres or nanofibrils}  
WARNING  
 Group [B01D 67/00042](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00042](#) should be considered in order to perform a complete search.
- N B01D 67/00043 . . . {by agglomeration of nanoparticles}  
WARNING  
 Group [B01D 67/00043](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00043](#) should be considered in order to perform a complete search.
- N B01D 67/00044 . . . {by plasma spraying}  
WARNING  
 Group [B01D 67/00044](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00044](#) should be considered in order to perform a complete search.
- N B01D 67/00045 . . . {by additive layer techniques, e.g. selective laser sintering [SLS], selective laser melting [SLM] or 3D printing}  
WARNING  
 Group [B01D 67/00045](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00045](#) should be considered in order to perform a complete search.
- N B01D 67/00046 . . . {by deposition by filtration through a support or base layer}  
WARNING  
 Group [B01D 67/00046](#) is incomplete pending reclassification of documents from group [B01D 67/0004](#).  
 Groups [B01D 67/0004](#) and [B01D 67/00046](#) should be considered in order to perform a complete search.
- C B01D 67/0009 . . . {by phase separation, sol-gel transition, evaporation or solvent quenching}  
WARNING  
 Group [B01D 67/0009](#) is impacted by reclassification into group [B01D 67/00091](#).  
 Groups [B01D 67/0009](#) and [B01D 67/00091](#) should be considered in order to perform a complete search.
- N B01D 67/00091 . . . {by evaporation}  
WARNING  
 Group [B01D 67/00091](#) is incomplete pending reclassification of documents from group [B01D 67/0009](#).

Groups [B01D 67/0009](#) and [B01D 67/00091](#) should be considered in order to perform a complete search.

- C B01D 67/0011 . . . {Casting solutions therefor}
- WARNING**  
Group [B01D 67/0011](#) is impacted by reclassification into groups [B01D 67/00111](#) and [B01D 67/00113](#).  
Groups [B01D 67/0011](#), [B01D 67/00111](#) and [B01D 67/00113](#) should be considered in order to perform a complete search.
- N B01D 67/00111 . . . . {Polymer pretreatment in the casting solutions}
- WARNING**  
Group [B01D 67/00111](#) is incomplete pending reclassification of documents from group [B01D 67/0011](#).  
Groups [B01D 67/0011](#) and [B01D 67/00111](#) should be considered in order to perform a complete search.
- N B01D 67/00113 . . . . {Pretreatment of the casting solutions, e.g. thermal treatment or ageing}
- WARNING**  
Group [B01D 67/00113](#) is incomplete pending reclassification of documents from group [B01D 67/0011](#).  
Groups [B01D 67/0011](#) and [B01D 67/00113](#) should be considered in order to perform a complete search.
- C B01D 67/0013 . . . {Casting processes ~~(hollow fibre membrane manufacturing methods B01D 69/08)~~}
- WARNING**  
Group [B01D 67/0013](#) is impacted by reclassification into group [B01D 67/00135](#).  
Groups [B01D 67/0013](#) and [B01D 67/00135](#) should be considered in order to perform a complete search.
- N B01D 67/00135 . . . . {Air gap characteristics}
- WARNING**  
Group [B01D 67/00135](#) is incomplete pending reclassification of documents from group [B01D 67/0013](#).  
Groups [B01D 67/0013](#) and [B01D 67/00135](#) should be considered in order to perform a complete search.
- C B01D 67/0016 . . . {Coagulation}
- WARNING**  
Group [B01D 67/0016](#) is impacted by reclassification into group [B01D 67/00165](#).  
Groups [B01D 67/0016](#) and [B01D 67/00165](#) should be considered in order to perform a complete search.
- N B01D 67/00165 . . . . {Composition of the coagulation baths}
- WARNING**  
Group [B01D 67/00165](#) is incomplete pending reclassification of documents from group [B01D 67/0016](#).  
Groups [B01D 67/0016](#) and [B01D 67/00165](#) should be considered in order to perform a complete search.
- M B01D 67/0018 . . . {Thermally induced processes [\[TIPS\]](#)}
- U B01D 67/0023 . . {by inducing porosity into non porous precursor membranes}

- C B01D 67/003 . . . {by selective elimination of components, e.g. by leaching}
- WARNING**  
 Group [B01D 67/003](#) is impacted by reclassification into group [B01D 67/0031](#).  
 Groups [B01D 67/003](#) and [B01D 67/0031](#) should be considered in order to perform a complete search.
- N B01D 67/0031 . . . . {by elimination of at least one of the blocks of a block copolymer}
- WARNING**  
 Group [B01D 67/0031](#) is incomplete pending reclassification of documents from group [B01D 67/003](#).  
 Groups [B01D 67/003](#) and [B01D 67/0031](#) should be considered in order to perform a complete search.
- M B01D 67/0032 . . . . {by elimination of segments of the ~~precurdor~~[precursor](#), e.g. nucleation-track membranes, lithography or laser methods}
- C B01D 67/0039 . {Inorganic membrane ~~formation~~[manufacture](#)}
- WARNING**  
 Group [B01D 67/0039](#) is impacted by reclassification into group [B01D 67/0049](#).  
 Groups [B01D 67/0039](#) and [B01D 67/0049](#) should be considered in order to perform a complete search.
- C B01D 67/0041 . . {by agglomeration of particles in the dry state, ~~e.g. sintering~~}
- WARNING**  
 Group [B01D 67/0041](#) is impacted by reclassification into groups [B01D 67/00411](#), [B01D 67/00412](#), [B01D 67/00413](#), [B01D 67/00414](#), [B01D 67/00415](#) and [B01D 67/00416](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 67/00411 . . . . {by sintering}
- WARNING**  
 Group [B01D 67/00411](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
 Groups [B01D 67/0041](#) and [B01D 67/00411](#) should be considered in order to perform a complete search.
- N B01D 67/00412 . . . . {by deposition of fibres, nanofibres or nanofibrils}
- WARNING**  
 Group [B01D 67/00412](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
 Groups [B01D 67/0041](#) and [B01D 67/00412](#) should be considered in order to perform a complete search.
- N B01D 67/00413 . . . . {by agglomeration of nanoparticles}
- WARNING**  
 Group [B01D 67/00413](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
 Groups [B01D 67/0041](#) and [B01D 67/00413](#) should be considered in order to perform a complete search.

- N B01D 67/00414
- • • {by plasma spraying}
- WARNING  
Group [B01D 67/00414](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
Groups [B01D 67/0041](#) and [B01D 67/00414](#) should be considered in order to perform a complete search.
- N B01D 67/00415
- • • {by additive layer techniques, e.g. selective laser sintering [SLS], selective laser melting [SLM] or 3D printing}
- WARNING  
Group [B01D 67/00415](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
Groups [B01D 67/0041](#) and [B01D 67/00415](#) should be considered in order to perform a complete search.
- N B01D 67/00416
- • • {by deposition by filtration through a support or base layer}
- WARNING  
Group [B01D 67/00416](#) is incomplete pending reclassification of documents from group [B01D 67/0041](#).  
Groups [B01D 67/0041](#) and [B01D 67/00416](#) should be considered in order to perform a complete search.
- U B01D 67/0048
- • {by sol-gel transition}
- N B01D 67/0049
- • {by evaporation}
- WARNING  
Group [B01D 67/0049](#) is incomplete pending reclassification of documents from group [B01D 67/0039](#).  
Groups [B01D 67/0039](#) and [B01D 67/0049](#) should be considered in order to perform a complete search.
- C B01D 67/0079
- {**Formation/Manufacture** of membranes comprising organic and inorganic components}
- WARNING  
Group [B01D 67/0079](#) is impacted by reclassification into groups [B01D 67/00791](#) and [B01D 67/00793](#).  
Groups [B01D 67/0079](#), [B01D 67/00791](#) and [B01D 67/00793](#) should be considered in order to perform a complete search.
- N B01D 67/00791
- • {Different components in separate layers}
- WARNING  
Group [B01D 67/00791](#) is incomplete pending reclassification of documents from group [B01D 67/0079](#).  
Groups [B01D 67/0079](#) and [B01D 67/00791](#) should be considered in order to perform a complete search.
- N B01D 67/00793
- • {Dispersing a component, e.g. as particles or powder, in another component}
- WARNING  
Group [B01D 67/00793](#) is incomplete pending reclassification of documents from group [B01D 67/0079](#).  
Groups [B01D 67/0079](#) and [B01D 67/00793](#) should be considered in order to perform a complete search.
- U B01D 67/0081
- {After-treatment of organic or inorganic membranes}
- M B01D 67/0088
- • {Physical treatment with compounds, e.g. swelling, coating or impregnation (**involving chemical reactions B01D 67/0093**)}



- C B01D 67/0093
- {Chemical modification}
- WARNING**  
Group [B01D 67/0093](#) is impacted by reclassification into groups [B01D 67/00931](#) and [B01D 67/00933](#). Groups [B01D 67/0093](#), [B01D 67/00931](#) and [B01D 67/00933](#) should be considered in order to perform a complete search.
- N B01D 67/00931
- • {by introduction of specific groups after membrane formation, e.g. by grafting}
- WARNING**  
Group [B01D 67/00931](#) is incomplete pending reclassification of documents from group [B01D 67/0093](#). Groups [B01D 67/0093](#) and [B01D 67/00931](#) should be considered in order to perform a complete search.
- N B01D 67/00933
- • • {by addition of a layer chemically bonded to the membrane}
- WARNING**  
Group [B01D 67/00933](#) is incomplete pending reclassification of documents from group [B01D 67/0093](#). Groups [B01D 67/0093](#) and [B01D 67/00933](#) should be considered in order to perform a complete search.
- M B01D 69/00**
- Semi-permeable membranes for separation processes or apparatus characterised by their form, structure or properties; Manufacturing processes specially adapted therefor**
- NOTES**
- In this group, the following term is used with the meaning indicated:
    - "properties" covers those of a mechanical, physical or chemical nature.
  - {Manufacturing processes, if considered of interest, are also classified in group [B01D 67/00](#).}
  - {Attention is drawn to the Note following [B01D 59/50](#), which indicates the last place rule is not applied in [B01D 69/00](#).}
- M B01D 69/02
- characterised by their properties
- NOTE**  
In group {When [B01D 69/02](#) it is desirable to add classifying in this group, the indexing codes relating to properties of membranes chosen from of the following groups [B01D 2325/00](#) - must be [B01D 2325/38](#) added if applicable:  
[B01D 2325/00](#) for details relating to properties of membranes.  
}
- C B01D 69/06
- Flat membranes
- WARNING**  
Group [B01D 69/06](#) is impacted by reclassification into group [B01D 69/061](#). Groups [B01D 69/06](#) and [B01D 69/061](#) should be considered in order to perform a complete search.
- N B01D 69/061
- • {Membrane bags or membrane cushions}
- WARNING**  
Group [B01D 69/061](#) is incomplete pending reclassification of documents from group [B01D 69/06](#). Groups [B01D 69/06](#) and [B01D 69/061](#) should be considered in order to perform a complete search.



- U B01D 69/08 · Hollow fibre membranes (manufacture of hollow fibres [D01D 5/24](#), [D01F 1/08](#))
- C B01D 69/087 · · {Details relating to the spinning process}
- WARNING**  
Group [B01D 69/087](#) is impacted by reclassification into group [B01D 69/0871](#). Groups [B01D 69/087](#) and [B01D 69/0871](#) should be considered in order to perform a complete search.
- N B01D 69/0871 · · · {Fibre guidance after spinning through the manufacturing apparatus}
- WARNING**  
Group [B01D 69/0871](#) is incomplete pending reclassification of documents from group [B01D 69/087](#). Groups [B01D 69/087](#) and [B01D 69/0871](#) should be considered in order to perform a complete search.
- C B01D 69/10 · Supported membranes; Membrane supports
- WARNING**  
Group [B01D 69/10](#) is impacted by reclassification into groups [B01D 69/106](#), [B01D 69/107](#), [B01D 69/1071](#) and [B01D 69/108](#). All groups listed in this Warning should be considered in order to perform a complete search.
- U B01D 69/105 · · {Support pretreatment}
- N B01D 69/106 · · {Membranes in the pores of a support, e.g. polymerized in the pores or voids}
- WARNING**  
Group [B01D 69/106](#) is incomplete pending reclassification of documents from group [B01D 69/10](#). Groups [B01D 69/10](#) and [B01D 69/106](#) should be considered in order to perform a complete search.
- N B01D 69/107 · · {Organic support material}
- WARNING**  
Groups [B01D 69/107](#) and [B01D 69/1071](#) are incomplete pending reclassification of documents from group [B01D 69/10](#). Groups [B01D 69/10](#), [B01D 69/107](#) and [B01D 69/1071](#) should be considered in order to perform a complete search.
- N B01D 69/1071 · · · {Woven, non-woven or net mesh}
- N B01D 69/108 · · {Inorganic support material}
- WARNING**  
Group [B01D 69/108](#) is incomplete pending reclassification of documents from group [B01D 69/10](#). Groups [B01D 69/10](#) and [B01D 69/108](#) should be considered in order to perform a complete search.
- C B01D 69/12 · Composite membranes; Ultra-thin membranes
- WARNING**  
Group [B01D 69/12](#) is impacted by reclassification into groups [B01D 69/1212](#), [B01D 69/1213](#), [B01D 69/1214](#), [B01D 69/1216](#) and [B01D 69/1218](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 69/1212
- {Coextruded layers}
- WARNING  
Group [B01D 69/1212](#) is incomplete pending reclassification of documents from group [B01D 69/12](#).  
Groups [B01D 69/12](#) and [B01D 69/1212](#) should be considered in order to perform a complete search.
- N B01D 69/1213
- {Laminated layers}
- WARNING  
Group [B01D 69/1213](#) is incomplete pending reclassification of documents from group [B01D 69/12](#).  
Groups [B01D 69/12](#) and [B01D 69/1213](#) should be considered in order to perform a complete search.
- N B01D 69/1214
- {Chemically bonded layers, e.g. cross-linking}
- WARNING  
Group [B01D 69/1214](#) is incomplete pending reclassification of documents from group [B01D 69/12](#).  
Groups [B01D 69/12](#) and [B01D 69/1214](#) should be considered in order to perform a complete search.
- N B01D 69/1216
- {Three or more layers}
- WARNING  
Group [B01D 69/1216](#) is incomplete pending reclassification of documents from group [B01D 69/12](#).  
Groups [B01D 69/12](#) and [B01D 69/1216](#) should be considered in order to perform a complete search.
- N B01D 69/1218
- {Layers having the same chemical composition, but different properties, e.g. pore size, molecular weight or porosity}
- WARNING  
Group [B01D 69/1218](#) is incomplete pending reclassification of documents from group [B01D 69/12](#).  
Groups [B01D 69/12](#) and [B01D 69/1218](#) should be considered in order to perform a complete search.
- C B01D 69/125
- {~~In-situ~~*In situ* manufacturing by polymerisation, polycondensation, cross-linking, ~~and/or~~ *or chemical* reaction}
- WARNING  
Group [B01D 69/125](#) is impacted by reclassification into group [B01D 69/1251](#).  
Groups [B01D 69/125](#) and [B01D 69/1251](#) should be considered in order to perform a complete search.
- N B01D 69/1251
- • {by interfacial polymerisation}
- WARNING  
Group [B01D 69/1251](#) is incomplete pending reclassification of documents from group [B01D 69/125](#).  
Groups [B01D 69/125](#) and [B01D 69/1251](#) should be considered in order to perform a complete search.
- U B01D 69/14
- Dynamic membranes

- C B01D 69/141
- {Heterogeneous membranes, e.g. containing dispersed material; Mixed matrix membranes}
- WARNING**  
 Group [B01D 69/141](#) is impacted by reclassification into groups [B01D 69/1411](#) and [B01D 69/14111](#).  
 Groups [B01D 69/141](#), [B01D 69/1411](#) and [B01D 69/14111](#) should be considered in order to perform a complete search.
- N B01D 69/1411
- • {containing dispersed material in a continuous matrix}
- WARNING**  
 Groups [B01D 69/1411](#) and [B01D 69/14111](#) are incomplete pending reclassification of documents from group [B01D 69/141](#).  
 Groups [B01D 69/141](#), [B01D 69/1411](#) and [B01D 69/14111](#) should be considered in order to perform a complete search.
- N B01D 69/14111
- • • {with nanoscale dispersed material, e.g. nanoparticles}
- M B01D 71/00**
- Semi-permeable membranes for separation processes or apparatus characterised by the material; Manufacturing processes specially adapted therefor**
- NOTES**
1. In this group, if the material is a composition it is classified according to the constituent present in **highest proportion. This constituent is classified according to the last place rule; see Note before group the highest proportion; see Note before group [B01D 61/00](#).** {This constituent is classified according to the last place rule.} If there is more than one constituent present in equal highest proportions, then each of these constituents is classified according to the last place rule.
  2. Manufacturing processes, if considered of interest, are also classified in group [B01D 67/00](#).
- C B01D 71/02
- Inorganic material
- WARNING**  
 Group [B01D 71/02](#) is impacted by reclassification into groups [B01D 71/0213](#), [B01D 71/0215](#) and [B01D 71/05](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- C B01D 71/021
- {Carbon}
- WARNING**  
 Group [B01D 71/021](#) is impacted by reclassification into groups [B01D 71/0211](#) and [B01D 71/0212](#).  
 Groups [B01D 71/021](#), [B01D 71/0211](#) and [B01D 71/0212](#) should be considered in order to perform a complete search.
- N B01D 71/0211
- • • {Graphene or derivatives thereof}
- WARNING**  
 Group [B01D 71/0211](#) is incomplete pending reclassification of documents from group [B01D 71/021](#).  
 Groups [B01D 71/021](#) and [B01D 71/0211](#) should be considered in order to perform a complete search.

- N B01D 71/0212 . . . {Carbon nanotubes}  
WARNING  
 Group [B01D 71/0212](#) is incomplete pending reclassification of documents from group [B01D 71/021](#).  
 Groups [B01D 71/021](#) and [B01D 71/0212](#) should be considered in order to perform a complete search.
- N B01D 71/0213 . . {Silicon}  
WARNING  
 Group [B01D 71/0213](#) is incomplete pending reclassification of documents from group [B01D 71/02](#).  
 Groups [B01D 71/02](#) and [B01D 71/0213](#) should be considered in order to perform a complete search.
- N B01D 71/0215 . . {Silicon carbide; Silicon nitride; Silicon oxycarbide}  
WARNING  
 Group [B01D 71/0215](#) is incomplete pending reclassification of documents from group [B01D 71/02](#).  
 Groups [B01D 71/02](#) and [B01D 71/0215](#) should be considered in order to perform a complete search.
- C B01D 71/022 . . {Metals}  
WARNING  
 Group [B01D 71/022](#) is impacted by reclassification into groups [B01D 71/0221](#), [B01D 71/0223](#), [B01D 71/02231](#), [B01D 71/02232](#) and [B01D 71/0227](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 71/0221 . . . {Group 4 or 5 metals}  
WARNING  
 Group [B01D 71/0221](#) is incomplete pending reclassification of documents from group [B01D 71/022](#).  
 Groups [B01D 71/022](#) and [B01D 71/0221](#) should be considered in order to perform a complete search.
- N B01D 71/0223 . . . {Group 8, 9 or 10 metals}  
WARNING  
 Groups [B01D 71/0223](#) - [B01D 71/02232](#) are incomplete pending reclassification of documents from group [B01D 71/022](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 71/02231 . . . . {Palladium}
- N B01D 71/02232 . . . . {Nickel}
- N B01D 71/0227 . . . {comprising an intermediate layer for avoiding intermetallic diffusion}  
WARNING  
 Group [B01D 71/0227](#) is incomplete pending reclassification of documents from group [B01D 71/022](#).  
 Groups [B01D 71/022](#) and [B01D 71/0227](#) should be considered in order to perform a complete search.

- C B01D 71/024
- • {Oxides}
- WARNING  
 Group [B01D 71/024](#) is impacted by reclassification into group [B01D 71/0271](#). Groups [B01D 71/024](#) and [B01D 71/0271](#) should be considered in order to perform a complete search.
- U B01D 71/027
- • • {Silicium oxide}
- N [B01D 71/0271](#)
- • • {Perovskites}
- WARNING  
 Group [B01D 71/0271](#) is incomplete pending reclassification of documents from group [B01D 71/024](#). Groups [B01D 71/024](#) and [B01D 71/0271](#) should be considered in order to perform a complete search.
- C B01D 71/028
- • {Molecular sieves, e.g. zeolites, silicalite ([B01D 71/021](#) takes precedence carbon [B01D 71/021](#))}
- WARNING  
 Group [B01D 71/028](#) is impacted by reclassification into group [B01D 71/0281](#). Groups [B01D 71/028](#) and [B01D 71/0281](#) should be considered in order to perform a complete search.
- N [B01D 71/0281](#)
- • • {Zeolites}
- WARNING  
 Group [B01D 71/0281](#) is incomplete pending reclassification of documents from group [B01D 71/028](#). Groups [B01D 71/028](#) and [B01D 71/0281](#) should be considered in order to perform a complete search.
- U B01D 71/04
- • Glass
- N [B01D 71/05](#)
- • {Cermets materials}
- WARNING  
 Group [B01D 71/05](#) is incomplete pending reclassification of documents from group [B01D 71/02](#). Groups [B01D 71/02](#) and [B01D 71/05](#) should be considered in order to perform a complete search.
- U B01D 71/06
- Organic material
- C B01D 71/26
- • Polyalkenes
- WARNING  
 Group [B01D 71/26](#) is impacted by reclassification into groups [B01D 71/261](#) and [B01D 71/262](#). Groups [B01D 71/26](#), [B01D 71/261](#) and [B01D 71/262](#) should be considered in order to perform a complete search.
- N [B01D 71/261](#)
- • • {Polyethylene}
- WARNING  
 Group [B01D 71/261](#) is incomplete pending reclassification of documents from group [B01D 71/26](#). Groups [B01D 71/26](#) and [B01D 71/261](#) should be considered in order to perform a complete search.

- N B01D 71/262 . . . {Polypropylene}  
WARNING  
 Group [B01D 71/262](#) is incomplete pending reclassification of documents from group [B01D 71/26](#).  
 Groups [B01D 71/26](#) and [B01D 71/262](#) should be considered in order to perform a complete search.
- C B01D 71/28 . . Polymers of vinyl aromatic compounds  
WARNING  
 Group [B01D 71/28](#) is impacted by reclassification into groups [B01D 71/281](#), [B01D 71/282](#) and [B01D 71/283](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 71/281 . . . {Polystyrene}  
WARNING  
 Group [B01D 71/281](#) is incomplete pending reclassification of documents from group [B01D 71/28](#).  
 Groups [B01D 71/28](#) and [B01D 71/281](#) should be considered in order to perform a complete search.
- N B01D 71/282 . . . {Polyvinylphenol}  
WARNING  
 Group [B01D 71/282](#) is incomplete pending reclassification of documents from group [B01D 71/28](#).  
 Groups [B01D 71/28](#) and [B01D 71/282](#) should be considered in order to perform a complete search.
- N B01D 71/283 . . . {Polyvinylpyridine}  
WARNING  
 Group [B01D 71/283](#) is incomplete pending reclassification of documents from group [B01D 71/28](#).  
 Groups [B01D 71/28](#) and [B01D 71/283](#) should be considered in order to perform a complete search.
- C B01D 71/30 . . Polyalkenyl halides  
WARNING  
 Group [B01D 71/30](#) is impacted by reclassification into group [B01D 71/301](#).  
 Groups [B01D 71/30](#) and [B01D 71/301](#) should be considered in order to perform a complete search.
- N B01D 71/301 . . . {Polyvinylchloride}  
WARNING  
 Group [B01D 71/301](#) is incomplete pending reclassification of documents from group [B01D 71/30](#).  
 Groups [B01D 71/30](#) and [B01D 71/301](#) should be considered in order to perform a complete search.
- C B01D 71/38 . . Polyalkenylalcohols; Polyalkenylesters; Polyalkenylethers;  
 Polyalkenylaldehydes; Polyalkenylketones; Polyalkenylacetals;  
 Polyalkenylketals  
WARNING  
 Group [B01D 71/38](#) is impacted by reclassification into groups [B01D 71/381](#), [B01D 71/382](#) and [B01D 71/383](#).



All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 71/381
- • • {Polyvinylalcohol}
- WARNING  
Group [B01D 71/381](#) is incomplete pending reclassification of documents from group [B01D 71/38](#).  
Groups [B01D 71/38](#) and [B01D 71/381](#) should be considered in order to perform a complete search.
- N B01D 71/382
- • • {Polyvinylethers}
- WARNING  
Group [B01D 71/382](#) is incomplete pending reclassification of documents from group [B01D 71/38](#).  
Groups [B01D 71/38](#) and [B01D 71/382](#) should be considered in order to perform a complete search.
- N B01D 71/383
- • • {Polyvinylacetates}
- WARNING  
Group [B01D 71/383](#) is incomplete pending reclassification of documents from group [B01D 71/38](#).  
Groups [B01D 71/38](#) and [B01D 71/383](#) should be considered in order to perform a complete search.
- C B01D 71/40
- • Polymers of unsaturated acids or derivatives thereof, e.g. salts, amides, imides, nitriles, anhydrides, esters
- WARNING  
Group [B01D 71/40](#) is impacted by reclassification into groups [B01D 71/401](#), [B01D 71/4011](#), [B01D 71/402](#), [B01D 71/403](#) and [B01D 71/404](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 71/401
- • • {Polymers based on the polymerisation of acrylic acid, e.g. polyacrylate}
- WARNING  
Groups [B01D 71/401](#) and [B01D 71/4011](#) are incomplete pending reclassification of documents from group [B01D 71/40](#).  
Groups [B01D 71/40](#), [B01D 71/401](#) and [B01D 71/4011](#) should be considered in order to perform a complete search.
- N B01D 71/4011
- • • • {Polymethylmethacrylate}
- N B01D 71/402
- • • {Polymers based on the polymerisation of fumaric acid or derivatives thereof}
- WARNING  
Group [B01D 71/402](#) is incomplete pending reclassification of documents from group [B01D 71/40](#).  
Groups [B01D 71/40](#) and [B01D 71/402](#) should be considered in order to perform a complete search.
- N B01D 71/403
- • • {Polymers based on the polymerisation of maleic acid or derivatives thereof}
- WARNING  
Group [B01D 71/403](#) is incomplete pending reclassification of documents from group [B01D 71/40](#).

Groups [B01D 71/40](#) and [B01D 71/403](#) should be considered in order to perform a complete search.

- N B01D 71/404
- • • {Polymers based on the polymerisation of crotonic acid}
- WARNING  
Group [B01D 71/404](#) is incomplete pending reclassification of documents from group [B01D 71/40](#).  
Groups [B01D 71/40](#) and [B01D 71/404](#) should be considered in order to perform a complete search.
- C B01D 71/42
- • • Polymers of nitriles, e.g. polyacrylonitrile
- WARNING  
Group [B01D 71/42](#) is impacted by reclassification into group [B01D 71/421](#).  
Groups [B01D 71/42](#) and [B01D 71/421](#) should be considered in order to perform a complete search.
- N B01D 71/421
- • • • {Polyacrylonitrile}
- WARNING  
Group [B01D 71/421](#) is incomplete pending reclassification of documents from group [B01D 71/42](#).  
Groups [B01D 71/42](#) and [B01D 71/421](#) should be considered in order to perform a complete search.
- C B01D 71/44
- • Polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of groups [B01D 71/26](#)-[B01D 71/42](#)
- WARNING  
Group [B01D 71/44](#) is impacted by reclassification into group [B01D 71/441](#).  
Groups [B01D 71/44](#) and [B01D 71/441](#) should be considered in order to perform a complete search.
- N B01D 71/441
- • • {Polyvinylpyrrolidone}
- WARNING  
Group [B01D 71/441](#) is incomplete pending reclassification of documents from group [B01D 71/44](#).  
Groups [B01D 71/44](#) and [B01D 71/441](#) should be considered in order to perform a complete search.
- C B01D 71/48
- • Polyesters
- WARNING  
Group [B01D 71/48](#) is impacted by reclassification into group [B01D 71/481](#).  
Groups [B01D 71/48](#) and [B01D 71/481](#) should be considered in order to perform a complete search.
- N B01D 71/481
- • • {Polyarylates}
- WARNING  
Group [B01D 71/481](#) is incomplete pending reclassification of documents from group [B01D 71/48](#).  
Groups [B01D 71/48](#) and [B01D 71/481](#) should be considered in order to perform a complete search.
- C B01D 71/52
- • Polyethers
- WARNING  
Group [B01D 71/52](#) is impacted by reclassification into groups [B01D 71/521](#), [B01D 71/5211](#), [B01D 71/522](#), [B01D 71/5221](#), [B01D 71/5222](#) and [B01D 71/5223](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 71/521

- . . . {Aliphatic polyethers}

WARNING

Groups [B01D 71/521](#) and [B01D 71/5211](#) are incomplete pending reclassification of documents from group [B01D 71/52](#).  
Groups [B01D 71/52](#), [B01D 71/521](#) and [B01D 71/5211](#) should be considered in order to perform a complete search.

N B01D 71/5211

- . . . . {Polyethylene glycol or polyethyleneoxide}

N B01D 71/522

- . . . {Aromatic polyethers}

WARNING

Groups [B01D 71/522](#) - [B01D 71/5223](#) are incomplete pending reclassification of documents from group [B01D 71/52](#).  
All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 71/5221

- . . . . {Polyaryletherketone}

N B01D 71/5222

- . . . . {Polyetherketone, polyetheretherketone, or polyaryletherketone}

N B01D 71/5223

- . . . . {Polyphenylene oxide, phenyl ether polymers or polyphenylethers}

U B01D 71/58

- . . Other polymers having nitrogen in the main chain, with or without oxygen or carbon only

C B01D 71/60

- . . . Polyamines

WARNING

Group [B01D 71/60](#) is impacted by reclassification into group [B01D 71/601](#).  
Groups [B01D 71/60](#) and [B01D 71/601](#) should be considered in order to perform a complete search.

N B01D 71/601

- . . . . {Polyethylenimine}

WARNING

Group [B01D 71/601](#) is incomplete pending reclassification of documents from group [B01D 71/60](#).  
Groups [B01D 71/60](#) and [B01D 71/601](#) should be considered in order to perform a complete search.

U B01D 71/62

- . . . Polycondensates having nitrogen-containing heterocyclic rings in the main chain

C B01D 71/64

- . . . . Polyimides; Polyamide-imides; Polyester-imides; Polyamide acids or similar polyimide precursors

WARNING

Group [B01D 71/64](#) is impacted by reclassification into groups [B01D 71/641](#), [B01D 71/642](#) and [B01D 71/643](#).  
All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 71/641

- . . . . . {Polyamide-imides}

WARNING

Group [B01D 71/641](#) is incomplete pending reclassification of documents from group [B01D 71/64](#).  
Groups [B01D 71/64](#) and [B01D 71/641](#) should be considered in order to perform a complete search.

- N B01D 71/642 . . . . {Polyester-imides}
- WARNING  
Group [B01D 71/642](#) is incomplete pending reclassification of documents from group [B01D 71/64](#).  
Groups [B01D 71/64](#) and [B01D 71/642](#) should be considered in order to perform a complete search.
- N B01D 71/643 . . . . {Polyether-imides}
- WARNING  
Group [B01D 71/643](#) is incomplete pending reclassification of documents from group [B01D 71/64](#).  
Groups [B01D 71/64](#) and [B01D 71/643](#) should be considered in order to perform a complete search.
- C B01D 71/66 . . Polymers having sulfur in the main chain, with or without nitrogen, oxygen or carbon only
- WARNING  
Group [B01D 71/66](#) is impacted by reclassification into group [B01D 71/69](#).  
Groups [B01D 71/66](#) and [B01D 71/69](#) should be considered in order to perform a complete search.
- U B01D 71/68 . . . Polysulfones; Polyethersulfones
- N B01D 71/69 . . . {Polysulfonamides}
- WARNING  
Group [B01D 71/69](#) is incomplete pending reclassification of documents from group [B01D 71/66](#).  
Groups [B01D 71/66](#) and [B01D 71/69](#) should be considered in order to perform a complete search.
- C B01D 71/70 . . Polymers having silicon in the main chain, with or without sulfur, nitrogen, oxygen or carbon only
- WARNING  
Group [B01D 71/70](#) is impacted by reclassification into groups [B01D 71/701](#) and [B01D 71/702](#).  
Groups [B01D 71/70](#), [B01D 71/701](#) and [B01D 71/702](#) should be considered in order to perform a complete search.
- N B01D 71/701 . . . {Polydimethylsiloxane}
- WARNING  
Group [B01D 71/701](#) is incomplete pending reclassification of documents from group [B01D 71/70](#).  
Groups [B01D 71/70](#) and [B01D 71/701](#) should be considered in order to perform a complete search.
- N B01D 71/702 . . . {Polysilsesquioxanes or combination of silica with bridging organosilane groups}
- WARNING  
Group [B01D 71/702](#) is incomplete pending reclassification of documents from group [B01D 71/70](#).  
Groups [B01D 71/70](#) and [B01D 71/702](#) should be considered in order to perform a complete search.

- M B01D 71/72
- • Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of the groups [B01D 71/46](#) - [B01D 71/70](#) {and [B01D 71/701](#) - [B01D 71/702](#)}
- M B01D 2311/00
- Details relating to membrane separation process operations and control**
- NOTE**
- In groups [B01D 2311/02](#)–[B01D 2311/08](#), the nature of specific operations carried out can be indexed by a combination of symbols chosen from [B01D 2311/10](#)–[B01D 2311/2696](#)
- In this group, C-sets are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the definitions of [B01D](#).*
- U B01D 2311/10
- Temperature control
- C B01D 2311/103
- • Heating
- WARNING**
- Group [B01D 2311/103](#) is impacted by reclassification into groups [B01D 2311/1031](#) and [B01D 2311/1032](#).  
Groups [B01D 2311/103](#), [B01D 2311/1031](#) and [B01D 2311/1032](#) should be considered in order to perform a complete search.
- N B01D 2311/1031
- • • Heat integration, heat recovery or reuse within an apparatus
- WARNING**
- Group [B01D 2311/1031](#) is incomplete pending reclassification of documents from group [B01D 2311/103](#).  
Groups [B01D 2311/103](#) and [B01D 2311/1031](#) should be considered in order to perform a complete search.
- N B01D 2311/1032
- • • Heating or reheating between serial separation steps
- WARNING**
- Group [B01D 2311/1032](#) is incomplete pending reclassification of documents from group [B01D 2311/103](#).  
Groups [B01D 2311/103](#) and [B01D 2311/1032](#) should be considered in order to perform a complete search.
- C B01D 2311/106
- • Cooling
- WARNING**
- Group [B01D 2311/106](#) is impacted by reclassification into group [B01D 2311/1061](#).  
Groups [B01D 2311/106](#) and [B01D 2311/1061](#) should be considered in order to perform a complete search.
- N B01D 2311/1061
- • • Cooling between serial separation steps
- WARNING**
- Group [B01D 2311/1061](#) is incomplete pending reclassification of documents from group [B01D 2311/106](#).  
Groups [B01D 2311/106](#) and [B01D 2311/1061](#) should be considered in order to perform a complete search.
- M B01D 2311/16
- **FluxFlow or flux** control
- C B01D 2311/25
- Recirculation, recycling **or bypass**, e.g. recirculation of concentrate into the feed
- WARNING**
- Group [B01D 2311/25](#) is impacted by reclassification into groups [B01D 2311/251](#), [B01D 2311/2512](#), [B01D 2311/2513](#), [B01D 2311/252](#),

*B01D 2311/2521, B01D 2311/2523, B01D 2311/253, B01D 2311/2531 and B01D 2311/2532.*

*All groups listed in this Warning should be considered in order to perform a complete search.*

N B01D 2311/251

- • Recirculation of permeate

WARNING

Groups [B01D 2311/251](#) - [B01D 2311/2513](#) are incomplete pending reclassification of documents from group [B01D 2311/25](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 2311/2512

- • • to feed side

N B01D 2311/2513

- • • to concentrate side

N B01D 2311/252

- • Recirculation of concentrate

WARNING

Groups [B01D 2311/252](#) - [B01D 2311/2523](#) are incomplete pending reclassification of documents from group [B01D 2311/25](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 2311/2521

- • • to permeate side

N B01D 2311/2523

- • • to feed side

N B01D 2311/253

- • Bypassing of feed

WARNING

Groups [B01D 2311/253](#) - [B01D 2311/2532](#) are incomplete pending reclassification of documents from group [B01D 2311/25](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B01D 2311/2531

- • • to permeate side

N B01D 2311/2532

- • • to concentrate side

C B01D 2311/26

- Further operations combined with membrane separation ~~precesses~~processes

WARNING

Group [B01D 2311/26](#) is impacted by reclassification into groups [B01D 2311/2643](#), [B01D 2311/2674](#), [B01D 2311/2697](#), [B01D 2311/2698](#) and [B01D 2311/2699](#).

All groups listed in this Warning should be considered in order to perform a complete search.

U B01D 2311/2642

- • Aggregation, sedimentation, flocculation, precipitation or coagulation

N B01D 2311/2643

- • Crystallisation

WARNING

Group [B01D 2311/2643](#) is incomplete pending reclassification of documents from group [B01D 2311/26](#).

Groups [B01D 2311/26](#) and [B01D 2311/2643](#) should be considered in order to perform a complete search.

U B01D 2311/2673

- • Evaporation

N B01D 2311/2674

- • Condensation

WARNING

Group [B01D 2311/2674](#) is incomplete pending reclassification of documents from group [B01D 2311/26](#).



Groups [B01D 2311/26](#) and [B01D 2311/2674](#) should be considered in order to perform a complete search.

U B01D 2311/2696 • • Catalytic reactions

N B01D 2311/2697 • • Chromatography

**WARNING**

Group [B01D 2311/2697](#) is incomplete pending reclassification of documents from group [B01D 2311/26](#).

Groups [B01D 2311/26](#) and [B01D 2311/2697](#) should be considered in order to perform a complete search.

N B01D 2311/2698 • • Compression

**WARNING**

Group [B01D 2311/2698](#) is incomplete pending reclassification of documents from group [B01D 2311/26](#).

Groups [B01D 2311/26](#) and [B01D 2311/2698](#) should be considered in order to perform a complete search.

N B01D 2311/2699 • • Drying

**WARNING**

Group [B01D 2311/2699](#) is incomplete pending reclassification of documents from group [B01D 2311/26](#).

Groups [B01D 2311/26](#) and [B01D 2311/2699](#) should be considered in order to perform a complete search.

**C B01D 2313/00 Details relating to membrane modules or apparatus**

**WARNING**

Group [B01D 2313/00](#) is impacted by reclassification into groups [B01D 2313/60](#), [B01D 2313/62](#), [B01D 2313/64](#), [B01D 2313/66](#), [B01D 2313/68](#), [B01D 2313/70](#), [B01D 2313/701](#) and [B01D 2313/702](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B01D 2313/04 • Specific sealing means

**WARNING**

Group [B01D 2313/04](#) is impacted by reclassification into groups [B01D 2313/041](#) and [B01D 2313/042](#).

Groups [B01D 2313/04](#), [B01D 2313/041](#) and [B01D 2313/042](#) should be considered in order to perform a complete search.

N B01D 2313/041 • • Gaskets or O-rings

**WARNING**

Group [B01D 2313/041](#) is incomplete pending reclassification of documents from group [B01D 2313/04](#).

Groups [B01D 2313/04](#) and [B01D 2313/041](#) should be considered in order to perform a complete search.

N B01D 2313/042 • • Adhesives or glues

**WARNING**

Group [B01D 2313/042](#) is incomplete pending reclassification of documents from group [B01D 2313/04](#).

Groups [B01D 2313/04](#) and [B01D 2313/042](#) should be considered in order to perform a complete search.

- C B01D 2313/13 • Specific connectors

**WARNING**

Group [B01D 2313/13](#) is impacted by reclassification into group [B01D 2313/131](#).

Groups [B01D 2313/13](#) and [B01D 2313/131](#) should be considered in order to perform a complete search.

- N B01D 2313/131 • • Quick connectors or quick-fit

**WARNING**

Group [B01D 2313/131](#) is incomplete pending reclassification of documents from group [B01D 2313/13](#).

Groups [B01D 2313/13](#) and [B01D 2313/131](#) should be considered in order to perform a complete search.

- C B01D 2313/20 • Specific housing

**WARNING**

Group [B01D 2313/20](#) is impacted by reclassification into groups [B01D 2313/201](#), [B01D 2313/2011](#), [B01D 2313/203](#), [B01D 2313/2031](#), [B01D 2313/205](#), [B01D 2313/206](#), [B01D 2313/2061](#), [B01D 2313/2062](#) and [B01D 2313/208](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 2313/201 • • Closed housing, vessels or containers

**WARNING**

Groups [B01D 2313/201](#) and [B01D 2313/2011](#) are incomplete pending reclassification of documents from group [B01D 2313/20](#).

Groups [B01D 2313/20](#), [B01D 2313/201](#) and [B01D 2313/2011](#) should be considered in order to perform a complete search.

- N B01D 2313/2011 • • • Pressure vessels

- N B01D 2313/203 • • Open housings

**WARNING**

Groups [B01D 2313/203](#) and [B01D 2313/2031](#) are incomplete pending reclassification of documents from group [B01D 2313/20](#).

Groups [B01D 2313/20](#), [B01D 2313/203](#) and [B01D 2313/2031](#) should be considered in order to perform a complete search.

- N B01D 2313/2031 • • • Frame or cage-like structures

- N B01D 2313/205 • • characterised by the shape

**WARNING**

Group [B01D 2313/205](#) is incomplete pending reclassification of documents from group [B01D 2313/20](#).

Groups [B01D 2313/20](#) and [B01D 2313/205](#) should be considered in order to perform a complete search.

- N B01D 2313/206 • • characterised by the material

**WARNING**

Groups [B01D 2313/206](#) - [B01D 2313/2062](#) are incomplete pending reclassification of documents from group [B01D 2313/20](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 2313/2061 • • • Organic, e.g. polymeric material

- N B01D 2313/2062     • • • Inorganic material
- N B01D 2313/208     • • Resilient or flexible housing walls, e.g. bags or foils
- WARNING  
Group [B01D 2313/208](#) is incomplete pending reclassification of documents from group [B01D 2313/20](#).  
Groups [B01D 2313/20](#) and [B01D 2313/208](#) should be considered in order to perform a complete search.
- C B01D 2313/22     • **Specific cooling**Cooling or heating elements
- WARNING  
Group [B01D 2313/22](#) is impacted by reclassification into group [B01D 2313/221](#).  
Groups [B01D 2313/22](#) and [B01D 2313/221](#) should be considered in order to perform a complete search.
- N B01D 2313/221     • • Heat exchangers
- WARNING  
Group [B01D 2313/221](#) is incomplete pending reclassification of documents from group [B01D 2313/22](#).  
Groups [B01D 2313/22](#) and [B01D 2313/221](#) should be considered in order to perform a complete search.
- C B01D 2313/36     • Energy sources
- WARNING  
Group [B01D 2313/36](#) is impacted by reclassification into group [B01D 2313/367](#).  
Groups [B01D 2313/36](#) and [B01D 2313/367](#) should be considered in order to perform a complete search.
- U B01D 2313/365     • • Electrical sources
- N B01D 2313/367     • • Renewable energy sources, e.g. wind or solar sources
- WARNING  
Group [B01D 2313/367](#) is incomplete pending reclassification of documents from group [B01D 2313/36](#).  
Groups [B01D 2313/36](#) and [B01D 2313/367](#) should be considered in order to perform a complete search.
- D B01D 2313/38     • Heat exchangers  
<administratively transferred to [B01D 2313/221](#) ADD>
- C B01D 2313/50     • Specific extra **reservoirs**tanks
- WARNING  
Group [B01D 2313/50](#) is impacted by reclassification into groups [B01D 2313/501](#) and [B01D 2313/502](#).  
Groups [B01D 2313/50](#), [B01D 2313/501](#) and [B01D 2313/502](#) should be considered in order to perform a complete search.
- N B01D 2313/501     • • Permeate storage tanks
- WARNING  
Group [B01D 2313/501](#) is incomplete pending reclassification of documents from group [B01D 2313/50](#).  
Groups [B01D 2313/50](#) and [B01D 2313/501](#) should be considered in order to perform a complete search.

- N B01D 2313/502
- Concentrate storage tanks
- WARNING  
Group [B01D 2313/502](#) is incomplete pending reclassification of documents from group [B01D 2313/50](#).  
Groups [B01D 2313/50](#) and [B01D 2313/502](#) should be considered in order to perform a complete search.
- C B01D 2313/56
- Specific mechanisms for loading the membrane in a module
- WARNING  
Group [B01D 2313/56](#) is impacted by reclassification into group [B01D 2313/57](#).  
Groups [B01D 2313/56](#) and [B01D 2313/57](#) should be considered in order to perform a complete search.
- N B01D 2313/57
- Tools used for removal of membranes
- WARNING  
Group [B01D 2313/57](#) is incomplete pending reclassification of documents from group [B01D 2313/56](#).  
Groups [B01D 2313/56](#) and [B01D 2313/57](#) should be considered in order to perform a complete search.
- M B01D 2313/58
- Parts of membrane modules specifically adapted **to for** single use
- N B01D 2313/60
- Specific sensors or sensor arrangements
- WARNING  
Group [B01D 2313/60](#) is incomplete pending reclassification of documents from groups [B01D 2313/00](#) and [B01D 2313/90](#).  
Groups [B01D 2313/00](#), [B01D 2313/90](#) and [B01D 2313/60](#) should be considered in order to perform a complete search.
- N B01D 2313/62
- Displays
- WARNING  
Group [B01D 2313/62](#) is incomplete pending reclassification of documents from groups [B01D 2313/00](#) and [B01D 2313/90](#).  
Groups [B01D 2313/00](#), [B01D 2313/90](#) and [B01D 2313/62](#) should be considered in order to perform a complete search.
- N B01D 2313/64
- Bar codes; Data storage means; RFID
- WARNING  
Group [B01D 2313/64](#) is incomplete pending reclassification of documents from group [B01D 2313/00](#).  
Groups [B01D 2313/00](#) and [B01D 2313/64](#) should be considered in order to perform a complete search.
- N B01D 2313/66
- Biodegradability of parts of the module
- WARNING  
Group [B01D 2313/66](#) is incomplete pending reclassification of documents from group [B01D 2313/00](#).  
Groups [B01D 2313/00](#) and [B01D 2313/66](#) should be considered in order to perform a complete search.
- N B01D 2313/68
- Biocompatibility of parts of the module
- WARNING  
Group [B01D 2313/68](#) is incomplete pending reclassification of documents from group [B01D 2313/00](#).

Groups [B01D 2313/00](#) and [B01D 2313/68](#) should be considered in order to perform a complete search.

- N B01D 2313/70
- Control means using a programmable logic controller [PLC] or a computer
- WARNING  
Groups [B01D 2313/70](#) - [B01D 2313/702](#) are incomplete pending reclassification of documents from groups [B01D 2313/00](#) and [B01D 2313/90](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 2313/701
- comprising a software program or a logic diagram
- N B01D 2313/702
- comprising telecommunication features, e.g. modems or antennas
- C B01D 2313/90
- **Other integrated auxiliary systems** Additional auxiliary systems integrated with the module or apparatus

WARNING  
Group [B01D 2313/90](#) is impacted by reclassification into groups [B01D 2313/60](#), [B01D 2313/62](#), [B01D 2313/70](#), [B01D 2313/701](#), [B01D 2313/702](#), [B01D 2313/901](#), [B01D 2313/902](#) and [B01D 2313/903](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N B01D 2313/901
- Integrated prefilter
- WARNING  
Group [B01D 2313/901](#) is incomplete pending reclassification of documents from group [B01D 2313/90](#). Groups [B01D 2313/90](#) and [B01D 2313/901](#) should be considered in order to perform a complete search.

- N B01D 2313/902
- Integrated cleaning device
- WARNING  
Group [B01D 2313/902](#) is incomplete pending reclassification of documents from group [B01D 2313/90](#). Groups [B01D 2313/90](#) and [B01D 2313/902](#) should be considered in order to perform a complete search.

- N B01D 2313/903
- Integrated control or detection device
- WARNING  
Group [B01D 2313/903](#) is incomplete pending reclassification of documents from group [B01D 2313/90](#). Groups [B01D 2313/90](#) and [B01D 2313/903](#) should be considered in order to perform a complete search.

**C B01D 2315/00 Details relating to the membrane module operation**

WARNING  
Group [B01D 2315/00](#) is impacted by reclassification into groups [B01D 2315/17](#), [B01D 2315/22](#) and [B01D 2315/24](#). All groups listed in this Warning should be considered in order to perform a complete search.

- U B01D 2315/16
- Diafiltration

- N B01D 2315/17
- Depth filtration, asymmetric membranes arranged with wider pore size side towards feed
- WARNING  
Group [B01D 2315/17](#) is incomplete pending reclassification of documents from group [B01D 2315/00](#).  
Groups [B01D 2315/00](#) and [B01D 2315/17](#) should be considered in order to perform a complete search.
- U B01D 2315/20
- Operation control schemes defined by a periodically repeated sequence comprising filtration cycles combined with cleaning or gas supply, e.g. aeration
- N B01D 2315/22
- Membrane contactor
- WARNING  
Group [B01D 2315/22](#) is incomplete pending reclassification of documents from group [B01D 2315/00](#).  
Groups [B01D 2315/00](#) and [B01D 2315/22](#) should be considered in order to perform a complete search.
- N B01D 2315/24
- Counter-current operation
- WARNING  
Group [B01D 2315/24](#) is incomplete pending reclassification of documents from group [B01D 2315/00](#).  
Groups [B01D 2315/00](#) and [B01D 2315/24](#) should be considered in order to perform a complete search.
- M B01D 2317/00
- Membrane module arrangements within a plant or an apparatus (~~membrane assemblies within one housing B01D 2319/00~~)**
- M B01D 2319/00
- Membrane assemblies within one housing (~~module or elements arrangements within a plant or an apparatus B01D 2317/00~~)**
- C B01D 2321/00
- Details relating to membrane cleaning, regeneration, sterilization or to the prevention of fouling**
- WARNING  
Group [B01D 2321/00](#) is impacted by reclassification into groups [B01D 2321/281](#), [B01D 2321/282](#), [B01D 2321/35](#), [B01D 2321/42](#) and [B01D 2321/44](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C B01D 2321/16
- Use of chemical agents
- WARNING  
Group [B01D 2321/16](#) is impacted by reclassification into group [B01D 2321/167](#).  
Groups [B01D 2321/16](#) and [B01D 2321/167](#) should be considered in order to perform a complete search.
- U B01D 2321/166
- Use of enzymatic agents
- N B01D 2321/167
- Use of scale inhibitors
- WARNING  
Group [B01D 2321/167](#) is incomplete pending reclassification of documents from group [B01D 2321/16](#).  
Groups [B01D 2321/16](#) and [B01D 2321/167](#) should be considered in order to perform a complete search.
- U B01D 2321/20
- By influencing the flow



- D B01D 2321/2091
- using movable bodies, e.g. foam balls  
<administratively transferred to [B01D 65/04](#)>
- M B01D 2321/28
- **Byby** soaking or impregnating
- N B01D 2321/281
- *by applying a special coating to the membrane or to any module element*
- WARNING**  
Group [B01D 2321/281](#) is incomplete pending reclassification of documents from group [B01D 2321/00](#).  
Groups [B01D 2321/00](#) and [B01D 2321/281](#) should be considered in order to perform a complete search.
- N B01D 2321/282
- *by spray flush or jet flush*
- WARNING**  
Group [B01D 2321/282](#) is incomplete pending reclassification of documents from group [B01D 2321/00](#).  
Groups [B01D 2321/00](#) and [B01D 2321/282](#) should be considered in order to perform a complete search.
- U B01D 2321/34
- by radiation
- M B01D 2321/346
- **Byby** gamma radiation
- N B01D 2321/35
- with acoustic waves
- WARNING**  
Group [B01D 2321/35](#) is incomplete pending reclassification of documents from group [B01D 2321/00](#).  
Groups [B01D 2321/00](#) and [B01D 2321/35](#) should be considered in order to perform a complete search.
- U B01D 2321/40
- Automatic control of cleaning processes
- N B01D 2321/42
- Chemical regeneration
- WARNING**  
Group [B01D 2321/42](#) is incomplete pending reclassification of documents from group [B01D 2321/00](#).  
Groups [B01D 2321/00](#) and [B01D 2321/42](#) should be considered in order to perform a complete search.
- N B01D 2321/44
- Specific cleaning apparatus
- WARNING**  
Group [B01D 2321/44](#) is incomplete pending reclassification of documents from group [B01D 2321/00](#).  
Groups [B01D 2321/00](#) and [B01D 2321/44](#) should be considered in order to perform a complete search.
- C B01D 2323/00**
- Details relating to membrane preparation**
- WARNING**  
Group [B01D 2323/00](#) is impacted by reclassification into groups [B01D 2323/15](#), [B01D 2323/216](#), [B01D 2323/217](#), [B01D 2323/218](#), [B01D 2323/2181](#), [B01D 2323/21811](#), [B01D 2323/21813](#), [B01D 2323/21815](#), [B01D 2323/21817](#), [B01D 2323/21819](#), [B01D 2323/2182](#), [B01D 2323/21821](#), [B01D 2323/21822](#), [B01D 2323/21823](#), [B01D 2323/21824](#), [B01D 2323/21825](#), [B01D 2323/21826](#), [B01D 2323/21827](#), [B01D 2323/21828](#), [B01D 2323/21829](#), [B01D 2323/2183](#), [B01D 2323/21831](#), [B01D 2323/21832](#), [B01D 2323/21833](#), [B01D 2323/21834](#), [B01D 2323/21835](#), [B01D 2323/21836](#), [B01D 2323/21837](#), [B01D 2323/21838](#), [B01D 2323/21839](#), [B01D 2323/2185](#), [B01D 2323/2187](#), [B01D 2323/2189](#), [B01D 2323/219](#), [B01D 2323/226](#), [B01D 2323/52](#), [B01D 2323/54](#), [B01D 2323/56](#),

*B01D 2323/58, B01D 2323/60, B01D 2323/62, B01D 2323/64 and B01D 2323/66.*

*All groups listed in this Warning should be considered in order to perform a complete search.*

C B01D 2323/08

- Specific temperatures applied

**WARNING**

*Group B01D 2323/08 is impacted by reclassification into groups B01D 2323/081 and B01D 2323/082.*

*Groups B01D 2323/08, B01D 2323/081 and B01D 2323/082 should be considered in order to perform a complete search.*

N B01D 2323/081

- Heating

**WARNING**

*Group B01D 2323/081 is incomplete pending reclassification of documents from group B01D 2323/08.*

*Groups B01D 2323/08 and B01D 2323/081 should be considered in order to perform a complete search.*

N B01D 2323/082

- Cooling

**WARNING**

*Group B01D 2323/082 is incomplete pending reclassification of documents from group B01D 2323/08.*

*Groups B01D 2323/08 and B01D 2323/082 should be considered in order to perform a complete search.*

M B01D 2323/14

- Aging/Ageing features

N B01D 2323/15

- Use of additives

**WARNING**

*Group B01D 2323/15 is incomplete pending reclassification of documents from group B01D 2323/00.*

*Groups B01D 2323/00 and B01D 2323/15 should be considered in order to perform a complete search.*

M B01D 2323/16

- Use of swelling Swelling agents

M B01D 2323/18

- Use of pore Pore-control agents or pore formers

M B01D 2323/20

- Use of plasticizers Plasticizers

M B01D 2323/21

- Use of fillers Fillers

N B01D 2323/216

- Surfactants

**WARNING**

*Group B01D 2323/216 is incomplete pending reclassification of documents from group B01D 2323/00.*

*Groups B01D 2323/00 and B01D 2323/216 should be considered in order to perform a complete search.*

N B01D 2323/217

- Emulgator or emulsion/foam forming agents

**WARNING**

*Group B01D 2323/217 is incomplete pending reclassification of documents from group B01D 2323/00.*

*Groups B01D 2323/00 and B01D 2323/217 should be considered in order to perform a complete search.*

- N B01D 2323/218      • • Additive materials  
WARNING  
Group [B01D 2323/218](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/218](#) should be considered in order to perform a complete search.
- N B01D 2323/2181      • • • Inorganic additives  
WARNING  
Group [B01D 2323/2181](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/2181](#) should be considered in order to perform a complete search.
- N B01D 2323/21811      • • • • Metals  
WARNING  
Group [B01D 2323/21811](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21811](#) should be considered in order to perform a complete search.
- N B01D 2323/21813      • • • • Metal oxides  
WARNING  
Group [B01D 2323/21813](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21813](#) should be considered in order to perform a complete search.
- N B01D 2323/21815      • • • • Acids  
WARNING  
Group [B01D 2323/21815](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21815](#) should be considered in order to perform a complete search.
- N B01D 2323/21817      • • • • Salts  
WARNING  
Group [B01D 2323/21817](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21817](#) should be considered in order to perform a complete search.
- N B01D 2323/21819      • • • • Carbon, carbon nanotubes, graphene or derivatives thereof  
WARNING  
Group [B01D 2323/21819](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21819](#) should be considered in order to perform a complete search.
- N B01D 2323/2182      • • • Organic additives  
WARNING  
Group [B01D 2323/2182](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/2182](#) should be considered in order to perform a complete search.

N B01D 2323/21821 . . . . Alkanes

WARNING

Group [B01D 2323/21821](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21821](#) should be considered in order to perform a complete search.

N B01D 2323/21822 . . . . Alkenes

WARNING

Group [B01D 2323/21822](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21822](#) should be considered in order to perform a complete search.

N B01D 2323/21823 . . . . Alcohols or hydroxydes, e.g. ethanol, glycerol or phenol

WARNING

Group [B01D 2323/21823](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21823](#) should be considered in order to perform a complete search.

N B01D 2323/21824 . . . . Aldehydes

WARNING

Group [B01D 2323/21824](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21824](#) should be considered in order to perform a complete search.

N B01D 2323/21825 . . . . Ketones

WARNING

Group [B01D 2323/21825](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21825](#) should be considered in order to perform a complete search.

N B01D 2323/21826 . . . . Acids, e.g. acetic acid

WARNING

Group [B01D 2323/21826](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21826](#) should be considered in order to perform a complete search.

N B01D 2323/21827 . . . . Salts

WARNING

Group [B01D 2323/21827](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21827](#) should be considered in order to perform a complete search.

- N B01D 2323/21828 . . . . Ammonium Salts  
WARNING  
Group [B01D 2323/21828](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21828](#) should be considered in order to perform a complete search.
- N B01D 2323/21829 . . . . Acrylates  
WARNING  
Group [B01D 2323/21829](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21829](#) should be considered in order to perform a complete search.
- N B01D 2323/2183 . . . . Ethers  
WARNING  
Group [B01D 2323/2183](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/2183](#) should be considered in order to perform a complete search.
- N B01D 2323/21831 . . . . Cyclic ethers comprising heterocyclic O-Ring  
WARNING  
Group [B01D 2323/21831](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21831](#) should be considered in order to perform a complete search.
- N B01D 2323/21832 . . . . Cyclic ethers comprising aromatic heterocyclic O-Ring  
WARNING  
Group [B01D 2323/21832](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21832](#) should be considered in order to perform a complete search.
- N B01D 2323/21833 . . . . Esters  
WARNING  
Group [B01D 2323/21833](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21833](#) should be considered in order to perform a complete search.
- N B01D 2323/21834 . . . . Amines  
WARNING  
Group [B01D 2323/21834](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/21834](#) should be considered in order to perform a complete search.
- N B01D 2323/21835 . . . . Cyclic amines comprising heterocyclic N-Ring, e.g. pyridine  
WARNING  
Group [B01D 2323/21835](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/21835](#) should be considered in order to perform a complete search.

N B01D 2323/21836 . . . . Cyclic amines comprising aromatic heterocyclic N-Ring

WARNING

Group [B01D 2323/21836](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/21836](#) should be considered in order to perform a complete search.

N B01D 2323/21837 . . . . Amides

WARNING

Group [B01D 2323/21837](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/21837](#) should be considered in order to perform a complete search.

N B01D 2323/21838 . . . . Imides

WARNING

Group [B01D 2323/21838](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/21838](#) should be considered in order to perform a complete search.

N B01D 2323/21839 . . . . Polymeric additives

WARNING

Group [B01D 2323/21839](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/21839](#) should be considered in order to perform a complete search.

N B01D 2323/2185 . . . . Polyethylene glycol

WARNING

Group [B01D 2323/2185](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/2185](#) should be considered in order to perform a complete search.

N B01D 2323/2187 . . . . Polyvinylpyrrolidone

WARNING

Group [B01D 2323/2187](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/2187](#) should be considered in order to perform a complete search.

N B01D 2323/2189 . . . Metal-organic compounds or complexes

WARNING

Group [B01D 2323/2189](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).

Groups [B01D 2323/00](#) and [B01D 2323/2189](#) should be considered in order to perform a complete search.



- N B01D 2323/219
- Specific solvent system
- WARNING  
Group [B01D 2323/219](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/219](#) should be considered in order to perform a complete search.
- M B01D 2323/22
- Use of Specific non-solvents or non-solvent system
- U B01D 2323/225
- Use of supercritical fluids
- N B01D 2323/226
- Use of ionic liquids
- WARNING  
Group [B01D 2323/226](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/226](#) should be considered in order to perform a complete search.
- U B01D 2323/50
- Control of the membrane preparation process
- N B01D 2323/52
- Use of a mould
- WARNING  
Group [B01D 2323/52](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/52](#) should be considered in order to perform a complete search.
- N B01D 2323/54
- Recycling of scrap material from production process or membrane fragments
- WARNING  
Group [B01D 2323/54](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/54](#) should be considered in order to perform a complete search.
- N B01D 2323/56
- Use of ultrasound
- WARNING  
Group [B01D 2323/56](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/56](#) should be considered in order to perform a complete search.
- N B01D 2323/58
- Fusion; Welding
- WARNING  
Group [B01D 2323/58](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/58](#) should be considered in order to perform a complete search.
- N B01D 2323/60
- Co-casting; Co-extrusion
- WARNING  
Group [B01D 2323/60](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/60](#) should be considered in order to perform a complete search.

- N B01D 2323/62
- Cutting the membrane
- WARNING  
Group [B01D 2323/62](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/62](#) should be considered in order to perform a complete search.
- N B01D 2323/64
- Use of a temporary support
- WARNING  
Group [B01D 2323/64](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/64](#) should be considered in order to perform a complete search.
- N B01D 2323/66
- Avoiding penetration into pores of support of further porous layer with fluid or counter-pressure
- WARNING  
Group [B01D 2323/66](#) is incomplete pending reclassification of documents from group [B01D 2323/00](#).  
Groups [B01D 2323/00](#) and [B01D 2323/66](#) should be considered in order to perform a complete search.
- C B01D 2325/00
- Details relating to properties of membranes**
- WARNING  
Group [B01D 2325/00](#) is impacted by reclassification into groups [B01D 2325/39](#), [B01D 2325/43](#), [B01D 2325/50](#), [B01D 2325/52](#), [B01D 2325/54](#), [B01D 2325/56](#) and [B01D 2325/58](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C B01D 2325/02
- Details relating to pores or ~~porosity~~ porosity of the membranes
- WARNING  
Group [B01D 2325/02](#) is impacted by reclassification into groups [B01D 2325/0281](#), [B01D 2325/0282](#), [B01D 2325/0283](#), [B01D 2325/02831](#), [B01D 2325/02832](#), [B01D 2325/02833](#) and [B01D 2325/02834](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C B01D 2325/021
- • ~~Characteristic pore~~ Pore shapes
- WARNING  
Group [B01D 2325/021](#) is impacted by reclassification into groups [B01D 2325/0212](#) and [B01D 2325/0214](#).  
Groups [B01D 2325/021](#), [B01D 2325/0212](#) and [B01D 2325/0214](#) should be considered in order to perform a complete search.
- N B01D 2325/0212
- • • Symmetric or isoporous membranes
- WARNING  
Group [B01D 2325/0212](#) is incomplete pending reclassification of documents from group [B01D 2325/021](#).  
Groups [B01D 2325/021](#) and [B01D 2325/0212](#) should be considered in order to perform a complete search.

- N B01D 2325/0214
- • • Tapered pores
- WARNING  
Group [B01D 2325/0214](#) is incomplete pending reclassification of documents from group [B01D 2325/021](#).  
Groups [B01D 2325/021](#) and [B01D 2325/0214](#) should be considered in order to perform a complete search.
- C B01D 2325/022
- • Asymmetric membranes
- WARNING  
Group [B01D 2325/022](#) is impacted by reclassification into groups [B01D 2325/0231](#), [B01D 2325/0232](#) and [B01D 2325/0233](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- U B01D 2325/023
- • • Dense layer within the membrane
- N B01D 2325/0231
- • • Dense layers being placed on the outer side of the cross-section
- WARNING  
Group [B01D 2325/0231](#) is incomplete pending reclassification of documents from group [B01D 2325/022](#).  
Groups [B01D 2325/022](#) and [B01D 2325/0231](#) should be considered in order to perform a complete search.
- N B01D 2325/0232
- • • Dense layer on both outer sides of the membrane
- WARNING  
Group [B01D 2325/0232](#) is incomplete pending reclassification of documents from group [B01D 2325/022](#).  
Groups [B01D 2325/022](#) and [B01D 2325/0232](#) should be considered in order to perform a complete search.
- N B01D 2325/0233
- • • with clearly distinguishable layers
- WARNING  
Group [B01D 2325/0233](#) is incomplete pending reclassification of documents from group [B01D 2325/022](#).  
Groups [B01D 2325/022](#) and [B01D 2325/0233](#) should be considered in order to perform a complete search.
- U B01D 2325/028
- • Microfluidic pore structures
- N B01D 2325/0281
- • Fibril, or microfibril structures
- WARNING  
Group [B01D 2325/0281](#) is incomplete pending reclassification of documents from group [B01D 2325/02](#).  
Groups [B01D 2325/02](#) and [B01D 2325/0281](#) should be considered in order to perform a complete search.
- N B01D 2325/0282
- • Dynamic pores-stimuli responsive membranes, e.g. thermoresponsive or pH-responsive
- WARNING  
Group [B01D 2325/0282](#) is incomplete pending reclassification of documents from group [B01D 2325/02](#).  
Groups [B01D 2325/02](#) and [B01D 2325/0282](#) should be considered in order to perform a complete search.

- N B01D 2325/0283
- • Pore size
- WARNING  
Groups [B01D 2325/0283](#) - [B01D 2325/02834](#) are incomplete pending reclassification of documents from group [B01D 2325/02](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N B01D 2325/02831
- • • less than 1 nm
- N B01D 2325/02832
- • • 1-10 nm
- N B01D 2325/02833
- • • more than 10 and up to 100 nm
- N B01D 2325/02834
- • • more than 0.1 and up to 1  $\mu\text{m}$
- C B01D 2325/34
- Molecular weight or degree of **polymerization****polymerisation**
- WARNING  
Group [B01D 2325/34](#) is impacted by reclassification into group [B01D 2325/341](#).  
Groups [B01D 2325/34](#) and [B01D 2325/341](#) should be considered in order to perform a complete search.
- N B01D 2325/341
- • At least two polymers of same structure but different molecular weight
- WARNING  
Group [B01D 2325/341](#) is incomplete pending reclassification of documents from group [B01D 2325/34](#).  
Groups [B01D 2325/34](#) and [B01D 2325/341](#) should be considered in order to perform a complete search.
- U B01D 2325/38
- Hydrophobic membranes
- N B01D 2325/39
- Amphiphilic membranes
- WARNING  
Group [B01D 2325/39](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).  
Groups [B01D 2325/00](#) and [B01D 2325/39](#) should be considered in order to perform a complete search.
- U B01D 2325/42
- Ion-exchange membranes
- N B01D 2325/43
- Specific optical properties
- WARNING  
Group [B01D 2325/43](#) is incomplete pending reclassification of documents from groups [B01D 2325/00](#) and [B01D 2325/44](#).  
Groups [B01D 2325/00](#), [B01D 2325/44](#) and [B01D 2325/43](#) should be considered in order to perform a complete search.
- C B01D 2325/44
- **Transmission of light****Specific light transmission**
- WARNING  
Group [B01D 2325/44](#) is impacted by reclassification into group [B01D 2325/43](#).  
Groups [B01D 2325/44](#) and [B01D 2325/43](#) should be considered in order to perform a complete search.
- U B01D 2325/48
- Antimicrobial properties
- N B01D 2325/50
- Membrane in gel form
- WARNING  
Group [B01D 2325/50](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).

Groups [B01D 2325/00](#) and [B01D 2325/50](#) should be considered in order to perform a complete search.

N B01D 2325/52

· Crystallinity

WARNING

Group [B01D 2325/52](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).

Groups [B01D 2325/00](#) and [B01D 2325/52](#) should be considered in order to perform a complete search.

N B01D 2325/54

· Interpenetration relationship between layers in supported or composite membranes

WARNING

Group [B01D 2325/54](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).

Groups [B01D 2325/00](#) and [B01D 2325/54](#) should be considered in order to perform a complete search.

N B01D 2325/56

· Biodegradability of membrane

WARNING

Group [B01D 2325/56](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).

Groups [B01D 2325/00](#) and [B01D 2325/56](#) should be considered in order to perform a complete search.

N B01D 2325/58

· Biocompatibility of membrane

WARNING

Group [B01D 2325/58](#) is incomplete pending reclassification of documents from group [B01D 2325/00](#).

Groups [B01D 2325/00](#) and [B01D 2325/58](#) should be considered in order to perform a complete search.

### Project: RP10455 (B03C)

M B03C 9/00

Electrostatic separation not provided for in **a single preceding main group any single one of the other main groups of this subclass**

### Project: RP10455 (B07C)

B07C 1/00  
- ~~B07C 9/00~~  
~~B07C 99/00~~

Postal sorting; Similar sorting of documents, e.g. cheques (tube mail systems [B65G 51/04](#); sorting information records, e.g. punched cards, [G06F 7/10](#))

U B07C 5/00

Sorting according to a characteristic or feature of the articles or material being sorted, e.g. by control effected by devices which detect or measure such characteristic or feature; Sorting by manually actuated devices, e.g. switches (sorting by hand only [B07C 7/00](#); separating solids from solids by sieving, screening, or sifting or by using gas currents or other separating by dry methods applicable to bulk material [B07B](#))

U B07C 5/04

· Sorting according to size {(sorting devices as a component of the automatic supply and removal of workpieces [B23Q 7/12](#))}

B07C 5/12

· characterised by the application to particular articles, not otherwise provided for ({~~B07C 9/00~~~~B07C 99/00~~ takes precedence}; sorting eggs [A01K 43/00](#) {; measuring and sorting devices for shoe components [A43D 119/00](#); sorting cartridges [F42B 35/02](#))}

U B07C 7/00

Sorting by hand only {e.g. of mail}

- U B07C 7/04 · Apparatus or accessories for hand picking
- D B07C 9/00 {~~Sorting, with or without orientating, not otherwise provided for, e.g. sorting of table equipment (washing and rinsing machines for tableware A47L 15/00, A47L 15/02; machines for polishing table equipment A47L 21/02)}~~  
<administratively transferred to [B07C 99/00](#)>
- N B07C 99/00 *Subject matter not provided for in other groups of this subclass*

## Project: RP10455 (B23P)

- M B23P 11/00 Connecting *or disconnecting* metal parts or objects by metal-working techniques, ~~not covered wholly by either not B21J or B23K otherwise provided for~~ (connecting sheet metal or metal tubes, rods, or profiles [B21D 39/00](#); ~~objects produced by methods not important per se, see the relevant subclasses dealing with the objects, e.g. B21F 15/00; B21L 19/00~~; *riveting B21J; soldering, unsoldering, welding B23K*; hand tools for connecting wire or strip [B25B 25/00](#); connecting metal parts by adhesives [F16B 11/00](#))

## Project: MP10335 (B23Q)

- U B23Q 3/00 Devices holding, supporting, or positioning work or tools, of a kind normally removable from the machine (work-tables or other parts, e.g. faceplates, normally not incorporating means for securing work [B23Q 1/00](#); automatic position control [B23Q 15/00](#) {; food cutting boards [A47J 47/00](#); workpiece support for dies [B21D 37/02](#)}; rotary tool heads for turning-machines [B23B 3/24](#), [B23B 3/26](#); non-driven tool holders [B23B 29/00](#); general features of turrets [B23B 29/24](#) {; drawbars in spindles [B23B 31/261](#); for electrical discharge machining [B23H 11/003](#); for welding [B23K 37/04](#); means for securing grinding wheels [B24B 45/00](#); mountings for abrasive wheels [B24D 5/16](#)}; tools or bench devices for fastening, connecting, disengaging or holding [B25B](#) {; chucks for percussive tools [B25D 17/084](#); work benches for manual work [B25H 1/00](#); devices for securing circular saw blades [B27B 5/32](#); for assembling or manufacturing aircrafts [B64F 5/10](#); for holding semiconductors or wafers [H01L 21/67](#); devices for holding circuit boards [H05K 13/0061](#)})
- U B23Q 3/155 · Arrangements for automatic insertion or removal of tools {, e.g. combined with manual handling ([B23Q 7/046](#) takes precedence)}
- U B23Q 3/1552 · {parts of devices for automatically inserting or removing tools}
- M B23Q 3/15546 · · {Devices for recognizing tools in a storage device (~~coding devices~~), e.g. *coding devices*}

## Project: MP10335 (B24B)

- U B24B 39/00 Burnishing machines or devices, i.e. requiring pressure members for compacting the surface zone (modifying the physical properties or structure of metal by burnishing [C21D 7/08](#), [C22F 1/00](#)); Accessories therefor
- M B24B 39/003 · {the working tool being composed of a plurality of working rolls or balls (~~see also B24B 39/023, B24B 39/045~~)}
- U B24B 39/02 · designed for working internal surfaces of revolution
- M B24B 39/023 · {the working tool being composed of a plurality of working rolls or balls (~~see also B24B 39/003, B24B 39/045~~)}
- U B24B 39/04 · designed for working external surfaces of revolution



- M B24B 39/045 · · {the working tool being composed of a plurality of working rolls or balls ~~(see also B24B 39/003, B24B 39/045)~~}

**Project: MP10335 (B25H)**

- M B25H 5/00 Tool, instrument or work supports or storage means used in association with vehicles ~~(means for holding wheels or parts thereof B60B 30/00); Workers' supports, e.g. mechanics' creepers~~ {(collecting or removing exhaust gases in ~~workshops~~ **workshops** B08B 15/002; vehicle lifting devices, e.g. jacks, platforms or ramps B66F)}

**Project: MP10335 (B26B)**

- U B26B 19/00 **Clippers or shavers operating with a plurality of cutting edges, e.g. hair clippers, dry shavers**
- U B26B 19/02 · of the reciprocating-cutter type
- U B26B 19/04 · · Cutting heads therefor; Cutters therefor; Securing equipment thereof
- U B26B 19/10 · · · involving two or more different types of reciprocating cutting elements, e.g. a pair of toothed shearing elements combined with a pair of perforated cutting elements or a combined toothed and perforated cutting assembly
- M B26B 19/107 · · · {with means for selectively engaging the drive for a fixed-position secondary ~~cutting~~ **cutting** unit}

**Project: RP11751 (B29C)**

- U B29C 43/00 **Compression moulding, i.e. applying external pressure to flow the moulding material; Apparatus therefor** {(by liberation of internal stresses B29C 61/006)}
- U B29C 43/02 · of articles of definite length, i.e. discrete articles {(B29C 35/0227 takes precedence)}
- M B29C 43/10 · · Isostatic pressing, i.e. using non-rigid pressure-exerting members against rigid parts or dies ~~{(in general B30B 11/001)}~~
- M B29C 43/12 · · · using bags surrounding the moulding material {or using membranes contacting the moulding material ~~(B29C 70/44 takes precedence; flexible cores for vulcanizing tyres B29D 30/0654)}~~}
- U B29C 43/14 · · in several steps
- M B29C 2043/141 · · · {for making single layer articles ~~(for indefinite articles B29C 43/26)}~~}
- U B29C 43/18 · · incorporating preformed parts or layers, e.g. compression moulding around inserts or for coating articles {(B29C 43/206 takes precedence)}
- M B29C 2043/181 · · · {encapsulated ~~(outsert moulding B29C 70/74)}~~}
- M B29C 2043/182 · · · · {completely ~~(completely encapsulating inserts B29C 70/70)}~~}
- M B29C 2043/185 · · · {using adhesives ~~(joining using adhesives B29C 65/48)}~~}
- M B29C 2043/186 · · · · {hot-melt or heat activated adhesives ~~(applying molten plastics B29C 65/40; joining using adhesives B29C 65/48)}~~}
- M B29C 2043/188 · · · · {thermosetting adhesives, e.g. polyurethane adhesives ~~(joining by heating B29C 65/02)}~~}
- M B29C 43/22 · of articles of indefinite length ~~{(for articles with reinforcements of substantial or continuous length B29C 70/50)}~~}
- U B29C 43/32 · Component parts, details or accessories; Auxiliary operations
- M B29C 2043/3205 · · {~~particular~~ **Particular** pressure exerting means for making definite articles ~~(B29C 43/36 takes precedence)}~~}
- U B29C 43/34 · · Feeding the material to the mould or the compression means {(B29C 43/085 takes precedence)}

- U B29C 2043/3405 . . . {using carrying means}
- M B29C 2043/3427 . . . . {hopper, vessel, chute, tube, conveying screw, for material in discrete form, e.g. particles, ~~powder, fibres~~ *or powder or fibres*}{~~dispensing from vessels B29C 31/02~~}
- M B29C 2043/3433 . . . {using dispensing heads, e.g. extruders, placed over or apart from the moulds ~~(feeding using dispensing heads B29C 31/042; applying fluent material for coatings B05D 1/26; extrusion coating B05D 1/265)~~}
- M B29C 2043/3438 . . . . {moving during dispensing over the moulds, e.g. laying up ~~(feeding using moving dispensing heads B29C 31/044; applying fluent material for coatings B05D 1/26; extrusion coating B05D 1/265)~~}
- M B29C 2043/3444 . . . {using ~~pressurizing~~ *pressurising* feeding means located ~~into the mold~~ *in the mould*, e.g. plungers, ~~pistons~~ *or pistons*}{~~injection-compression moulding B29C 45/561~~}
- M B29C 2043/3466 . . . {using rotating ~~suports~~ *supports*, e.g. turntables, ~~drums~~ *or drums*}{~~in general B29C 31/065; turntables as movable moulds B29C 43/08; feeding materials to moulding presses B30B 15/302; transfer turntables B65G 47/80~~}
- M B29C 2043/3472 . . . . {using star wheels comprising arms ~~(transfer stars B65G 47/84)~~}
- M B29C 2043/3477 . . . {centrally fed, e.g. feeding the material in the center of the ~~mold~~ *turntables mould turntables*}{~~turntables as movable moulds B29C 43/08~~}
- U B29C 43/36 . . . {Moulds for making articles of definite length, i.e. discrete articles}
- M B29C 2043/3602 . . . {with means for positioning, fastening or clamping the material to be formed or preforms inside the mould ~~(moulds with incorporated means for positioning inserts B29C 33/14; positioning articles in the mould for injection moulding B29C 45/14065)~~}
- U B29C 43/361 . . . {with pressing members independently movable of the parts for opening or closing the mould, e.g. movable pistons (transfer moulding [B29C 45/02](#); injection-compression moulding [B29C 45/561](#))}
- M B29C 2043/3615 . . . . {~~forming~~ *Forming* elements, e.g. mandrels, ~~rams, stampers, pistons, plungers, punching devices~~ *or rams or stampers or pistons or plungers or punching devices*}{~~ram pressing B30B 11/02, B30B 11/04; forming pockets in sheets B65B 47/04; moulding lenses B29D 11/00413~~}
- M B29C 2043/3639 . . . . {hand operated ~~(forming pockets or receptacles in or from sheets, blanks, or webs B65B 47/04)~~}
- M B29C 43/3642 . . . {Bags, bleeder sheets or cauls for isostatic pressing ~~(flexible cores for vulcanizing tyres B29D 30/0654)~~}
- M B29C 2043/3644 . . . . {Vacuum bags; Details thereof, e.g. fixing or clamping ~~(B29C 70/544 takes precedence; applying pressure through membranes B29C 51/28; bladders for making tires B29D 30/0601; flexible pressing means B30B 5/02; membrane press B30B 9/22; vacuum laminating B32B 37/1018)~~}
- M B29C 2043/3647 . . . . {~~membranes, diaphragms~~ *Membranes, diaphragms*}{~~vacuum bagging B29C 70/44; applying pressure through membranes B29C 51/28; bladders for making tires B29D 30/0601; vacuum laminating B32B 37/1018; flexible pressing means B30B 5/02; membrane press B30B 9/22~~}
- M B29C 2043/3649 . . . . {~~infatable~~ *Inflatable* bladders using gas or fluid and related details ~~(vacuum bagging B29C 70/44; flexible moulds B29C 33/50; flexible pressing means B30B 5/02; membrane press B30B 9/22; deep drawing membranes B29C 51/28; bladders for making tires B29D 30/0601; vacuum laminating B32B 37/1018)~~}
- M B29C 2043/3652 . . . . {~~elastic~~ *Elastic* moulds or mould parts, e.g. cores, ~~inserts~~ *or inserts*}{~~isostatic pressing B29C 43/10; moulds in elastomer B29C 33/405; plastic cores B29C 33/50~~}

- M B29C 2043/3655 . . . . {Pressure transmitters, e.g. caul plates; ~~Pressure pads~~ *pressure pads*} (~~B29C 70/549 takes precedence~~)
- U B29C 2043/3665 . . . {cores or inserts, e.g. pins, mandrels, sliders}
- M B29C 2043/3668 . . . . {destructible or fusible ~~(moulds for making articles with holes B29C 33/0033; lost moulds B29C 33/0016; fusible cores B29C 33/52; making porous articles B22F 3/11)~~}
- U B29C 2043/3676 . . . {moulds mounted on rotating supporting constuctions}
- M B29C 2043/3678 . . . . {on cylindrical supports with moulds or mould cavities provided on the periphery ~~(rollers for making indefinite articles B29C 43/46; turntables presses B30B 11/08, roller preses B30B 11/006)~~}
- M B29C 2043/3689 . . . . {on a support table, *e.g.* flat disk-like tables having moulds on the periphery ~~(press rams on turntables B30B 11/08, B30B 9/042)~~}
- U B29C 43/42 . . . for undercut articles
- M B29C 2043/425 . . . . {mould parts or sliders being movable independently from the mould halves for making undercut portions ~~(collapsible cores or mandrels B29C 33/485)~~}
- U B29C 43/44 . . Compression means for making articles of indefinite length
- U B29C 43/46 . . . Rollers
- M B29C 2043/467 . . . . {plurality of rollers arranged in a specific manner in relation to each other ~~(calender configuration B29C 43/24)~~}
- M B29C 2043/468 . . . . {take-off rollers, i.e. arranged adjacent a material feeding device ~~(calendering B29C 43/24)~~}
- U B29C 43/50 . . Removing moulded articles
- U B29C 2043/5007 . . . {using cores, i.e. the cores forming part of the mould cavity}
- M B29C 2043/5015 . . . . {having undercuts or being threaded ~~(using a rotating movement to unscrew articles B29C 33/446)~~}
- M B29C 2043/5023 . . . . {moving away ~~(collapsible cores or mandrels B29C 33/485)~~}
- M B29C 2043/5084 . . . {using rotary devices, e.g. turntables, ~~carousels~~ *or carousels*} (~~blow moulding machines B29C 49/36, B29C 49/4205~~)
- U B29C 43/56 . . Compression moulding under special conditions, e.g. vacuum
- M B29C 2043/561 . . . {under vacuum conditions ~~(vacuum laminating B32B 37/1018)~~}
- U B29C 43/58 . . Measuring, controlling or regulating {(for bank adjustment in calendering [B29C 43/245](#))}
- U B29C 2043/5833 . . . {movement of moulds or mould parts, e.g. opening or closing, actuating}
- M B29C 2043/5841 . . . . {for accommodating variation in mould spacing or cavity volume during moulding ~~(compensating shrinkage B29C 43/54)~~}

### Project: RP0413-F (B31B)

#### M B31B 50/00 Making rigid or semi-rigid containers, e.g. boxes or cartons

##### NOTE

In this group, it is desirable to add the indexing codes of groups [B31B 2100/00](#) – [B31B 2120/00](#).

##### WARNING

Group B31B 50/00 is incomplete pending reclassification of documents from groups B31D 1/00, B31D 3/00, B31D 5/00, B31D 5/02, B31D 5/04 and B31D 99/00.

Group B31B 50/00 is also impacted by reclassification into group B31B 50/59. All groups listed in this warning should be considered in order to perform a complete search.

- M B31B 50/02
- Feeding or positioning sheets, blanks or webs
- WARNING  
Group B31B 50/02 is impacted by reclassification into groups B31B 50/022–B31B 50/12.–  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/022
- {Holders for feeding or positioning blanks or webs}
- WARNING  
Groups B31B 50/022 – B31B 50/12 are incomplete pending reclassification of documents from group B31B 50/02.–  
All groups listed in this warning should be considered in order to perform a complete search.
- U B31B 50/04
- • Feeding sheets or blanks
- M B31B 50/06
- • • from stacks
- WARNING  
Group B31B 50/06 is incomplete pending reclassification of documents from group B31B 50/02.–  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/07
- • • by air pressure or suction
- WARNING  
Group B31B 50/07 is incomplete pending reclassification of documents from group B31B 50/02.–  
Groups B31B 50/02 and B31B 50/07 should be considered in order to perform a complete search.
- U B31B 50/10
- • Feeding or positioning webs
- M B31B 50/12
- • • by air pressure or suction
- WARNING  
Group B31B 50/12 is incomplete pending reclassification of documents from group B31B 50/02.–  
Groups B31B 50/02 and B31B 50/12 should be considered in order to perform a complete search.
- M B31B 50/14
- Cutting, e.g. perforating, punching, slitting or trimming (cutting window openings [B31B 50/83](#))
- WARNING  
Group B31B 50/14 is impacted by reclassification into groups B31B 50/142–B31B 50/22 and B31B 50/83.–  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/142
- • {using presses or dies}
- WARNING  
Groups B31B 50/142 – B31B 50/22 are incomplete pending reclassification of documents from group B31B 50/14.–  
All groups listed in this warning should be considered in order to perform a complete search.

- M B31B 50/16
- Cutting webs
- WARNING  
 Group B31B 50/16 is incomplete pending reclassification of documents from group B31B 50/14. Group B31B 50/16 is also impacted by reclassification into group B31B 50/18.  
 Groups B31B 50/14, B31B 50/16 and B31B 50/18 should be considered in order to perform a complete search.
- M B31B 50/18
- longitudinally
- WARNING  
 Group B31B 50/18 is incomplete pending reclassification of documents from groups B31B 50/14 and B31B 50/16.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/20
- Cutting sheets or blanks
- WARNING  
 Groups B31B 50/20 and B31B 50/22 are incomplete pending reclassification of documents from group B31B 50/14.  
 Groups B31B 50/14, B31B 50/20 and B31B 50/22 should be considered in order to perform a complete search.
- M B31B 50/26
- Folding sheets, blanks or webs
- WARNING  
 Group B31B 50/26 is impacted by reclassification into groups B31B 50/262 - B31B 50/585.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/262
- {involving folding, leading, or trailing flaps of blanks}
- WARNING  
 Group B31B 50/262 is incomplete pending reclassification of documents from group B31B 50/26.  
 Groups B31B 50/26 and B31B 50/262 should be considered in order to perform a complete search.
- M B31B 50/28
- around mandrels, e.g. for forming bottoms
- WARNING  
 Groups B31B 50/28 - B31B 50/34 are incomplete pending reclassification of documents from group B31B 50/26.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/36
- by continuously feeding the sheets, blanks or webs to stationary members, e.g. plates, ploughs or cores
- WARNING  
 Group B31B 50/36 is incomplete pending reclassification of documents from group B31B 50/26.  
 Group B31B 50/36 is also impacted by reclassification into groups B31B 50/38, B31B 50/40 and B31B 50/42.  
 All groups listed in this warning should be considered in order to perform a complete search.

- M B31B 50/38
- • • the members being forming-tubes
- WARNING**  
Groups B31B 50/38, B31B 50/40 and B31B 50/42 are incomplete pending reclassification of documents from groups B31B 50/26 and B31B 50/36. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/44
- • by plungers moving through folding dies
- WARNING**  
Group B31B 50/44 is incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/52 and B31B 50/54. Group B31B 50/44 is also impacted by reclassification into groups B31B 50/442 and B31B 50/444. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/442
- • • {having several cooperating plungers and dies fitted on a rotating table or on moving chains}
- WARNING**  
Groups B31B 50/442 and B31B 50/444 are incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/44, B31B 50/52 and B31B 50/54. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/46
- • • and interconnecting side walls
- WARNING**  
Group B31B 50/46 is incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/52 and B31B 50/54. Group B31B 50/46 is also impacted by reclassification into groups B31B 50/48 and B31B 50/50. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/48
- • • by folding or tucking in locking flaps
- WARNING**  
Groups B31B 50/48 and B31B 50/50 are incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/46, B31B 50/52 and B31B 50/54. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/52
- • by reciprocating or oscillating members, e.g. fingers (by plungers moving through folding dies [B31B 50/44](#))
- WARNING**  
Group B31B 50/52 is incomplete pending reclassification of documents from group B31B 50/26. Group B31B 50/52 is also impacted by reclassification into groups B31B 50/54 and B31B 50/44-B31B 50/50. All groups listed in this warning should be considered in order to perform a complete search.



- M B31B 50/54
- • operating on moving material
- WARNING  
Group B31B 50/54 is incomplete pending reclassification of documents from groups B31B 50/26 and B31B 50/52.  
Group B31B 50/54 is also impacted by reclassification into groups B31B 50/44-B31B 50/50.  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/56
- • by rotary members co-operating with blades
- WARNING  
Groups B31B 50/56, B31B 50/58 and B31B 50/585 are incomplete pending reclassification of documents from groups B31B 50/26.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/59
- Shaping sheet material under pressure (by folding [B31B 50/26](#); embossing [B31B 50/88](#))
- WARNING  
Group B31B 50/59 is incomplete pending reclassification of documents from group B31B 50/00.  
Groups B31B 50/00 and B31B 50/59 should be considered in order to perform a complete search.
- M B31B 50/60
- Uniting opposed surfaces or edges; Taping
- WARNING  
Group B31B 50/60 is impacted by reclassification into groups B31B 50/61-B31B 50/734.  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/61
- {Uniting opposed edges by injecting thermoplastic material}
- WARNING  
Groups B31B 50/61 is incomplete pending reclassification of documents from group B31B 50/60.  
Groups B31B 50/60 and B31B 50/61 should be considered in order to perform a complete search.
- M B31B 50/62
- • by adhesives
- WARNING  
Group B31B 50/62 - B31B 50/626 are incomplete pending reclassification of documents from groups B31B 50/60 and B31B 50/64.  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/64
- • by applying heat or pressure, e.g. by welding (to unite areas where adhesives are applied [B31B 50/62](#))
- WARNING  
Group B31B 50/64 is incomplete pending reclassification of documents from group B31B 50/60.  
Group B31B 50/64 is also impacted by reclassification into groups B31B 50/62, B31B 50/622, B31B 50/624, B31B 50/626, and B31B 50/66.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B31B 50/642
- • {using sealing jaws or sealing dies}
- WARNING  
Groups B31B 50/642 – B31B 50/649 are incomplete pending reclassification of documents from groups B31B 50/60.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/66
- • by high-frequency electric heating
- WARNING  
Group B31B 50/66 is incomplete pending reclassification of documents from groups B31B 50/60 and B31B 50/64.  
Groups B31B 50/60, B31B 50/64 and B31B 50/66 should be considered in order to perform a complete search.
- M B31B 50/68
- • by stitching, stapling or riveting
- WARNING  
Groups B31B 50/68 – B31B 50/70 are incomplete pending reclassification of documents from groups B31B 50/60.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/72
- • by applying and securing strips or sheets
- WARNING  
Groups B31B 50/72 – B31B 50/726 are incomplete pending reclassification of documents from groups B31B 50/60.  
All groups listed in this Warning should be considered in order to perform a complete search.
- U B31B 50/73
- • by mechanically interlocking integral parts, e.g. by tongues and slots (interconnecting side walls during folding by plungers moving through folding dies [B31B 50/46](#))
- U B31B 50/732
- • {by folding or tucking-in locking flaps}
- M B31B 50/734
- • • {interengaging tongues and slots}
- WARNING  
Groups B31B 50/73 – B31B 50/734 are incomplete pending reclassification of documents from groups B31B 50/60.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/74
- Auxiliary operations
- WARNING  
Group B31B 50/74 is impacted by reclassification into groups B31B 50/741 – B31B 50/98.  
All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/741
- • {Moistening; Drying; Cooling; Heating; Sterilizing}
- WARNING  
Group B31B 50/741 is incomplete pending reclassification of documents from group B31B 50/74.  
Groups B31B 50/741 and B31B 50/74 should be considered in order to perform a complete search.

- M B31B 50/742
- • {Coating; Impregnating; Waterproofing; Decoating}
- WARNING  
 Groups B31B 50/742 - B31B 50/756 are incomplete pending reclassification of documents from group B31B 50/74.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/76
- • Opening and distending flattened articles
- WARNING  
 Group B31B 50/76 is incomplete pending reclassification of documents from group B31B 50/74.  
 Groups B31B 50/76 and B31B 50/74 should be considered in order to perform a complete search.
- M B31B 50/81
- • Forming or attaching accessories, e.g. opening devices, closures or tear strings
- WARNING  
 Group B31B 50/81 is incomplete pending reclassification of documents from B31B 50/74.  
 Group B31B 50/81 is also impacted by reclassification into groups B31B 50/84 and B31B 50/85.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/811
- • • {Applying strips, strings, laces or ornamental edgings to formed boxes}
- WARNING  
 Groups B31B 50/811-B31B 50/8144 are incomplete pending reclassification of documents from group B31B 50/74.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/82
- • • Forming or attaching windows
- WARNING  
 Group B31B 50/82 is incomplete pending reclassification of documents from B31B 50/74.  
 Group B31B 50/82 is also impacted by reclassification into group B31B 50/83.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 50/83
- • • Cutting window openings
- WARNING  
 Group B31B 50/83 is incomplete pending reclassification of documents from groups B31B 50/74 and B31B 50/82.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 50/84
- • • Forming or attaching means for filling or dispensing contents, e.g. valves or spouts
- WARNING  
 Group B31B 50/84 is incomplete pending reclassification of documents from groups B31B 50/74 and B31B 50/81.  
 Group B31B 50/84 is also impacted by reclassification into groups B31B 50/85.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B31B 50/85
- • • Applying patches or flexible valve inserts, e.g. applying film-like valves

**WARNING**

Group B31B 50/85 is incomplete pending reclassification of documents from groups B31B 50/74, B31B 50/81 and B31B 50/84.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B31B 50/86
- • • Forming integral handles; Attaching separate handles

**WARNING**

Groups B31B 50/86 – B31B 50/98 are incomplete pending reclassification of documents from group B31B 50/74.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B31B 50/99
- using hand tools

**WARNING**

Group B31B 50/99 is incomplete pending reclassification of documents from group B31B 2247/00.

Group B31B 50/99 is also impacted by reclassification into group B31B 70/99.

All groups listed in this warning should be considered in order to perform a complete search.

**U B31B 70/00**

**Making flexible containers, e.g. envelopes or bags**

**NOTES**

1. Processes or apparatus for making both flexible containers and rigid or semi-rigid containers are classified in group [B31B 50/00](#).

2. In this group, it is desirable to add the indexing codes of groups [B31B 2150/00](#) - [B31B 2170/00](#).

- M B31B 70/008
- {Stiffening or reinforcing ([B31B 70/876](#) takes precedence)}

**WARNING**

Group B31B 70/008 is impacted by reclassification into group B31B 70/876.

Groups B31B 70/008 and B31B 70/876 should be considered in order to perform a complete search.

- M B31B 70/14
- Cutting, e.g. perforating, punching, slitting or trimming (cutting window openings [B31B 70/83](#))

**WARNING**

Group B31B 70/14 is impacted by reclassification into group B31B 70/83.

Groups B31B 70/14 and B31B 70/83 should be considered in order to perform a complete search.

- M B31B 70/60
- Uniting opposed surfaces or edges; Taping

**WARNING**

Group B31B 70/60 is impacted by reclassification into groups B31B 70/61 – B31B 70/68.

All groups listed in this warning should be considered in order to perform a complete search.

- M B31B 70/61
- • {by applying or securing strips or tape}
- WARNING  
 Groups B31B 70/61–B31B 70/68 are incomplete pending reclassification of documents from group B31B 70/60.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/74
- Auxiliary operations
- WARNING  
 Group B31B 70/74 is impacted by reclassification into groups B31B 70/76–B31B 70/988.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/76
- • {Moistening; Drying; Cooling; Heating}
- WARNING  
 Group B31B 70/76 is incomplete pending reclassification of documents from group B31B 70/74.  
 Groups B31B 70/74 and B31B 70/76 should be considered in order to perform a complete search.
- M B31B 70/79
- • {Coating; Impregnating; Waterproofing; Decoating}
- WARNING  
 Group B31B 70/79 is incomplete pending reclassification of documents from group B31B 70/74.  
 Groups B31B 70/74 and B31B 70/79 should be considered in order to perform a complete search.
- M B31B 70/81
- • Forming or attaching accessories, e.g. opening devices, closures or tear strings
- WARNING  
 Groups B31B 70/81–B31B 70/8137 are incomplete pending reclassification of documents from group B31B 70/74.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/82
- • • Forming or attaching windows
- WARNING  
 Group B31B 70/82 is incomplete pending reclassification of documents from group B31B 70/74.  
 Group B31B 70/82 is also impacted by reclassification into groups B31B 70/822, B31B 70/826 and B31B 70/83.  
 All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/822
- • • {by making paper transparent or translucent; by applying transparent melt}
- WARNING  
 Groups B31B 70/822–B31B 70/826 are incomplete pending reclassification of documents from group B31B 70/74 and B31B 70/82.  
 All groups listed in this warning should be considered in order to perform a complete search.

- M B31B 70/83
- • • Cutting window openings
- WARNING  
Group B31B 70/83 is incomplete pending reclassification of documents from groups B31B 70/14, B31B 70/74 and B31B 70/82. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/84
- • • Forming or attaching means for filling or dispensing contents, e.g. valves or spouts
- WARNING  
Group B31B 70/84 is incomplete pending reclassification of documents from group B31B 70/74. Group B31B 70/84 is also impacted by reclassification into groups B31B 70/844 – B31B 70/859. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/844
- • • {Applying rigid valves, spouts, or filling tubes}
- WARNING  
Groups B31B 70/844 – B31B 70/859 are incomplete pending reclassification of documents from groups B31B 70/74 and B31B 70/84. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/86
- • Forming integral handles or mounting separate handles
- WARNING  
Groups B31B 70/86 – B31B 70/874 are incomplete pending reclassification of documents from group B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/876
- • • {involving application of reinforcement strips or patches; involving reinforcements obtained by folding}
- WARNING  
Group B31B 70/876 is incomplete pending reclassification of documents from groups B31B 70/008 and B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/88
- • Printing; Embossing
- WARNING  
Groups B31B 70/88 – B31B 70/988 are incomplete pending reclassification of documents from group B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 70/99
- using hand tools
- WARNING  
Group B31B 70/99 is incomplete pending reclassification of documents from groups B31B 50/99 and B31B 2247/00. Groups B31B 50/99, B31B 2247/00 and B31B 70/99 should be considered in order to perform a complete search.



<b>M</b>	<b>B31B 2100/00</b>	<p><b>Rigid or semi-rigid containers made by folding single-piece sheets, blanks or webs</b></p> <p><u>WARNING</u> Group B31B 2100/00 is impacted by reclassification into groups B31B 2100/002–B31B 2100/0028. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2100/002</b>	<ul style="list-style-type: none"> <li>• {characterised by the shape of the blank from which they are formed}</li> </ul> <p><u>WARNING</u> Groups B31B 2100/002 – B31B 2100/0028 are incomplete pending reclassification of documents from group B31B 2100/00. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2105/00</b>	<p><b>Rigid or semi-rigid containers made by assembling separate sheets, blanks or webs</b></p> <p><u>WARNING</u> Group B31B 2105/00 is impacted by reclassification into groups B31B 2105/001–B31B 2105/0027. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2105/001</b>	<ul style="list-style-type: none"> <li>• {made from laminated webs, e.g. including laminating the webs}</li> </ul> <p><u>WARNING</u> Groups B31B 2105/001 – B31B 2105/0027 are incomplete pending reclassification of documents from group B31B 2105/00. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2110/00</b>	<p><b>Shape of rigid or semi-rigid containers</b></p> <p><u>WARNING</u> Group B31B 2110/00 is impacted by reclassification into groups B31B 2110/10–B31B 2110/40. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2110/10</b>	<ul style="list-style-type: none"> <li>• having a cross section of varying size or shape, e.g. conical or pyramidal</li> </ul> <p><u>WARNING</u> Groups B31B 2110/10 – B31B 2110/40 are incomplete pending reclassification of documents from group B31B 2110/00. All groups mentioned should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B31B 2120/00</b>	<p><b>Construction of rigid or semi-rigid containers</b></p> <p><u>WARNING</u> Group B31B 2120/00 is impacted by reclassification into groups B31B 2120/002–B31B 2120/70. All groups mentioned should be considered in order to perform a complete search.</p>

M	B31B 2120/002	<ul style="list-style-type: none"> <li>• {having contracted or rolled necks, having shoulders}</li> </ul> <p><u>WARNING</u> Groups B31B 2120/002 – B31B 2120/70 are incomplete pending reclassification of documents from group B31B 2120/00. All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2150/00	<p><b>Flexible containers made from sheets or blanks, e.g. from flattened tubes</b></p> <p><u>WARNING</u> Group B31B 2150/00 is impacted by reclassification into groups B31B 2150/001 – B31B 2150/20, B31B 2170/00 and B31B 2170/30. All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2150/001	<ul style="list-style-type: none"> <li>• {with square or cross bottom}</li> </ul> <p><u>WARNING</u> Groups B31B 2150/001 – B31B 2150/20 are incomplete pending reclassification of documents from group B31B 2150/00. All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2155/00	<p><b>Flexible containers made from webs</b></p> <p><u>WARNING</u> Group B31B 2155/00 is impacted by reclassification into groups B31B 2155/001 – B31B 2155/003, B31B 2170/00 and B31B 2170/30. All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2155/001	<ul style="list-style-type: none"> <li>• {by folding webs longitudinally}</li> </ul> <p><u>WARNING</u> Groups B31B 2155/001 – B31B 2155/003 are incomplete pending reclassification of documents from group B31B 2150/00. All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2160/00	<p><b>Shape of flexible containers</b></p> <p><u>WARNING</u> Group B31B 2160/00 is incomplete pending reclassification of documents from groups B31B 2241/00 – B31B 2241/008. Group B31B 2160/00 is also impacted by reclassification into groups B31B 2160/10 – B31B 2160/30 All groups mentioned should be considered in order to perform a complete search.</p>
M	B31B 2160/10	<ul style="list-style-type: none"> <li>• rectangular and flat, i.e. without structural provision for thickness of contents</li> </ul> <p><u>WARNING</u> Group B31B 2160/10 is incomplete pending reclassification of documents from group B31B 2160/00. Group B31B 2160/10 is also impacted by reclassification into groups B31B 2160/102 – B31B 2160/106. All groups listed in this Warning should be considered in order to perform a complete search.</p>

- M B31B 2160/102
- {obtained from essentially rectangular sheets}
- WARNING**  
Groups B31B 2160/102 – B31B 2160/106 are incomplete pending reclassification of documents from groups B31B 2160/00 and B31B 2160/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 2160/20
- with structural provision for thickness of contents
- WARNING**  
Groups B31B 2160/20 and B31B 2160/30 are incomplete pending reclassification of documents from B31B 2160/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M B31B 2170/00 Construction of flexible containers**
- WARNING**  
Group B31B 2170/00 is incomplete pending reclassification of documents from groups B31B 2150/00 and B31B 2155/00. Group B31B 2170/00 is also impacted by reclassification into groups B31B 2170/10 – B31B 2170/30. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 2170/10
- interconnected
- WARNING**  
Groups B31B 2170/10 – B31B 2170/204 are incomplete pending reclassification of documents from group B31B 2170/00. Groups B31B 2170/00 – B31B 2170/204 should be considered in order to perform a complete search.
- M B31B 2170/30
- having corrugated or pleated walls
- WARNING**  
Groups B31B 2170/30 is incomplete pending reclassification of documents from groups B31B 2150/00, B31B 2155/00 and B31B 2170/00. All groups listed in this warning should be considered in order to perform a complete search.
- M B31B 2241/00 Making bags or boxes intended for a specific use**
- WARNING**  
Groups B31B 2241/00 – B31B 2241/008 are impacted by reclassification into group B31B 2160/00. Groups B31B 2241/00 – B31B 2241/008 and B31B 2160/00 should be considered in order to perform a complete search.
- M B31B 2247/00 Manual operations for making bags or boxes**
- WARNING**  
Group B31B 2247/00 is impacted by reclassification into groups B31B 50/99 and B31B 70/99. Groups B31B 2247/00, B31B 50/99 and B31B 70/99 should be considered in order to perform a complete search.

**Project: RP10455 (B31C)**

- U B31C 11/00 Machinery for winding combined with other machinery**

- U B31C 11/06 · for drying the wound and impregnated articles
- D B31C 13/00 ~~{Making wound articles not otherwise provided for}~~  
<administratively transferred to [B31C 99/00](#)>
- N B31C 99/00 *Subject matter not provided for in other groups of this subclass*

## Project: RP0413-F (B31D)

- M B31D 1/00 **Multiple-step processes for making flat articles {; Making flat articles}**  
WARNING  
~~Group B31D 1/00 is impacted by reclassification into group B31B 50/00.  
Groups B31D 1/00 and B31B 50/00 should be considered in order to perform a complete search.~~
- M B31D 3/00 **Making articles of cellular structure, e.g. insulating board**  
WARNING  
~~Group B31D 3/00 is impacted by reclassification into group B31B 50/00.  
Groups B31D 3/00 and B31B 50/00 should be considered in order to perform a complete search.~~
- M B31D 5/00 **Multiple-step processes for making three-dimensional articles {; Making three-dimensional articles}**  
NOTE  
Making drinking straws is classified in group [B31D 5/00](#), e.g. [B31D 5/0095](#)  
WARNING  
~~Group B31D 5/00 is impacted by reclassification into group B31B 50/00.  
Groups B31D 5/00 and B31B 50/00 should be considered in order to perform a complete search.~~
- M B31D 5/0039 · {for making dunnage or cushion pads}  
WARNING  
~~Group B31D 5/0039 is impacted by reclassification into group B31D 5/04.  
Groups B31D 5/0039 and B31D 5/04 should be considered in order to perform a complete search.~~
- M B31D 5/02 · including pressing  
WARNING  
~~Group B31D 5/02 is impacted by reclassification into group B31B 50/00.  
Groups B31D 5/02 and B31B 50/00 should be considered in order to perform a complete search.~~
- M B31D 5/04 · including folding or pleating, e.g. Chinese lanterns  
WARNING  
~~Group B31D 5/04 is incomplete pending reclassification of documents from group B31D 5/0039.  
Group B31D 5/04 is also impacted by reclassification into group B31B 50/00.  
Groups B31D 5/04, B31D 5/0039, and B31B 50/00 should be considered in order to perform a complete search.~~
- M B31D 99/00 **Subject matter not provided for in other groups of this subclass**  
WARNING  
~~Group B31D 99/00 is impacted by reclassification into group B31B 50/00.~~

~~Groups B31D 99/00 and B31B 50/00 should be considered in order to perform a complete search.~~

### Project: RP0413-F (B31F)

**U B31F 1/00 Mechanical deformation without removing material, e.g. in combination with laminating**

- U B31F 1/0003
  - {Shaping by bending, folding, twisting, straightening, flattening or rim-rolling; Shaping by bending, folding or rim-rolling combined with joining; Apparatus therefor (shaping of tube ends [B31F 1/008](#))}
- U B31F 1/0038
  - · {Rim-rolling}
- M B31F 1/0041
  - · · {combined with joining}

**WARNING**

~~Group B31F 1/0041 is impacted by reclassification into group B31F 5/00. Groups B31F 1/0041 and B31F 5/00 should be considered in order to perform a complete search.~~

- M B31F 1/008
  - {Shaping of tube ends, e.g. flanging, belling, closing, rim-rolling or corrugating; Fixing elements to tube ends}

**WARNING**

~~Group B31F 1/008 is impacted by reclassification into group B31F 5/00. Groups B31F 1/008 and B31F 5/00 should be considered in order to perform a complete search.~~

- U B31F 1/0087
  - · {Rim-rolling}
- M B31F 1/009
  - · · {combined with joining, e.g. for fixing a closure element}

**WARNING**

~~Group B31F 1/009 is impacted by reclassification into group B31F 5/00. Groups B31F 1/009 and B31F 5/00 should be considered in order to perform a complete search.~~

**M B31F 5/00 Attaching together sheets, strips or webs; Reinforcing edges**

**WARNING**

~~Group B31F 5/00 is incomplete pending reclassification of documents from groups B31F 1/0041, B31F 1/008 and B31F 1/009. Groups B31F 5/00, B31F 1/0041, B31F 1/008 and B31F 1/009 should be considered in order to perform a complete search.~~

### Project: N/A (B32B)

**U B32B 5/00 Layered products characterised by the non- homogeneity or physical structure {, i.e. comprising a fibrous, filamentary, particulate or foam layer; Layered products characterised by having a layer differing constitutionally or physically in different parts}**

- B32B 5/02
  - characterised by structural features of a {fibrous or filamentary} layer {(layer formed of metallic wires [B32B 15/02](#); layer formed of natural mineral fibres [B32B 19/02](#); layer formed of wood fibres [B32B 21/02](#))}

**NOTES**

1. This group ~~covers~~ covers, in addition to filamentary and fibrous layers as defined in Note (4) following the title of this subclass, layers of substances

having an intrinsic fibrous nature (e.g. paper, wood), if the fibrous nature is important and the particular substance is not important.

2. {When classifying in group [B32B 5/02](#), the chemical composition of the fibres is further classified by using the Indexing symbols [B32B 2262/00](#) - [B32B 2262/16](#).}

### Project: RP0564-F (B32B)

- U B32B 7/00** Layered products characterised by the relation between layers; Layered products characterised by the relative orientation of features between layers, or by the relative values of a measurable parameter between layers, i.e. products comprising layers having different physical, chemical or physicochemical properties; Layered products characterised by the interconnection of layers
- M B32B 7/02** • Physical, chemical or physicochemical properties
- WARNING**  
Group B32B-7/02 is impacted by reclassification into groups B32B-7/022, B32B-7/023, B32B-7/025, B32B-7/027, and B32B-7/028. All groups listed in this Warning should be considered in order to perform a complete search.
- M B32B 7/022** • Mechanical properties
- WARNING**  
Groups B32B-7/022, B32B-7/023, B32B-7/025, B32B-7/027, and B32B-7/028 are incomplete pending reclassification of documents from group B32B-7/02. All groups listed in this Warning should be considered in order to perform a complete search.
- M B32B 7/03** • with respect to the orientation of features (direction of fibres or filaments [B32B 5/12](#))
- WARNING**  
Group B32B-7/03 is impacted by reclassification into group B32B-7/035. Groups B32B-7/03 and B32B-7/035 should be considered in order to perform a complete search.
- M B32B 7/035** • using arrangements of stretched films, e.g. of mono-axially stretched films arranged alternately
- WARNING**  
Group B32B-7/035 is incomplete pending reclassification of documents from group B32B-7/03. Groups B32B-7/03 and B32B-7/035 should be considered in order to perform a complete search.
- U B32B 7/04** • Interconnection of layers
- M B32B 7/08** • by mechanical means
- WARNING**  
Group B32B-7/08 is impacted by reclassification into group B32B-7/09. Groups B32B-7/08 and B32B-7/09 should be considered in order to perform a complete search.
- M B32B 7/09** • by stitching, needling or sewing (by {mechanically connecting} fibrous layers {to another layer} [B32B 5/06](#))
- WARNING**  
Group B32B-7/09 is incomplete pending reclassification of documents from group B32B-7/08.



~~Groups B32B 7/08 and B32B 7/09 should be considered in order to perform a complete search.~~

**Project: RP0446-F (B41J)**

- U B41J 11/00** Devices or arrangements {of selective printing mechanisms, e.g. ink-jet printers, thermal printers,} for supporting or handling copy material in sheet or web form (specially adapted for supporting or handling copy material in short lengths [B41J 13/00](#); in continuous form [B41J 15/00](#); holders for text to be copied [B41J 29/00](#))
- U B41J 11/0015** · {for treating before, during or after printing or for uniform coating or laminating the copy material before or after printing (selective coating [B41J 2/2114](#))}
- M B41J 11/002** · · {Curing or drying the ink on the copy materials, e.g. by heating or irradiating}
- WARNING**  
~~Group B41J 11/002 is impacted by reclassification into groups B41J 11/0021, B41J 11/00212, B41J 11/00214, B41J 11/00216, B41J 11/00218, B41J 11/0022, B41J 11/00222, B41J 11/00224, B41J 11/0024, B41J 11/00242, and B41J 11/00244.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M B41J 11/0021** · · · {using irradiation}
- WARNING**  
~~Groups B41J 11/0021 -- B41J 11/00218 are incomplete pending reclassification of documents from group B41J 11/002.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M B41J 11/0022** · · · {using convection means, e.g. by using a fan for blowing or sucking air}
- WARNING**  
~~Groups B41J 11/0022 -- B41J 11/00224 are incomplete pending reclassification of documents from group B41J 11/002.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M B41J 11/0024** · · · {using conduction means, e.g. by using a heated platen}
- WARNING**  
~~Groups B41J 11/0024 -- B41J 11/00244 are incomplete pending reclassification of documents from group B41J 11/002.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**Project: RP10455 (B60D)**

- U B60D 5/00** Gangways for coupled vehicles, e.g. of concertina type
- U B60D 5/006** · {Passages between articulated vehicles, e.g. bridges or rotating plates}
- D B60D 7/00** ~~{Other connections}~~  
<administratively transferred to [B60D 99/00](#)>
- N B60D 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: MP10335 (B60H)**

- U B60H 1/00 Heating, cooling or ventilating {[HVAC]} devices (heating, cooling or ventilating devices providing other air treatment, the other treatment being relevant, [B60H 3/00](#); ventilating solely by opening windows, doors, roof parts, or the like [B60J](#); heating or ventilating devices for vehicle seats [B60N 2/56](#); vehicle window or windscreen cleaners using air, e.g. defrosters, [B60S 1/54](#))

NOTE

In this group and its subgroups, as well as in patent documents, the following abbreviation is used:

- HVAC Heating, Ventilating and Air Conditioning

- U B60H 1/24
- Devices purely for ventilating or where the heating or cooling is irrelevant (nozzles, air-diffusers [B60H 1/34](#))
- U B60H 1/26
- • Ventilating openings in vehicle exterior; Ducts for conveying ventilating air
- M B60H 1/265
- • • {Openings in window or door ~~past posts~~ or pillars (~~door pasts per se~~ [B62D 25/14](#); [B60H 1/248](#) takes precedence; ~~door posts per se~~ [B62D 25/04](#))}

**Project: RP0617-F (B60K)**

- M B60K 16/00 Arrangements in connection with power supply of propulsion units in vehicles from forces of nature, e.g. sun or wind (electric propulsion with power supply from forces of nature, e.g. sun or wind [B60L 8/00](#); marine propulsion by wind motors driving water-engaging propulsive elements [B63H 13/00](#); wind motors specially adapted for installation on vehicles [F03D 9/32](#))

NOTE

When classifying in this group, details of sail or rigging arrangements which are suited for marine wind propulsion are also classified in the relevant groups of subclass [B63H](#), e.g. in groups [B63H 8/00](#), [B63H 9/04](#).

WARNING

~~Group B60K 16/00 is impacted by reclassification into groups B63H 8/00–B63H 8/70, B63H 9/04, B63H 9/06, B63H 9/061, B63H 9/065, B63H 9/067 and B63H 9/068–B63H 9/072.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B60K 2016/006
- {wind power driven}

WARNING

~~Group B60K 2016/006 is impacted by reclassification into groups B63H 8/00–B63H 8/70, B63H 9/04, B63H 9/06, B63H 9/061, B63H 9/065, B63H 9/067 and B63H 9/068–B63H 9/072.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**Project: RP0617-F (B62B)**

**M B62B 15/00 Other sledges; Ice boats or sailing sledges**

NOTE

When classifying in this group, details of sail or rigging arrangements which are suited for marine wind propulsion are also classified in the relevant groups of subclass [B63H](#), e.g. in groups [B63H 8/00](#), [B63H 9/04](#).

WARNING

~~Groups B62B 15/00 - B62B 15/005 are impacted by reclassification into groups B63H 8/00 - B63H 8/70, B63H 9/04, B63H 9/06, B63H 9/061, B63H 9/065, B63H 9/067 and B63H 9/068 - B63H 9/072.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**Project: RP10455 (B62C)**

**U B62C 11/00 Safeguarding appliances not otherwise provided for, e.g. for readily releasing unmanageable draught animals**

U B62C 11/02 · Providing for disengaging thills

U B62C 11/04 · · combined with automatic braking

**N B62C 99/00 Subject matter not provided for in other groups of this subclass**

**Project: RP0657-F (B62J)**

**M B62J 3/00 Acoustic signal devices (arrangements indicating unauthorised use of cycles [B62H 5/20](#)); Arrangement of such devices on cycles**

NOTE

Group [B62J 3/00](#) is to be understood as restricted to adaptations of signal or lighting devices peculiar to their use on cycles

WARNING

~~Group B62J 3/00 is impacted by reclassification into groups B62J 3/02, B62J 3/04, B62J 3/06, B62J 3/08, B62J 3/10, B62J 3/12, and B62J 3/14.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M B62J 3/02 · Mechanical devices

WARNING

~~Groups B62J 3/02 - B62J 3/08 are incomplete pending reclassification of documents from group B62J 3/00.~~

~~All Groups listed in this Warning should be considered in order to perform a complete search.~~

M B62J 3/10 · Electrical devices

WARNING

~~Groups B62J 3/10 - B62J 3/14 are incomplete pending reclassification of documents from group B62J 3/00.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**M B62J 6/00 Arrangement of optical signalling or lighting devices on cycles; Mounting or supporting thereof; Circuits therefor**

**WARNING**

Group B62J 6/00 is impacted by reclassification into groups B62J 6/22, B62J 6/24, and B62J 6/26.

All groups listed in this Warning should be considered in order to perform a complete search.

**M B62J 6/02**

- Headlights

**WARNING**

Group B62J 6/02 is impacted by reclassification into groups B62J 6/022, B62J 6/023, B62J 6/024, B62J 6/025, B62J 6/026, B62J 6/027, B62J 6/028, B62J 6/029, and B62J 6/03.

All groups listed in this Warning should be considered in order to perform a complete search.

**M B62J 6/022**

- specially adapted for motorcycles or the like

**WARNING**

Groups B62J 6/022 – B62J 6/027 are incomplete pending reclassification of documents from group B62J 6/02.

All groups listed in this Warning should be considered in order to perform a complete search.

**M B62J 6/028**

- specially adapted for rider-propelled cycles with or without additional source of power

**WARNING**

Groups B62J 6/028 – B62J 6/03 are incomplete pending reclassification of documents from group B62J 6/02.

All groups listed in this Warning should be considered in order to perform a complete search.

**M B62J 6/04**

- Rear lights

**WARNING**

Group B62J 6/04 is impacted by reclassification into group B62J 6/045.

Groups B62J 6/04 and B62J 6/045 should be considered in order to perform a complete search.

**M B62J 6/045**

- indicating braking

**WARNING**

Group B62J 6/045 is incomplete pending reclassification of documents from group B62J 6/04.

Groups B62J 6/04 and B62J 6/045 should be considered in order to perform a complete search.

**M B62J 6/05**

- Direction indicators

**WARNING**

Group B62J 6/05 is impacted by reclassification into groups B62J 6/052, B62J 6/053, B62J 6/054, B62J 6/055, B62J 6/056 and B62J 6/057.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B62J 6/052
- Mechanical means, e.g. rotating arms
- WARNING  
Groups B62J 6/052 – B62J 6/054 are incomplete pending reclassification of documents from group B62J 6/05.–  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B62J 6/055
- Electrical means, e.g. lamps
- WARNING  
Groups B62J 6/055 – B62J 6/057 are incomplete pending reclassification of documents from group B62J 6/05.–  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B62J 6/16
- Arrangement of switches
- WARNING  
Group B62J 6/16 is impacted by reclassification into group B62J 6/165.–  
Groups B62J 6/16 and B62J 6/165 should be considered in order to perform a complete search.
- M B62J 6/165
- Wireless switches
- WARNING  
Group B62J 6/165 is incomplete pending reclassification of documents from group B62J 6/16.–  
Groups B62J 6/16 and B62J 6/165 should be considered in order to perform a complete search.
- M B62J 6/22
- Warning or information lights
- WARNING  
Group B62J 6/22 – B62J 6/26 are incomplete pending reclassification of documents from group B62J 6/00.–  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B62J 9/00
- Containers specially adapted for cycles, e.g. panniers or saddle bags**
- WARNING  
Group B62J 9/00 is impacted by reclassification into groups B62J 9/10, B62J 9/12, B62J 9/14, B62J 9/16, B62J 9/18, B62J 9/23, B62J 9/24, B62J 9/26, B62J 9/27, B62J 9/28, and B62J 9/30.–  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B62J 9/10
- integrated with the cycle
- WARNING  
Groups B62J 9/10 – B62J 9/12 are incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40 and B62J 11/22.–  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B62J 9/14
- under the saddle
- WARNING  
Group B62J 9/14 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, B62J 11/22 and B62J 11/24.–

All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 9/16

- under the floor board

WARNING

Group B62J 9/16 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40 and B62J 11/22.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 9/18

- in a dummy fuel tank

WARNING

Group B62J 9/18 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40 and B62J 11/22.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 9/20

- attached to the cycle as accessories

WARNING

Group B62J 9/20 is incomplete pending reclassification of documents from groups B62J 9/40 and B62J 11/22.  
Group B62J 9/20 is also impacted by reclassification into groups B62J 9/10, B62J 9/12, B62J 9/14, B62J 9/16, B62J 9/18, B62J 9/23, B62J 9/24, B62J 9/25, B62J 9/26, B62J 9/27, B62J 9/28, and B62J 9/30.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 9/21

- above or alongside the front wheel, e.g. on the handlebars

WARNING

Group B62J 9/21 is incomplete pending reclassification of documents from groups B62J 9/40 and B62J 11/22.  
Groups B62J 9/40, B62J 11/22, and B62J 9/21 should be considered in order to perform a complete search.

M B62J 9/22

- between the main frame tubes, e.g. suspended from the top tube

WARNING

Group B62J 9/22 is incomplete pending reclassification of documents from groups B62J 9/40 and B62J 11/22.  
Groups B62J 9/40, B62J 11/22, and B62J 9/22 should be considered in order to perform a complete search.

M B62J 9/23

- above or alongside the rear wheel ([B62J 9/26](#) takes precedence)

WARNING

Group B62J 9/23 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, and B62J 11/22.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 9/24

- on specially adapted racks, e.g. for top or side cases

WARNING

Group B62J 9/24 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, and B62J 11/22.  
All groups listed in this Warning should be considered in order to perform a complete search.



M	B62J 9/25	<ul style="list-style-type: none"> <li>• to the fuel tank, e.g. magnetic tank bags</li> </ul> <p><u>WARNING</u> Group B62J 9/25 is incomplete pending reclassification of documents from groups B62J 9/20, B62J 9/40 and B62J 11/22. Groups B62J 9/40, B62J 11/22, and B62J 9/25 should be considered in order to perform a complete search.</p>
M	B62J 9/26	<ul style="list-style-type: none"> <li>• to the saddle, e.g. saddle bags</li> </ul> <p><u>WARNING</u> Group B62J 9/26 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40 and B62J 11/22. Groups B62J 9/40, B62J 11/22, and B62J 9/26 should be considered in order to perform a complete search.</p>
M	B62J 9/27	<ul style="list-style-type: none"> <li>• characterised by mounting arrangements, e.g. quick release arrangements</li> </ul> <p><u>WARNING</u> Group B62J 9/27 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, and B62J 11/22. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 9/28	<ul style="list-style-type: none"> <li>• specially adapted for delivery service, e.g. insulated boxes</li> </ul> <p><u>WARNING</u> Group B62J 9/28 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, and B62J 11/22. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 9/30	<ul style="list-style-type: none"> <li>• characterised by locking arrangements, e.g. top case locks integrated in a vehicle central locking system</li> </ul> <p><u>WARNING</u> Group B62J 9/30 is incomplete pending reclassification of documents from groups B62J 9/00, B62J 9/20, B62J 9/40, and B62J 11/22. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 9/40	<ul style="list-style-type: none"> <li>• specially adapted for tools or spare parts</li> </ul> <p><u>WARNING</u> Group B62J 9/40 is incomplete pending reclassification of documents from group B62J 11/22. Group B62J 9/40 is also impacted by reclassification into groups B62J 9/10, B62J 9/12, B62J 9/14, B62J 9/16, B62J 9/18, B62J 9/20, B62J 9/21, B62J 9/22, B62J 9/23, B62J 9/24, B62J 9/25, B62J 9/26, B62J 9/27, B62J 9/28, and B62J 9/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 11/00	<p><b>Supporting arrangements specially adapted for fastening specific devices to cycles, e.g. supports for attaching maps</b></p> <p><u>WARNING</u> Group B62J 11/00 is impacted by reclassification into groups B62J 11/04, B62J 11/05, B62J 11/10, B62J 11/13, B62J 11/16, B62J 11/19, B62J 11/20, B62J 11/22, B62J 11/26, and B62J 40/10.</p>

All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 11/04

- for bottles

WARNING

Group B62J 11/04 is incomplete pending reclassification of documents from group B62J 11/00.  
Groups B62J 11/00 and B62J 11/04 should be considered in order to perform a complete search.

M B62J 11/05

- for sport articles, e.g. balls or golf clubs

WARNING

Group B62J 11/05 is incomplete pending reclassification of documents from group B62J 11/00.  
Groups B62J 11/00 and B62J 11/05 should be considered in order to perform a complete search.

M B62J 11/10

- for mechanical cables, hoses, pipes or electric wires, e.g. cable guides (mounting or guiding of cables on rear derailleur [B62M 9/127](#); mounting or guiding of cables on front derailleur [B62M 9/137](#))

WARNING

Group B62J 11/10 is incomplete pending reclassification of documents from groups B62J 11/00 and B62J 99/00.  
Groups B62J 11/00, B62J 99/00, and B62J 11/10 should be considered in order to perform a complete search.

M B62J 11/13

- specially adapted for mechanical cables

WARNING

Group B62J 11/13 is incomplete pending reclassification of documents from group B62J 11/00.  
Groups B62J 11/00 and B62J 11/13 should be considered in order to perform a complete search.

M B62J 11/16

- specially adapted for hoses or pipes, e.g. hydraulic, pneumatic, coolant or air filter hoses (air filter hoses [B62J 40/10](#))

WARNING

Group B62J 11/16 is incomplete pending reclassification of documents from groups B62J 11/00 and B62J 99/00.  
Groups B62J 11/00, B62J 99/00, and B62J 11/16 should be considered in order to perform a complete search.

M B62J 11/19

- specially adapted for electric wires

WARNING

Group B62J 11/19 is incomplete pending reclassification of documents from group B62J 11/00.  
Groups B62J 11/00 and B62J 11/19 should be considered in order to perform a complete search.

M B62J 11/20

- Harnesses; Arms, e.g. for dog leads

WARNING

Group B62J 11/20 is incomplete pending reclassification of documents from group B62J 11/00.  
Groups B62J 11/00 and B62J 11/20 should be considered in order to perform a complete search.

M	B62J 11/22	<ul style="list-style-type: none"> <li>• specially adapted for tools (containers for tools <a href="#">B62J 9/40</a>)</li> </ul> <p><u>WARNING</u> Group B62J 11/22 is incomplete pending reclassification of documents from group B62J 11/00. Group B62J 11/22 is also impacted by reclassification into groups B62J 9/10, B62J 9/12, B62J 9/14, B62J 9/16, B62J 9/18, B62J 9/20, B62J 9/21, B62J 9/22, B62J 9/23, B62J 9/24, B62J 9/25, B62J 9/26, B62J 9/27, B62J 9/28, B62J 9/30, and B62J 9/40. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 11/24	<ul style="list-style-type: none"> <li>• specially adapted for helmets (containers under the saddle for helmets <a href="#">B62J 9/14</a>)</li> </ul> <p><u>WARNING</u> Group B62J 11/24 is impacted by reclassification into group B62J 9/14. Groups B62J 11/24 and B62J 9/14 should be considered in order to perform a complete search.</p>
M	B62J 11/26	<ul style="list-style-type: none"> <li>• specially adapted for umbrellas</li> </ul> <p><u>WARNING</u> Group B62J 11/26 is incomplete pending reclassification of documents from groups B62J 11/00 and B62J 99/00. Groups B62J 11/00, B62J 99/00, and B62J 11/26 should be considered in order to perform a complete search.</p>
M	B62J 17/00	<p><b>Weather guards for riders; Fairings or stream-lining parts not otherwise provided for</b></p> <p><u>WARNING</u> Group B62J 17/00 is impacted by reclassification into group B62J 17/10. Groups B62J 17/00 and B62J 17/10 should be considered in order to perform a complete search.</p>
M	B62J 17/10	<ul style="list-style-type: none"> <li>• Ventilation or air guiding devices forming part of fairings</li> </ul> <p><u>WARNING</u> Group B62J 17/10 is incomplete pending reclassification of documents from group B62J 17/00. Groups B62J 17/00 and B62J 17/10 should be considered in order to perform a complete search.</p>
M	B62J 25/00	<p><b>Foot-rests; Knee grips; Passenger hand-grips</b></p> <p><u>WARNING</u> Group B62J 25/00 is impacted by reclassification into groups B62J 25/02, B62J 25/04, B62J 25/06, and B62J 25/08. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 25/02	<ul style="list-style-type: none"> <li>• Knee grips, e.g. on fuel tanks</li> </ul> <p><u>WARNING</u> Group B62J 25/02 is incomplete pending reclassification of documents from group B62J 25/00. Groups B62J 25/00 and B62J 25/02 should be considered in order to perform a complete search.</p>

M	B62J 25/04	<ul style="list-style-type: none"> <li>• Floor-type foot rests</li> </ul> <p><u>WARNING</u> Group B62J 25/04 is incomplete pending reclassification of documents from group B62J 25/00. Groups B62J 25/00 and B62J 25/04 should be considered in order to perform a complete search.</p>
M	B62J 25/06	<ul style="list-style-type: none"> <li>• Bar-type foot rests</li> </ul> <p><u>WARNING</u> Group B62J 25/06 is incomplete pending reclassification of documents from group B62J 25/00. Groups B62J 25/00 and B62J 25/06 should be considered in order to perform a complete search.</p>
M	B62J 25/08	<ul style="list-style-type: none"> <li>• Passengers hand-grips</li> </ul> <p><u>WARNING</u> Group B62J 25/08 is incomplete pending reclassification of documents from groups B62J 25/00 and B62J 99/00. Groups B62J 25/00, B62J 99/00, and B62J 25/08 should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B62J 27/00</b>	<p><b>Safety equipment</b></p> <p><u>WARNING</u> Group B62J 27/00 is impacted by reclassification into groups B62J 27/10, B62J 27/20, and B62J 27/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 27/10	<ul style="list-style-type: none"> <li>• Safety belts specially adapted for motorcycles or the like</li> </ul> <p><u>WARNING</u> Group B62J 27/10 is incomplete pending reclassification of documents from group B62J 27/00. Groups B62J 27/00 and B62J 27/10 should be considered in order to perform a complete search.</p>
M	B62J 27/20	<ul style="list-style-type: none"> <li>• Airbags specially adapted for motorcycles or the like</li> </ul> <p><u>WARNING</u> Group B62J 27/20 is incomplete pending reclassification of documents from group B62J 27/00. Groups B62J 27/00 and B62J 27/20 should be considered in order to perform a complete search.</p>
M	B62J 27/30	<ul style="list-style-type: none"> <li>• Crash bars; Crash bungs</li> </ul> <p><u>WARNING</u> Group B62J 27/30 is incomplete pending reclassification of documents from group B62J 27/00. Groups B62J 27/00 and B62J 27/30 should be considered in order to perform a complete search.</p>
<b>M</b>	<b>B62J 40/00</b>	<p><b>Arrangements of air cleaners specially adapted for cycles</b></p> <p><u>WARNING</u> Group B62J 40/00 is incomplete pending reclassification of documents from group B62J 99/00.</p>

Groups B62J 99/00 and B62J 40/00 should be considered in order to perform a complete search.

M B62J 40/10

- characterised by air duct arrangements

WARNING

Group B62J 40/10 is incomplete pending reclassification of documents from groups B62J 11/00 and B62J 99/00.  
Groups B62J 11/00, B62J 99/00, and B62J 40/10 should be considered in order to perform a complete search.

M B62J 41/00

**Arrangements of radiators, coolant hoses or pipes on cycles**

WARNING

Group B62J 41/00 is incomplete pending reclassification of documents from group B62J 99/00.  
Groups B62J 99/00 and B62J 41/00 should be considered in order to perform a complete search.

M B62J 43/00

**Arrangements of batteries**

WARNING

Group B62J 43/00 is incomplete pending reclassification of documents from group B62J 99/00.  
Group B62J 43/00 is also impacted by reclassification into groups B62J 43/10, B62J 43/13, B62J 43/16, B62J 43/20, B62J 43/23, B62J 43/26, B62J 43/28, and B62J 43/30.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 43/10

- for propulsion

WARNING

Groups B62J 43/10 - B62J 43/16 are incomplete pending reclassification of documents from groups B62J 43/00 and B62J 99/00.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 43/20

- characterised by the mounting

WARNING

Groups B62J 43/20 - B62J 43/28 are incomplete pending reclassification of documents from groups B62J 43/00 and B62J 99/00.  
All groups listed in this Warning should be considered in order to perform a complete search.

M B62J 43/30

- for providing power to equipment other than for propulsion

WARNING

Group B62J 43/30 is incomplete pending reclassification of documents from groups B62J 43/00 and B62J 99/00.  
Groups B62J 43/00, B62J 99/00, and B62J 43/30 should be considered in order to perform a complete search.

U B62J 45/00

**Electrical equipment arrangements specially adapted for use as accessories on cycles, not otherwise provided for**

M	B62J 45/20	<ul style="list-style-type: none"> <li>• Cycle computers as cycle accessories</li> </ul> <p><u>WARNING</u> Group B62J 45/20 is impacted by reclassification into groups B62J 50/20, B62J 50/21, B62J 50/22, B62J 50/225, B62J 50/23, B62J 50/25, B62J 50/26, and B62J 50/28. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 45/40	<ul style="list-style-type: none"> <li>• Sensor arrangements (sensors for control of electrically assisted cycles <a href="#">B62M 6/50</a>); Mounting thereof</li> </ul> <p><u>WARNING</u> Group B62J 45/40 is impacted by reclassification into groups B62J 45/41 – B62J 45/423. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 45/41	<ul style="list-style-type: none"> <li>• • characterised by the type of sensor</li> </ul> <p><u>WARNING</u> Groups B62J 45/41 – B62J 45/416 are incomplete pending reclassification of documents from group B62J 45/40. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 45/42	<ul style="list-style-type: none"> <li>• • characterised by mounting</li> </ul> <p><u>WARNING</u> Groups B62J 45/42 – B62J 45/423 are incomplete pending reclassification of documents from group B62J 45/40. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B62J 50/00	<p><b>Arrangements specially adapted for use on cycles not provided for in main groups <a href="#">B62J 1/00</a> - <a href="#">B62J 45/00</a></b></p> <p><u>WARNING</u> Group B62J 50/00 is incomplete pending reclassification of documents from group B62J 99/00. Groups B62J 99/00 and B62J 50/00 should be considered in order to perform a complete search.</p>
M	B62J 50/15	<ul style="list-style-type: none"> <li>• Cleaning devices</li> </ul> <p><u>WARNING</u> Group B62J 50/15 is incomplete pending reclassification of documents from group B62J 99/00. Groups B62J 99/00 and B62J 50/15 should be considered in order to perform a complete search.</p>
M	B62J 50/20	<ul style="list-style-type: none"> <li>• Information-providing devices</li> </ul> <p><u>WARNING</u> Group B62J 50/20 is incomplete pending reclassification of documents from group B62J 45/20. Group B62J 50/20 is also impacted by reclassification into groups B62J 50/21, B62J 50/22, B62J 50/23, and B62J 50/28. All groups listed in this Warning should be considered in order to perform a complete search.</p>



M	B62J 50/21	<ul style="list-style-type: none"> <li>• • intended to provide information to rider or passenger</li> </ul> <p><u>WARNING</u> Group B62J 50/21 is incomplete pending reclassification of documents from groups B62J 45/20 and B62J 50/20. Groups B62J 45/20, B62J 50/20, and B62J 50/21 should be considered in order to perform a complete search.</p>
M	B62J 50/22	<ul style="list-style-type: none"> <li>• • • electronic, e.g. displays</li> </ul> <p><u>WARNING</u> Group B62J 50/22 is incomplete pending reclassification of documents from groups B62J 45/20 and B62J 50/20. Groups B62J 45/20, B62J 50/20, and B62J 50/22 should be considered in order to perform a complete search.</p>
M	B62J 50/225	<ul style="list-style-type: none"> <li>• • • {Mounting arrangements therefor}</li> </ul> <p><u>WARNING</u> Group B62J 50/225 is incomplete pending reclassification of documents from group B62J 45/20. Groups B62J 45/20 and B62J 50/225 should be considered in order to perform a complete search.</p>
M	B62J 50/23	<ul style="list-style-type: none"> <li>• • • mechanical, e.g. cable-driven trip meters</li> </ul> <p><u>WARNING</u> Group B62J 50/23 is incomplete pending reclassification of documents from groups B62J 45/20 and B62J 50/20. Groups B62J 45/20, B62J 50/20, and B62J 50/23 should be considered in order to perform a complete search.</p>
M	B62J 50/25	<ul style="list-style-type: none"> <li>• • intended to provide information to other road users, e.g. signs or flags</li> </ul> <p><u>WARNING</u> Group B62J 50/25 is incomplete pending reclassification of documents from group B62J 45/20. Group B62J 50/25 is also impacted by reclassification into group B62J 50/26. Groups B62J 45/20, B62J 50/25, and B62J 50/26 should be considered in order to perform a complete search.</p>
M	B62J 50/26	<ul style="list-style-type: none"> <li>• • • Number plates</li> </ul> <p><u>WARNING</u> Group B62J 50/26 is incomplete pending reclassification of documents from groups B62J 45/20 and B62J 50/25. Groups B62J 45/20, B62J 50/25, and B62J 50/26 should be considered in order to perform a complete search.</p>
M	B62J 50/28	<ul style="list-style-type: none"> <li>• • characterised by quick release, e.g. snap on connectors</li> </ul> <p><u>WARNING</u> Group B62J 50/28 is incomplete pending reclassification of documents from groups B62J 45/20 and B62J 50/20. Groups B62J 45/20, B62J 50/20, and B62J 50/28 should be considered in order to perform a complete search.</p>
M	B62J 50/30	<ul style="list-style-type: none"> <li>• Means for ventilation within devices provided on the cycle, e.g. ventilation means in a battery container</li> </ul> <p><u>WARNING</u> Group B62J 50/30 is incomplete pending reclassification of documents from group B62J 99/00.</p>

Groups B62J 99/00 and B62J 50/30 should be considered in order to perform a complete search.

**M B62J 99/00**

**Subject matter not provided for in other groups of this subclass**

**WARNING**

Group B62J 99/00 is impacted by reclassification into groups B62J 11/10, B62J 11/16, B62J 11/26, B62J 25/08, B62J 40/00, B62J 40/10, B62J 41/00, B62J 43/00, B62J 43/10, B62J 43/13, B62J 43/16, B62J 43/20, B62J 43/23, B62J 43/26, B62J 43/28, B62J 43/30, B62J 50/00, B62J 50/15, and B62J 50/30. All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP0617-F (B63B)**

**U B63B 1/00**

**Hydrodynamic or hydrostatic features of hulls or of hydrofoils (hulls peculiar to submarines [B63B 3/13](#); keels [B63B 3/38](#))**

**U B63B 1/16**

- deriving additional lift from hydrodynamic forces

**M B63B 1/24**

- of hydrofoil type (hydrofoils for water sports boards [B63B 32/60](#); hydrofoils for other water sports body supporting devices [B63B 34/40](#))

**WARNING**

Groups B63B 1/24 – B63B 1/30 are impacted by reclassification into groups B63B 32/60, B63B 32/62, B63B 32/64, B63B 32/66, B63B 32/68, B63B 34/40, B63B 34/45, and B63H 8/24. All groups listed in this Warning should be considered in order to perform a complete search.

**M B63B 7/00**

**Collapsible, foldable, inflatable or like vessels (collapsible, foldable or inflatable water sports boards [B63B 32/53](#); collapsible, foldable or inflatable canoes, kayaks or the like [B63B 34/23](#); foldable pontoons [B63B 35/36](#))**

**WARNING**

Groups B63B 7/00 – B63B 2007/065 are impacted by reclassification into groups B63B 32/53 and B63B 34/23. All groups listed in this Warning should be considered in order to perform a complete search.

**U B63B 7/06**

- having parts of non-rigid material

**M B63B 7/08**

- of inflatable (inflatable water sports boards [B63B 32/51](#); inflatable canoes, kayaks or the like being inflatable or having inflatable parts [B63B 34/22](#))

**WARNING**

Groups B63B 7/08 – B63B 7/082 are impacted by reclassification into groups B63B 32/51 and B63B 34/22. All groups listed in this Warning should be considered in order to perform a complete search.

**M B63B 7/085**

- of {Accessories or mountings specially adapted therefor, e.g. seats, sailing kits, motor mountings}

**WARNING**

Groups B63B 7/085 – B63B 7/087 are impacted by reclassification into groups B63B 32/30, B63B 32/51, B63B 32/77, B63B 32/80, B63B 32/83, B63B 32/87, B63B 34/22, B63B 34/26, B63B 34/30, B63B 34/45, B63B 34/565, B63B 32/70, B63H 8/23, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56, B63H 8/58 and B63H 8/70. All groups listed in this Warning should be considered in order to perform a complete search.

**M B63B 32/00****Water sports boards; Accessories therefor**NOTE

This group covers: floating structures having a substantially thin body with respect to the width, usually meant to carry one user, which are specially adapted for water sports or leisure, e.g. surfboards, windsurfing boards, wakeboards, stand-up paddle [SUP] boards or water skis; accessories for such structures.

WARNING

~~Group B63B 32/00 is incomplete pending reclassification of documents from group B63B 35/00.~~

~~Group B63B 32/00 is also impacted by reclassification into groups A63B 69/0093, B63B 32/10, B63B 32/20, B63B 32/22, B63B 32/30, B63B 32/35, B63B 32/40, B63B 32/45, B63B 32/47, B63B 32/50, B63B 32/51, B63B 32/53, B63B 32/55, B63B 32/56, B63B 32/57, B63B 32/59, B63B 32/60, B63B 32/62, B63B 32/64, B63B 32/66, B63B 32/68, B63B 32/70, B63B 32/73, B63B 32/77, B63B 32/80, B63B 32/83, B63B 32/87, B63B 34/30, B63B 34/45, B63B 34/50, B63B 34/52, B63B 34/54, B63B 34/56, B63B 34/565, B63B 34/70, B63B 34/75, B63H 8/23, B63H 8/24, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56, B63H 8/58, B63H 8/70 and E04H 4/0006.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**M B63B 32/10**

- Motor-propelled water sports boards (power-driven personal watercraft [B63B 34/10](#))

WARNING

~~Group B63B 32/10 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.~~

~~Groups B63B 32/00, B63B 35/00, B63B 32/10 should be considered in order to perform a complete search.~~

**M B63B 32/20**

- Boards specially adapted for use in a prone position, e.g. wild-water sledges (towed water sledges [B63B 34/54](#))

WARNING

~~Group B63B 32/20 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.~~

~~Group B63B 32/20 is also impacted by reclassification into groups A63B 69/0093, B63B 32/22, B63B 32/30, B63B 32/40, B63B 32/50, B63B 32/57, B63B 32/59, B63B 34/50, B63B 34/52, B63B 34/54, B63B 34/56, B63B 34/70, B63B 34/75 and E04H 4/0006.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**M B63B 32/22**

- Bodyboards for surfing; Accessories specially adapted therefor

WARNING

~~Group B63B 32/22 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20 and B63B 35/00.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**M B63B 32/30**

- Water skis fastened to the user's feet; Accessories specially adapted therefor

WARNING

~~Group B63B 32/30 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/20, B63B 32/70 and B63B 35/00.~~

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/35

- {Bindings}

WARNING

Group B63B 32/35 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.

Group B63B 32/35 is also impacted by reclassification into group B63B 32/47.

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/40

- Twintip boards; Wakeboards; Surfboards; Windsurfing boards; Paddle boards, e.g. SUP boards; Accessories specially adapted therefor

WARNING

Group B63B 32/40 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 32/50 and B63B 35/00.

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/45

- {Fixation means for feet of the board user, e.g. footstraps}

WARNING

Group B63B 32/45 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.

Group B63B 32/45 is also impacted by reclassification into groups B63B 32/47 and B63B 32/77.

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/47

- • {Bindings, e.g. wakeboard bindings}

WARNING

Group B63B 32/47 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/35, B63B 32/45 and B63B 35/00.

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/50

- Boards characterised by their constructional features

WARNING

Group B63B 32/50 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20 and B63B 35/00.

Group B63B 32/50 is also impacted by reclassification into groups B63B 32/40, B63B 32/57 and B63B 32/59.

All groups listed in this Warning should be considered in order to perform a complete search.

M B63B 32/51

- • Inflatable boards, e.g. drop-stitch inflatable boards

WARNING

Group B63B 32/51 is incomplete pending reclassification of documents from groups B63B 7/08, B63B 7/082, B63B 7/085, B63B 7/087, B63B 32/00 and B63B 35/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B63B 32/53
- Sectionalised boards, e.g. modular, dismountable or foldable boards
- WARNING**  
 Group B63B 32/53 is incomplete pending reclassification of documents from groups B63B 7/00, B63B 2007/003, B63B 2007/006, B63B 7/02, B63B 7/04, B63B 7/06, B63B 2007/065, B63B 32/00 and B63B 35/00.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/55
- Multihull boards, e.g. of catamaran type
- WARNING**  
 Group B63B 32/55 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.  
 Groups B63B 32/00, B63B 35/00 and B63B 32/55 should be considered in order to perform a complete search.
- M B63B 32/56
- Boards convertible into vessels or other types of water sports boards, e.g. into sailboats, canoes or water-cycles
- WARNING**  
 Group B63B 32/56 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00.  
 Groups B63B 32/00, B63B 35/00 and B63B 32/56 should be considered in order to perform a complete search.
- M B63B 32/57
- Boards characterised by the material, e.g. laminated materials
- WARNING**  
 Group B63B 32/57 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 32/50 and B63B 35/00.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/59
- Boards characterised by their manufacturing process, e.g. moulded or 3D printed
- WARNING**  
 Group B63B 32/59 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 32/50 and B63B 35/00.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/60
- Board appendages, e.g. fins, hydrofoils or centre boards
- WARNING**  
 Group B63B 32/60 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 32/00 and B63B 35/00.  
 Group B63B 32/60 is also impacted by reclassification into groups B63B 32/62 and B63B 32/64.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/62
- characterised by the material, e.g. laminated materials; characterised by their manufacturing process
- WARNING**  
 Group B63B 32/62 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 32/00, B63B 32/60 and B63B 35/00.  
 All groups listed in this Warning should be considered in order to perform a complete search.

- M B63B 32/64
- Adjustable, e.g. by adding sections, by removing sections or by changing orientation or profile
- WARNING**  
Group B63B 32/64 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 32/00, B63B 32/60 and B63B 35/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/66
- Arrangements for fixation to the board, e.g. fin boxes or foil boxes
- WARNING**  
Group B63B 32/66 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 32/00, B63B 35/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/68
- Mast foot attachments, e.g. mast foot rails
- WARNING**  
Group B63B 32/68 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 32/00 and B63B 35/00. Group B63B 32/68 is also impacted by reclassification into group B63H 8/24. All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/70
- Accessories not specially adapted for a particular type of board, e.g. paddings or buoyancy elements
- WARNING**  
Group B63B 32/70 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00 and B63B 35/00. Group B63B 32/70 is also impacted by reclassification into groups B63B 32/30, B63B 32/77, B63B 32/80, B63B 32/83, B63B 32/87, B63B 34/30, B63B 34/45, B63B 34/565, B63H 8/23, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56, B63H 8/58 and B63H 8/70. All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/73
- for tethering users or objects to the board, e.g. leashes
- WARNING**  
Group B63B 32/73 is incomplete pending reclassification of documents from groups B63B 32/00 and B63B 35/00. Groups B63B 32/00, B63B 35/00 and B63B 32/73 should be considered in order to perform a complete search.
- M B63B 32/77
- Arrangements for fixation of accessories to the board, e.g. inserts or rails
- WARNING**  
Group B63B 32/77 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/45, B63B 32/70 and B63B 35/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 32/80
- Arrangements specially adapted for stowing or transporting water sports boards
- WARNING**  
Group B63B 32/80 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70 and B63B 35/00.



~~Group B63B 32/80 is also impacted by reclassification into groups B63B 32/83, B63B 32/87 and B63H 8/70.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 32/83
- for stowing, e.g. racks or straps

WARNING

~~Group B63B 32/83 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 32/80 and B63B 35/00.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 32/87
- for carrying, e.g. board bags

WARNING

~~Group B63B 32/87 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 32/80 and B63B 35/00.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 34/00
- Vessels specially adapted for water sports or leisure; Body-supporting devices specially adapted for water sports or leisure (water sports boards [B63B 32/00](#); swimming frameworks [A63B 35/00](#); propulsion arrangements actuated by muscle power [B63H 16/00](#))**

NOTE

This group covers floating structures supporting the user's body and moving on the water surface, which are specially adapted for water sports or leisure.

WARNING

~~Group B63B 34/00 is incomplete pending reclassification of documents from group B63B 35/00.~~  
~~Group B63B 34/00 is also impacted by reclassification into groups B63B 34/10 and B63B 34/15.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 34/10
- Power-driven personal watercraft, e.g. water scooters (water jet propulsion [B63H 11/00](#); jet steering [B63H 25/46](#)); Accessories therefor

WARNING

~~Group B63B 34/10 is incomplete pending reclassification of documents from groups B63B 34/00 and B63B 35/00.~~  
~~Group B63B 34/10 is also impacted by reclassification into group B63B 34/15.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 34/15
- for hydroflight sports

WARNING

~~Group B63B 34/15 is incomplete pending reclassification of documents from groups B63B 34/00, B63B 34/10, B63B 35/00 and B64C 39/026.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63B 34/20
- Canoes, kayaks or the like
- WARNING**  
Group B63B 34/20 is impacted by reclassification into groups B63B 34/21, B63B 34/22 and B63B 34/23.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/21
- • characterised by constructional features
- WARNING**  
Group B63B 34/21 is incomplete pending reclassification of documents from group B63B 34/20.  
Groups B63B 34/20 and B63B 34/21 should be considered in order to perform a complete search.
- M B63B 34/22
- • • Inflatable; having inflatable parts
- WARNING**  
Group B63B 34/22 is incomplete pending reclassification of documents from groups B63B 7/08, B63B 7/082, B63B 7/085, B63B 7/087 and B63B 34/20.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/23
- • • Sectionalised, e.g. modular, collapsible or foldable
- WARNING**  
Group B63B 34/23 is incomplete pending reclassification of documents from groups B63B 7/00, B63B 2007/003, B63B 2007/006, B63B 7/02, B63B 7/04, B63B 7/06, B63B 2007/065 and B63B 34/20.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/26
- Accessories for canoes, kayaks or the like (effecting propulsion by muscle power [B63H 16/00](#); outboard propulsion units [B63H 20/00](#))
- WARNING**  
Group B63B 34/26 is incomplete pending reclassification of documents from groups B63B 7/085 and B63B 7/087.  
Groups B63B 7/085 and B63B 7/087 and B63B 34/26 should be considered in order to perform a complete search.
- M B63B 34/30
- Rowing boats specially adapted for racing; Accessories therefor (effecting propulsion by rowing [B63H 16/00](#))
- WARNING**  
Group B63B 34/30 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/40
- Body-supporting structures dynamically supported by foils under water
- WARNING**  
Group B63B 34/40 is incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63B 34/45
- Accessories therefor
- WARNING**  
Group B63B 34/45 incomplete pending reclassification of documents from groups B63B 1/24 - B63B 1/30, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/50
- Body-supporting buoyant devices, e.g. bathing boats or water cycles (swimming aids [A63B 31/00](#))
- WARNING**  
Group B63B 34/50 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20 and B63B 35/00.  
Group B63B 34/50 is also impacted by reclassification into groups B63B 34/52, B63B 34/54 and B63B 34/56.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/52
- Inflatable or partly inflatable
- WARNING**  
Group B63B 34/52 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/50 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/54
- specially adapted for being towed, e.g. banana boats, water sledges or towed buoys (arrangements for towing [B63B 34/60](#))
- WARNING**  
Group B63B 34/54 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/50 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/56
- for use in a standing position, e.g. water shoes, water walking devices or buoyant skis
- WARNING**  
Group B63B 34/56 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/50 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/565
- Accessories, e.g. sticks for water walking
- WARNING**  
Group B63B 34/565 is incomplete pending reclassification of documents from groups B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63B 34/70
- Arrangements on vessels specially adapted for generating waves for surfing, wakeboarding or the like, e.g. ballast tanks
- WARNING**  
Group B63B 34/70 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20 and B63B 35/00.  
Group B63B 34/70 is also impacted by reclassification into groups A63B 69/0093, B63B 34/75 and E04H 4/0006.

All groups listed in this Warning should be considered in order to perform a complete search.

- M B63B 34/75
- Arrangements of wake plates

**WARNING**

Group B63B 34/75 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/70 and B63B 35/00.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63B 35/00
- Vessels or similar floating structures specially adapted for specific purposes and not otherwise provided for**

**WARNING**

Group B63B 35/00 is impacted by reclassification into groups A63B 69/0093, B63B 32/00 - B63B 32/87, B63B 34/00, B63B 34/10, B63B 34/15, B63B 34/30, B63B 34/45 - B63B 34/565, B63B 34/70, B63B 34/75, B63H 8/23, B63H 8/24, B63H 8/25, B63H 8/50 - B63H 8/70 and E04H 4/0006.  
All groups listed in this Warning should be considered in order to perform a complete search.

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- M B63H 8/00
- Sail or rigging arrangements specially adapted for water sports boards, e.g. for windsurfing or kitesurfing**

**WARNING**

Group B63H 8/00 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/04 and B63H 9/06.  
Group B63H 8/00 is also impacted by reclassification into groups B63H 8/20, B63H 8/23, B63H 8/25, B63H 8/40, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56, B63H 8/58 and B63H 8/70.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/10
- Kite-sails; Kite-wings; Control thereof; Safety means therefor

**WARNING**

Group B63H 8/10 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/04, B63H 9/06 and B64C 31/06.  
Group B63H 8/10 is also impacted by reclassification into groups B63H 8/12, B63H 8/14, B63H 8/23, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56, B63H 8/58 and B63H 8/70.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/12
- Kites with inflatable closed compartments

**WARNING**

Group B63H 8/12 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 8/10, B63H 9/04, B63H 9/06 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/14
- Ram-air kites, i.e. kites at least partly inflated by air entering their leading edges during use
- WARNING**  
Group B63H 8/14 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 8/10, B63H 9/04, B63H 9/06 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/16
- Control arrangements, e.g. control bars or control lines
- WARNING**  
Group B63H 8/16 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.  
Group B63H 8/16 is also impacted by reclassification into groups B63H 8/18, B63H 8/23, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56 and B63H 8/58.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/18
- Arrangements for connecting the user to a kite-sail; Kite-safety means, e.g. chicken loops, safety leashes or quick release mechanisms
- WARNING**  
Group B63H 8/18 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 8/16, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/20
- Rigging arrangements involving masts, e.g. for windsurfing
- WARNING**  
Group B63H 8/20 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 8/00, B63H 9/04 and B63H 9/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/21
- Wishbones
- WARNING**  
Group B63H 8/21 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/04 and B63H 9/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/22
- for connecting wishbones to the mast
- WARNING**  
Group B63H 8/22 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/04 and B63H 9/06.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/23
- for tensioning or trimming the clew of the sail, e.g. outhaul trimmers
- WARNING**  
Group B63H 8/23 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 8/52, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/24
- Arrangements for connecting the rigging to a board
- WARNING**  
Group B63H 8/24 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 1/24 - B63B 1/30, B63B 32/00, B63B 32/68, B63B 35/00, B63H 9/04 and B63H 9/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/25
- Arrangements for connecting the sail to a mast foot, e.g. downhaul tensioners or mast foot extensions
- WARNING**  
Group B63H 8/25 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 8/52, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/40
- Arrangements for improving or maintaining the aerodynamic profile of sails, e.g. cambers, battens or foil profiles
- WARNING**  
Group B63H 8/40 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 8/00, B63H 9/04, B63H 9/06 and B63H 9/065.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/50
- Accessories, e.g. repair kits or kite launching aids
- WARNING**  
Group B63H 8/50 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 8/52
- Handheld cleats, cams or hooks for tensioning the downhaul or outhaul of a windsurfing sail
- WARNING**  
Group B63H 8/52 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087,

~~B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.~~  
Group B63H 8/52 is also impacted by reclassification into groups B63H 8/23 and B63H 8/25.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/54
- Arrangements for connecting the user or the harness to the wishbone, e.g. trapeze lines or handgrips

**WARNING**

~~Group B63H 8/54 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.~~  
Group B63H 8/54 is also impacted by reclassification into groups B63H 8/56 and B63H 8/58.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/56
- Devices to distribute the user's load, e.g. harnesses

**WARNING**

~~Group B63H 8/56 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 8/54, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.~~  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/58
- Spreader bars; Hook connection arrangements

**WARNING**

~~Group B63H 8/58 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 35/00, B63H 8/00, B63H 8/10, B63H 8/16, B63H 8/54, B63H 9/04, B63H 9/06, B63H 9/072 and B64C 31/06.~~  
All groups listed in this Warning should be considered in order to perform a complete search.

- M B63H 8/70
- Arrangements for handling, stowing or transport thereof

**WARNING**

~~Group B63H 8/70 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63B 7/085, B63B 7/087, B63B 32/00, B63B 32/70, B63B 32/80, B63B 35/00, B63H 8/00, B63H 8/10, B63H 9/04, B63H 9/06 and B64C 31/06.~~  
All groups listed in this Warning should be considered in order to perform a complete search.

- U B63H 9/00
- Marine propulsion provided directly by wind power (wind-motors driving underwater propulsive elements [B63H 13/00](#))



- M B63H 9/04
- using sails or like wind-catching surfaces (sail or rigging arrangements specially adapted for water sports boards, e.g. for windsurfing or kitesurfing [B63H 8/00](#))
- WARNING  
 Group B63H 9/04 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006 and B62B 15/00 - B62B 15/005.  
 Group B63H 9/04 is also impacted by reclassification into groups B63H 8/00 - B63H 8/70.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/06
- • Types of sail; Constructional features of sails; Arrangements thereof on vessels
- WARNING  
 Group B63H 9/06 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00, B62B 15/001, B62B 15/002, B62B 15/003, B62B 15/004 and B62B 15/005.  
 Group B63H 9/06 is also impacted by reclassification into groups B63H 8/00 - B63H 8/70.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/061
- • • Rigid sails; Aerofoil sails
- WARNING  
 Group B63H 9/061 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006 and B62B 15/00 - B62B 15/005.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/0615
- • • {Inflatable aerofoil sails}
- WARNING  
 Group B63H 9/0615 is incomplete pending reclassification of documents from group A63C 5/11.  
 Groups A63C 5/11 and B63H 9/0615 should be considered in order to perform a complete search.
- M B63H 9/0621
- • • {Rigid sails comprising one or more pivotally supported panels}
- WARNING  
 Group B63H 9/0621 is incomplete pending reclassification of documents from group A63C 5/11.  
 Groups A63C 5/11 and B63H 9/0621 should be considered in order to perform a complete search.
- M B63H 9/0628
- • • • {the panels being pivotable about horizontal axes}
- WARNING  
 Group B63H 9/0628 is incomplete pending reclassification of documents from group A63C 5/11.  
 Groups A63C 5/11 and B63H 9/0628 should be considered in order to perform a complete search.
- M B63H 9/0635
- • • • {the panels being pivotable about vertical axes}
- WARNING  
 Group B63H 9/0635 is incomplete pending reclassification of documents from group A63C 5/11.

Groups A63C 5/11 and B63H 9/0635 should be considered in order to perform a complete search.

- M B63H 9/065
  - • • Battens (for water sports board sails [B63H 8/40](#))

**WARNING**  
Group B63H 9/065 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006 and B62B 15/00 - B62B 15/005.  
Group B63H 9/065 is also impacted by reclassification into group B63H 8/40.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/067
  - • • Sails characterised by their construction or manufacturing process

**WARNING**  
Group B63H 9/067 is incomplete pending reclassification of documents from groups A63C 5/11, B60K 16/00, B60K 2016/006, B62B 15/00, B62B 15/001, B62B 15/002, B62B 15/003, B62B 15/004 and B62B 15/005.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/0671
  - • • • {Moulded sails}

**WARNING**  
Group B63H 9/0671 is incomplete pending reclassification of documents from group A63C 5/11.  
Groups A63C 5/11 and B63H 9/0671 should be considered in order to perform a complete search.
- M B63H 9/0673
  - • • • {Flying sails, e.g. spinnakers or gennakers}

**WARNING**  
Group B63H 9/0673 is incomplete pending reclassification of documents from group A63C 5/11.  
Groups A63C 5/11 and B63H 9/0673 should be considered in order to perform a complete search.
- M B63H 9/0678
  - • • • {Laminated sails}

**WARNING**  
Group B63H 9/0678 is incomplete pending reclassification of documents from group A63C 5/11.  
Groups A63C 5/11 and B63H 9/0678 should be considered in order to perform a complete search.
- M B63H 9/068
  - • • Sails pivotally mounted at mast tip

**WARNING**  
Group B63H 9/068 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 - B62B 15/005, B63H 9/069 and B64C 31/06.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B63H 9/069
  - • • Kite-sails for vessels

**WARNING**  
Group B63H 9/069 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085,

~~A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 – B62B 15/005 and B64C 31/06.~~

~~Group B63H 9/069 is also impacted by reclassification into groups B63H 9/068 and B63H 9/071.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63H 9/071
- • • for use in combination with other propulsion means, e.g. for improved fuel economy

WARNING

~~Group B63H 9/071 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 – B62B 15/005, B63H 9/069 and B64C 31/06.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B63H 9/072
- • • Control arrangements, e.g. for launching or recovery

WARNING

~~Group B63H 9/072 is incomplete pending reclassification of documents from groups A63C 5/11, A63H 27/08, A63H 27/082, A63H 27/085, A63H 27/087, B60K 16/00, B60K 2016/006, B62B 15/00 – B62B 15/005 and B64C 31/06.~~

~~Group B63H 9/072 is also impacted by reclassification into groups B63H 8/16, B63H 8/18, B63H 8/23, B63H 8/25, B63H 8/50, B63H 8/52, B63H 8/54, B63H 8/56 and B63H 8/58.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**Project: RP10455 (B64C)**

**B64C 27/00**  
~~B64C 39/00~~  
**B64C 99/00**

Aircraft kinds and components not otherwise provided for

**Project: RP0617-F (B64C)**

**U B64C 31/00** **Aircraft intended to be sustained without power plant; Powered hang-glider-type aircraft; Microlight-type aircraft**

- M B64C 31/06
- Kites (hang-gliders [B64C 31/028](#); toy aspects [A63H 27/08](#); towed targets [F41J](#); for propelling water sports boards [B63H 8/10](#); for propelling vessels [B63H 9/069](#))

WARNING

~~Group B64C 31/06 is impacted by reclassification into groups B63H 8/10 – B63H 8/18, B63H 8/23, B63H 8/25, B63H 8/50 – B63H 8/70 and B63H 9/068 – B63H 9/072.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

**U B64C 39/00** **Aircraft not otherwise provided for**

- U B64C 39/02
- characterised by special use
- M B64C 39/026
- {for use as personal propulsion unit}

WARNING

~~Group B64C 39/026 is impacted by reclassification into group B63B 34/15.~~

Groups B64C 39/026 and B63B 34/15 should be considered in order to perform a complete search.

**Project: RP10455 (B64C)**

- U B64C 39/12 · Canard-type aircraft
- N **B64C 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10458 (B64D)**

- M B64D 13/00 **Arrangements or adaptations of air-treatment apparatus for aircraft crew or passenger, or freight space; {Arrangements or adaptations of air-treatment apparatus for aircraft crew or passengers, or freight space {, or structural parts of the aircraft aircraft} (treatment rooms with artificial climate for medical purposes [A61G 10/02](#); respiratory apparatus in general [A62B](#); for ~~for~~ vehicles in general [B60H](#))**

**Project: RP10455 (B64G)**

- U B64G 7/00 **Simulating cosmonautic conditions, e.g. for conditioning crews (simulators for teaching or training purposes [G09B 9/00](#))**
- U B64G 2007/005 · {Space simulation vacuum chambers}
- D B64G 9/00 **{Cosmonautics not otherwise provided for} <administratively transferred to [B64G 99/00](#)>**
- N **B64G 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10458 (B64G)**

- D B64G 2700/00 **Space travel; artificial satellites; space exploration**
- D B64G 2700/24 · Stabilisation, orientation and oscillation damping of spacecraft
- D B64G 2700/66 · Aerials and collapsible aerials of spacecraft

**Project: RP0128-F (B65D)**

- U B65D 33/00 **Details of, or accessories for, sacks or bags**
- U B65D 33/16 · End- or aperture-closing arrangements or devices (valves of valve bags {[B65D 31/14](#)} ; removable stoppers or caps [B65D 39/00](#), [B65D 41/00](#); closures of filled bags [B65D 77/10](#); closing filled bags in association with packaging [B65B 7/00](#), [B65B 51/00](#))
- U B65D 33/25 · · Riveting; Dovetailing; Screwing; using press buttons or slide fasteners
- M B65D 33/2508 · · · {using slide fasteners with interlocking members having a substantially uniform section throughout the length of the fastener; Sliders therefor}

**WARNING**

Groups B65D 33/2508 – B65D 33/259 are incomplete pending reclassification of documents from group B65D 33/2591.  
Groups B65D 33/2508 – B65D 33/259 and B65D 33/2591 should be considered in order to perform a complete search.

- D B65D 33/2591 · · · {using slide fasteners with interlocking members having a substantially uniform section throughout the length of the fastener and operated with a slider}

**WARNING**

Group B65D 33/2591 is no longer used for the classification of documents as of February 1, 2020.

B65D 33/2591

(Frozen)

(continued)

The content of this group is being reclassified into groups B65D 33/2508–  
B65D 33/259–

All groups listed in this Warning should be considered in order to perform a  
complete search.

M B65D 33/34

- with special means for indicating unauthorised opening {(B65D 33/2516,  
B65D 33/2585 take precedence)}

**WARNING**

Group B65D 33/34 is impacted by reclassification into group B65D 33/2585–  
Groups B65D 33/34 and B65D 33/2585 should be considered in order to  
perform a complete search.

M B65D 57/00

**Internal frames or supports for flexible articles, e.g. stiffeners; Separators  
for articles packaged in stacks or groups, e.g. for preventing adhesion of  
sticky articles {(B65D 71/70 takes precedence)}**

**WARNING**

Group B65D 57/00 is impacted by reclassification into groups B65D 57/00–  
B65D 57/006–

All groups listed in this Warning should be considered in order to perform a  
complete search.

M B65D 57/002

- {Separators for articles packaged in stacks or groups, e.g. stacked or nested}

**WARNING**

Groups B65D 57/002 – B65D 57/006 are incomplete pending reclassification of  
documents from group B65D 57/00–

Groups B65D 57/002 – B65D 57/006 and B65D 57/00 should be considered in  
order to perform a complete search.

U B65D 79/00

**Kinds or details of packages, not otherwise provided for**

M B65D 79/005

- {Packages having deformable parts for indicating or neutralizing internal  
pressure-variations by other means than venting}

**WARNING**

Group B65D 79/005 is impacted by reclassification into groups B65D 79/005–  
B65D 79/0087–

All groups listed in this Warning should be considered in order to perform a  
complete search.

M B65D 79/008

- {the deformable part being located in a rigid or semi-rigid container, e.g. in  
bottles or jars}

**WARNING**

Groups B65D 79/008 – B65D 79/0084 are incomplete pending reclassification  
of documents from group B65D 79/005–

Groups B65D 79/008 – B65D 79/0084 and B65D 79/005 should be  
considered in order to perform a complete search.

M B65D 79/0087

- {the deformable part being located in a closure, e.g. in caps or lids}

**WARNING**

Group B65D 79/0087 is incomplete pending reclassification of documents  
from group B65D 79/005–

Groups B65D 79/0087 and B65D 79/005 should be considered in order to  
perform a complete search.

- U B65D 85/00** Containers, packaging elements or packages, specially adapted for particular articles or materials ([B65D 71/00](#), [B65D 83/00](#) take precedence; hand implements or travelling equipment [A45C](#); cosmetic or toilet equipment [A45D](#); packages for surgical knives, scalpels or blades therefor [A61B 17/3215](#); containers specially adapted for medical or pharmaceutical purposes [A61J 1/00](#); paint cans [B44D 3/12](#); oil cans [F16N 3/04](#); containers for carrying small arms [F41C 33/06](#); packaging of ammunition or explosive charges [F42B 39/00](#); containers for record carriers, specially adapted for cooperation with the recording or reproducing apparatus [G11B 23/00](#))
- NOTE  
Attention is drawn to Note (5) following the title of this subclass.
- U B65D 85/70** · {for materials not otherwise provided for}
- U B65D 85/804** · · Disposable containers or packages with contents which are {mixed,} infused or dissolved in situ {, i.e. without having been previously removed from the package ([B65D 65/46](#) takes precedence; tea infusers [A47G 19/16](#); spoons or stirrers comprising beverage additives [A47G 21/04](#))}
- M B65D 85/8043** · · · {Packages adapted to allow liquid to pass through the contents ([B65D 85/808](#) takes precedence; filters or reusable cartridges for coffee or tea makers, not used as packages [A47J 31/06](#))}
- WARNING  
Group B65D 85/8043 is impacted by reclassification into groups B65D 85/8043 and B65D 85/8049 – B65D 85/8067.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B65D 85/8046** · · · · {Pods, i.e. closed containers made only of filter paper or similar material}
- WARNING  
Group B65D 85/8046 is impacted by reclassification into groups B65D 85/8046 – B65D 85/8067.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M B65D 85/8049** · · · · {Details of the inlet}
- WARNING  
Group B65D 85/8049 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046.  
Groups B65D 85/8043, B65D 85/8046, and B65D 85/8049 should be considered in order to perform a complete search.
- M B65D 85/8052** · · · · {Details of the outlet}
- WARNING  
Group B65D 85/8052 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046.  
Groups B65D 85/8043, B65D 85/8046, and B65D 85/8052 should be considered in order to perform a complete search.
- M B65D 85/8055** · · · · {Means for influencing the liquid flow inside the package}
- WARNING  
Group B65D 85/8055 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046.  
Groups B65D 85/8043, B65D 85/8046, and B65D 85/8055 should be considered in order to perform a complete search.

- M B65D 85/8058 . . . {Coding means for the contents}
- WARNING  
Group B65D 85/8058 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046. Groups B65D 85/8043, B65D 85/8046, and B65D 85/8058 should be considered in order to perform a complete search.
- M B65D 85/8061 . . . {Filters}
- WARNING  
Group B65D 85/8061 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046. Groups B65D 85/8043, B65D 85/8046, and B65D 85/8061 should be considered in order to perform a complete search.
- M B65D 85/8064 . . . {Sealing means for the interface with the processing machine}
- WARNING  
Group B65D 85/8064 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046. Groups B65D 85/8043, B65D 85/8046, and B65D 85/8064 should be considered in order to perform a complete search.
- M B65D 85/8067 . . . {Packages for several ingredients}
- WARNING  
Group B65D 85/8067 is incomplete pending reclassification of documents from groups B65D 85/8043 and B65D 85/8046. Groups B65D 85/8043, B65D 85/8046, and B65D 85/8067 should be considered in order to perform a complete search.

## Project: RP10452 (B65H)

- M B65H 1/00 - **B65H 15/00**  
**B65H 11/00** **Feeding articles to machines; Separating articles from piles; Pile supports (manipulators B25J)**
- M B65H 3/00 **Separating articles from piles (associating, collating, or gathering articles B65H 39/00; machines for separating superposed webs B65H 41/00; unpiling thin material combined with folding B65H 45/26; combinations of piling and depiling operations, of interest apart from the single operation of piling or depiling B65H 83/00 {, B07C 1/02, G07D 11/50})**
- U B65H 5/00 **Feeding articles separated from piles; Feeding articles to machines ({B65H 9/00 takes precedence; } identical mechanisms or parts for delivering or advancing articles from machines B65H 29/00; recirculating articles B65H 85/00 {, G03B 27/6257})**
- M B65H 5/002 . {Adaptations of counting devices-(~~delivery of articles from machines B65H 29/001~~)}
- U B65H 7/00 **Controlling article feeding, separating, pile-advancing, or associated apparatus, to take account of incorrect feeding, absence of articles, or presence of faulty articles**



- M B65H 16/00 - B65H 27/00** **Feeding webs to or from machines; Winding or unwinding webs; Splicing webs** (~~web-delivering apparatus incorporating devices for performing auxiliary operations B65H 35/00, B65H 37/00; associating two or more webs B65H 39/16; winding or unwinding metal band or like flexible metallic material during manufacture B21C; {cutting machines or devices in general B26D} ; inselective printers, e.g. typewriters, ink-ribbon mechanisms B41J; in cinematographic or photographic apparatus G03B; winding, unwinding, or feeding tape to, in, or from, information processing apparatus G06, G11B)~~)
- U B65H 18/00** **Winding webs**
- U B65H 18/08** · Web-winding mechanisms
- U B65H 18/14** · · Mechanisms in which power is applied to web roll, e.g. to effect continuous advancement of web
- U B65H 18/16** · · · by friction roller
- M B65H 18/18** · · · to effect step-by-step advancement of web ~~{(not used)}~~
- M B65H 27/00** **Special constructions, e.g. surface features, of feed or guide rollers and surfaces thereof for webs** (~~{tentering rollers B65H 23/02}~~; rollers in general [F16C 13/00](#))
- M B65H 35/00** **Delivering articles from cutting or line-perforating machines; Article or web delivery apparatus incorporating cutting or line-perforating devices, e.g. of the kinds specified below** **adhesive tape dispensers** (cutting or perforating machines or devices in general [B26D](#), [B26F](#))
- M B65H 39/00** **Associating, collating, or gathering articles or webs** (**combinations of piling and depiling operations, of interest apart from the single operation of piling or depiling B65H 83/00**; machines for both collating or gathering and permanently attaching together sheets or signatures [B42C 1/00](#))
- U B65H 43/00** **Use of control, checking, or safety devices, e.g. automatic devices comprising an element for sensing a variable**
- U B65H 45/00** **Folding thin material (specially adapted for the manufacture or treatment of particular products, see appropriate subclasses, e.g. [D06F 89/00](#))**
- M B65H 45/02** · ~~Folding limp material~~ ~~{(shaping of plastics or by bending or folding B29C 53/00; folding sheets, blanks or webs for box, carton, envelope or bag making B31B 50/26, B31B 70/26; shaping of paper or cardboard by bending or folding B31F 1/0003)}~~ **Folding limp material** without application of pressure to define or form crease lines (winding or unwinding fabrics for feeding to or from machines [B65H 16/00](#) - [B65H 27/00](#); folding garments for packaging purposes [B65B](#); folding fabrics in sewing machines [D05B](#))
- M B65H 49/00 - B65H 73/00** **Unwinding, paying-out, forwarding, winding, coiling, or depositing; filamentary material** (~~devices specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material B65H 75/34; working and processing wire B21F, B21G; unwinding, paying-out, forwarding, or winding ropes or cables in load-moving apparatus B61B; B65G; B66; creels, warping, beaming, or leasing machines or methods for textile manufacturing purposes D02H~~)
- U B65H 49/00** **Unwinding or paying-out filamentary material; Supporting, storing or transporting packages from which filamentary material is to be withdrawn or paid-out** (winding [B65H 54/00](#); bobbins, tubes or other cores for packages [B65H 75/00](#))

- M B65H 49/18 · Methods or apparatus in which packages rotate (~~flyers or other guides assisting paying-out B65H 57/00~~; supports or holders, for storing and repeatedly paying-out and rewinding lengths of material provided for particular purposes [B65H 75/34](#))
- M B65H 49/36 · Securing packages to supporting devices (~~arrangements for applying packages to, or removing from, supports B65H 65/00, B65H 67/00~~ *replacing or removing cores, receptacles, or completed packages at paying-out, winding, or depositing stations B65H 67/00*)
- U B65H 63/00 **Warning or safety devices, e.g. automatic fault detectors, stop-motions (safety devices in general [F16P](#); indicating devices in general [G08B](#) )**; **Quality control of the package**
- M B65H 63/06 · responsive to presence of irregularities in running material, e.g. for severing the material at irregularities {~~Control of the correct working of the yarn cleaner~~; *Control of the correct working of the yarn cleaner*}
- M B65H 75/00 - ~~B65H 99/00~~ *B65H 81/00* **Methods, apparatus, or devices of general interest or not otherwise provided for in connection with the handling of webs, tapes, or filamentary materials (~~unwinding, paying-out, forwarding or winding ropes or cables in load-moving apparatus B61B, B65G, B66~~)**
- U B65H 75/00 **Storing webs, tapes, or filamentary material, e.g. on reels (fishing reels [A01K 89/00](#); storing means for record carriers, specially adapted for cooperation with the recording or reproducing apparatus [G11B 23/02](#))**
- U B65H 75/02 · Cores, formers, supports, or holders for coiled, wound, or folded material, e.g. reels, spindles, bobbins, cop tubes, cans {, mandrels or chucks} (packaging aspects [B65D 85/67](#))
- U B65H 75/34 · · specially adapted or mounted for storing and repeatedly paying-out and restoring lengths of material provided for particular purposes, e.g. anchored hoses, power cables (retractors for storing flexible hoses as accessories of dental work stands [A61G 15/18](#); vehicle safety belt retractors [B60R 22/34](#); hose-storing devices in apparatus or devices for transferring liquids from bulk storage containers or reservoirs into vehicles or portable containers [B67D 7/40](#); clothes-line supports [D06F 53/00](#); spring drums for liftable blinds with horizontal lamellae [E06B 9/322](#); spring drums or tape drums for roll-type closures or roller blinds [E06B 9/56](#); hauling- or hoisting-chains with arrangements for holding electric cables, hoses or the like [F16G 13/16](#); devices for guiding pipes, cables or protective tubing, between relatively movable points, e.g. movable channels, [F16L 3/01](#); flexible rulers or tapes with scales [G01B 3/10](#); electrical features of stored material, see the relevant subclasses, e.g. [H02G](#))
- U B65H 75/38 · · · involving the use of a core or former internal to, and supporting, a stored package of material
- U B65H 75/44 · · · · Constructional details
- M B65H 75/4473 · · · · {without arrangements or adaptations for rotating the core or former (~~cores or formers which are not specially adapted for repeatedly paying-out and re-storing lengths of material B65H 75/02~~)}
- M B65H 75/48 · · · · Automatic ~~restoring devices~~ {*re-storing devices (B65H 75/4418 takes precedence)*}
- M B65H 2401/00 **Materials used ~~in construction, properties~~ *for the handling apparatus or parts thereof; Properties thereof***
- U B65H 2401/10 · Materials
- T B65H 2401/11 · · ~~Macromolecular composition~~ *Polymer compositions*
- T B65H 2401/112 · · · ~~Fiber reinforced composition~~ *Fibre reinforced*

- D B65H 2401/1121 . . . . Carbon fibre composition  
<administratively transferred to [B65H 2401/112](#) ADD>
- D B65H 2401/113 . . . . Polymer composition  
<administratively transferred to [B65H 2401/11](#) ADD>
- T B65H 2401/114 . . . . Polyester **composition**, e.g. *polyethylene terephthalate [PET]*
- D B65H 2401/1141 . . . . Flexible polyester film made from biaxially oriented polyethylene terephthalate  
<administratively transferred to [B65H 2401/114](#) ADD>
- D B65H 2401/115 . . . . Resin composition  
<administratively transferred to [B65H 2401/11](#) ADD>
- M B65H 2401/12 . . . . **Ceramic composition** *Ceramics*
- M B65H 2401/13 . . . . Coatings, paint, ~~varnish and details thereof~~ or *varnish*
- T B65H 2401/14 . . . . **textile materials** *Textiles, e.g. woven or knitted fabrics*
- D B65H 2401/141 . . . . woven or knit material  
<administratively transferred to [B65H 2401/14](#) ADD>
- T B65H 2401/20 . . . . Physical properties, e.g. *lubricity*
- T B65H 2401/21 . . . . **electrical properties** *Electrical or magnetic properties, e.g. conductivity or resistance*
- D B65H 2401/211 . . . . Conductivity  
<administratively transferred to [B65H 2401/21](#) ADD>
- D B65H 2401/212 . . . . electrical resistance  
<administratively transferred to [B65H 2401/21](#) ADD>
- D B65H 2401/213 . . . . magnetic properties  
<administratively transferred to [B65H 2401/21](#) ADD>
- T B65H 2401/22 . . . . **visual aspect properties** *Optical properties, e.g. opacity or transparency*
- D B65H 2401/221 . . . . opaque material  
<administratively transferred to [B65H 2401/22](#) ADD>
- D B65H 2401/222 . . . . transparent material  
<administratively transferred to [B65H 2401/22](#) ADD>
- T B65H 2401/23 . . . . Strength of materials, e.g. *Young's modulus or tensile strength*
- D B65H 2401/231 . . . . Rigidity  
<administratively transferred to [B65H 2401/23](#) ADD>
- D B65H 2401/2311 . . . . tensile elastic, Young's modulus  
<administratively transferred to [B65H 2401/23](#) ADD>
- D B65H 2401/24 . . . . Other properties  
<administratively transferred to [B65H 2401/20](#) ADD>
- D B65H 2401/241 . . . . Self lubricating  
<administratively transferred to [B65H 2401/20](#) ADD>
- M B65H 2401/242 . . . . **perous** *Porosity*
- D B65H 2401/243 . . . . heat-shrinkable  
<administratively transferred to [B65H 2401/20](#) ADD>
- D B65H 2401/244 . . . . non-permeable  
<administratively transferred to [B65H 2401/20](#) ADD>

<b>M</b>	<b>B65H 2402/00</b>	<b>Features of construction</b> <b>Constructional details of the handling apparatus</b>
T	B65H 2402/10	• Modular <del>construction</del> <b>constructions, e.g. using preformed elements or profiles</b>
D	B65H 2402/11	• • using preforms, e.g. profiles <administratively transferred to <a href="#">B65H 2402/10</a> ADD>
T	B65H 2402/20	• Force <del>system</del> <b>systems, e.g. composition of forces</b>
D	B65H 2402/21	• • Concurrent force system <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/22	• • Parallel force system <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/23	• • Composition of forces <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/231	• • • Parallelogram of forces <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/232	• • • Resolution of a force <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/24	• • Means for balancing forces <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
D	B65H 2402/25	• • Centrifugal force <administratively transferred to <a href="#">B65H 2402/20</a> ADD>
T	B65H 2402/30	• <b>Supports; Subassemblies; Support, subassembly, mounting</b> <b>Mountings</b> thereof
D	B65H 2402/34	• • other support assembly <administratively transferred to <a href="#">B65H 2402/30</a> ADD>
D	B65H 2402/341	• • • Eccentric mounting <administratively transferred to <a href="#">B65H 2402/30</a> ADD>
D	B65H 2402/342	• • • Parallelogram mounting <administratively transferred to <a href="#">B65H 2402/30</a> ADD>
D	B65H 2402/343	• • • Telescopic mounting <administratively transferred to <a href="#">B65H 2402/30</a> ADD>
D	B65H 2402/344	• • • scissor-like assembly <administratively transferred to <a href="#">B65H 2402/30</a> ADD>
U	B65H 2402/35	• • rotating around an axis
M	B65H 2402/351	• • • <del>Turntable</del> <b>Turntables</b>
M	B65H 2402/352	• • • <del>turret</del> <b>Turrets</b>
M	B65H 2402/40	• <b>Features of frame, housing or mounting of the</b> <b>Details of frames, housings or mountings of the whole</b> handling apparatus
M	B65H 2402/44	• • <b>Housing</b> <b>Housings</b>
M	B65H 2402/441	• • • movable for facilitating access to area inside the housing, e.g. pivoting; <del>or</del> sliding
M	B65H 2402/442	• • • with <del>opening</del> <b>openings</b> for introducing material to be handled, e.g. <del>to insert</del> <del>wound roll of product</del> <b>for inserting web rolls</b>
M	B65H 2402/443	• • • with <del>opening</del> <b>openings</b> for delivering material, e.g. <del>to pull out web</del> <del>(dispensing)</del> <b>for dispensing webs</b>
M	B65H 2402/45	• • <del>door(s)</del> <b>Doors</b>
M	B65H 2402/46	• • <del>table</del> <b>Table</b> apparatus

- U B65H 2402/50      · Machine elements
- T B65H 2402/51      · · Joints, *e.g. riveted or magnetic joints*
- D B65H 2402/511     · · · riveted joints  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/512     · · · Key and spline joints  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5121    · · · · Key joint  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5122    · · · · Spline joint  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/513     · · · Welded joints  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/514     · · · threaded joints  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/515     · · · Quick release  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5151    · · · · involving pawl and ratched rack  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5152    · · · · Snap  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5153    · · · · Clip  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5154    · · · · involving magnetic forces  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5155    · · · · Latch mechanism  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5156    · · · · Ball-spring release mechanism  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/516     · · · other joints  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5161    · · · · Ball and socket, knee joint  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5162    · · · · Knuckle joint  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5163    · · · · Bayonet joint  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5164    · · · · plugs, dowels or other devices fastened in walls or the like by inserting  
                          them in holes made therein for that purpose  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/517     · · · Washer  
                          <administratively transferred to [B65H 2402/51](#) ADD>
- D B65H 2402/5171    · · · · of elastic material  
                          <administratively transferred to [B65H 2402/51](#) ADD>

- T B65H 2402/52 . . Bearings, *e.g. magnetic or hydrostatic bearings*
- D B65H 2402/521 . . . Details of mounting  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/5211 . . . . Self-aligning bearings  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/522 . . . Support of bearing  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/5221 . . . . Shaft  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/52211 . . . . . retractable  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/523 . . . Magnetic bearings  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/524 . . . Thrust bearings  
<administratively transferred to [B65H 2402/52](#) ADD>
- D B65H 2402/525 . . . using fluid, e.g. air-cushion, hydrodynamic, hydrostatic bearings Thrust bearings  
<administratively transferred to [B65H 2402/52](#) ADD>
- T B65H 2402/53 . . Guideways
- D B65H 2402/531 . . . involving bearings  
<administratively transferred to [B65H 2402/53](#) ADD>
- T B65H 2402/54 . . Springs, *e.g. helical or leaf springs*
- D B65H 2402/541 . . . Wound tape or wire spring, i.e. spirally coiled tape or wire spring  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/542 . . . Helical spring  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/543 . . . Compression spring  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/544 . . . Leaf spring  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/5441 . . . . Single-point attachment, i.e. one end of the spring is free  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/545 . . . Torsion spring  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/546 . . . Dead-point arrangement, i.e. wherein a mechanism is maintained in standstill by spring forces  
<administratively transferred to [B65H 2402/54](#) ADD>
- D B65H 2402/547 . . . constant force arrangement  
<administratively transferred to [B65H 2402/54](#) ADD>
- T B65H 2402/60 . . ~~Assembling, coupling~~ *Coupling, adapter or locking* means
- D B65H 2402/61 . . Keying means, i.e. for preventing incorrect mounting of an element  
<administratively transferred to [B65H 2402/60](#) ADD>



- D B65H 2402/62 . . Adapter, interface  
<administratively transferred to [B65H 2402/60](#) ADD>
- D B65H 2402/63 . . Couplings  
<administratively transferred to [B65H 2402/60](#) ADD>
- D B65H 2402/631 . . . flexible  
<administratively transferred to [B65H 2402/60](#) ADD>
- D B65H 2402/632 . . . Resilient material coupling  
<administratively transferred to [B65H 2402/60](#) ADD>
- D B65H 2402/633 . . . Universal joint; Hooke's coupling  
<administratively transferred to [B65H 2402/60](#) ADD>
- D B65H 2402/64 . . Locking means  
<administratively transferred to [B65H 2402/60](#) ADD>
- M B65H 2402/80 . ~~Method of manufacturing~~ *characterised by the manufacturing process*
- M B65H 2407/00** **Other means designed for special** *Means not provided for in groups B65H 2220/00 – B65H 2406/00 specially adapted for particular purposes*
- T B65H 2407/10 . Safety means, e.g. for preventing ~~injury to operator~~ *injuries or illegal operations*
- D B65H 2407/11 . . Means preventing illegal operation  
<administratively transferred to [B65H 2407/10](#) ADD>
- T B65H 2407/30 . Means for preventing damage of handled material, *e.g. by controlling atmosphere*
- D B65H 2407/31 . . Controlling atmosphere confining the handled material  
<administratively transferred to [B65H 2407/30](#) ADD>
- D B65H 2407/311 . . . involving humidity control means  
<administratively transferred to [B65H 2407/30](#) ADD>
- D B65H 2407/32 . . . Protective cover  
<administratively transferred to [B65H 2407/30](#) ADD>
- D B65H 2407/33 . . Means for controlling access to the area confining the handled material  
<administratively transferred to [B65H 2407/30](#) ADD>
- T B65H 2407/40 . Means for adding commercial value, *e.g. sound producing or logos*
- D B65H 2407/41 . . Sound producing means  
<administratively transferred to [B65H 2407/40](#) ADD>
- D B65H 2407/42 . . Animation displaying means  
<administratively transferred to [B65H 2407/40](#) ADD>
- D B65H 2407/43 . . Optic means, e.g. transparent body  
<administratively transferred to [B65H 2407/40](#) ADD>
- D B65H 2407/431 . . . Built up optic means, e.g. magnifying glass  
<administratively transferred to [B65H 2407/40](#) ADD>
- D B65H 2407/44 . . Static information displaying means, e.g. logo  
<administratively transferred to [B65H 2407/40](#) ADD>
- M B65H 2511/00** **Dimension** *Dimensions*; **Position**; **Number** *Numbers*; **Identification**; **Occurrence** *Occurrences*
- M B65H 2511/10 . Size; *Dimension* *Dimensions*
- T B65H 2511/14 . . Diameter, *e.g. of roll or package*



- D B65H 2511/142 . . . of roll or package  
<administratively transferred to [B65H 2511/14](#) ADD>
- T B65H 2511/15 . . Height, *e.g. of stack*
- D B65H 2511/152 . . . of stack  
<administratively transferred to [B65H 2511/15](#) ADD>
- T B65H 2511/16 . . Irregularities, *e.g. protuberances*
- D B65H 2511/162 . . . Protuberances or enlargements on the surface  
<administratively transferred to [B65H 2511/16](#) ADD>
- D B65H 2511/164 . . . Cavities, recesses or holes in the surface  
<administratively transferred to [B65H 2511/16](#) ADD>
- T B65H 2511/17 . . Deformation, *e.g. stretching*
- D B65H 2511/172 . . . Elongation; Stretching  
<administratively transferred to [B65H 2511/17](#) ADD>
- T B65H 2511/18 . . relative to handling machine
- D B65H 2511/182 . . . Capacity of area accommodating handled material  
<administratively transferred to [B65H 2511/18](#) ADD>
- U B65H 2511/20 . Location in space
- T B65H 2511/23 . . Coordinates, *e.g. three dimensional coordinates*
- D B65H 2511/232 . . . in two dimensions  
<administratively transferred to [B65H 2511/23](#) ADD>
- D B65H 2511/234 . . . in three dimensions  
<administratively transferred to [B65H 2511/23](#) ADD>
- T B65H 2511/24 . . Irregularities, *e.g. in orientation or skewness*
- D B65H 2511/242 . . . in orientation, e.g. skew  
<administratively transferred to [B65H 2511/24](#) ADD>
- T B65H 2511/30 . **Number** *Numbers, e.g. of windings or rotations*
- D B65H 2511/31 . . Numeric flow, i.e. number per unit of time  
<administratively transferred to [B65H 2511/30](#) ADD>
- D B65H 2511/32 . . of windings  
<administratively transferred to [B65H 2511/30](#) ADD>
- D B65H 2511/33 . . of rotations  
<administratively transferred to [B65H 2511/30](#) ADD>
- D B65H 2511/34 . . Credit  
<administratively transferred to [B65H 2511/30](#) ADD>
- U B65H 2511/50 . Occurrence
- U B65H 2511/51 . . Presence
- T B65H 2511/512 . . . Marks, *e.g. invisible to the human eye*; Patterns
- D B65H 2511/5125 . . . . Marks invisible for the human eye  
<administratively transferred to [B65H 2511/512](#) ADD>
- M B65H 2511/515 . . Absence (~~error, fault B65H 2511/52~~)
- T B65H 2511/52 . . **Error** *Defective operating conditions*; **Fault** (dimensional irregularities [B65H 2511/16](#); irregularities in location [B65H 2511/24](#); speed irregularities [B65H 2513/106](#))

D	B65H 2511/526	<ul style="list-style-type: none"> <li>• • • Breakdown</li> <li>&lt;administratively transferred to <a href="#">B65H 2511/52</a> ADD&gt;</li> </ul>
<b>M</b>	<b>B65H 2513/00</b>	<b>Dynamic entities; Timing <i>aspect</i> <i>aspects</i></b>
T	B65H 2513/10	<ul style="list-style-type: none"> <li>• Speed</li> </ul>
D	B65H 2513/102	<ul style="list-style-type: none"> <li>• • Reference</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/10</a> ADD&gt;</li> </ul>
D	B65H 2513/104	<ul style="list-style-type: none"> <li>• • Relative speed</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/10</a> ADD&gt;</li> </ul>
D	B65H 2513/106	<ul style="list-style-type: none"> <li>• • Variation; Irregularities</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/10</a> ADD&gt;</li> </ul>
D	B65H 2513/108	<ul style="list-style-type: none"> <li>• • Passage from one speed to another speed</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/10</a> ADD&gt;</li> </ul>
T	B65H 2513/11	<ul style="list-style-type: none"> <li>• • angular</li> </ul>
D	B65H 2513/112	<ul style="list-style-type: none"> <li>• • • of the yarn balloon</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/11</a> ADD&gt;</li> </ul>
D	B65H 2513/114	<ul style="list-style-type: none"> <li>• • • Converting or comparing angular speed to linear speed, e.g. when detecting remaining length of web roll</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/11</a> ADD&gt;</li> </ul>
T	B65H 2513/20	<ul style="list-style-type: none"> <li>• Acceleration or deceleration</li> </ul>
D	B65H 2513/21	<ul style="list-style-type: none"> <li>• • Acceleration</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/20</a> ADD&gt;</li> </ul>
D	B65H 2513/212	<ul style="list-style-type: none"> <li>• • • angular</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/23</a> ADD&gt;</li> </ul>
D	B65H 2513/22	<ul style="list-style-type: none"> <li>• • Deceleration</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/20</a> ADD&gt;</li> </ul>
D	B65H 2513/222	<ul style="list-style-type: none"> <li>• • • angular</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/23</a> ADD&gt;</li> </ul>
N	B65H 2513/23	<ul style="list-style-type: none"> <li>• • <i>angular</i></li> </ul>
U	B65H 2513/50	<ul style="list-style-type: none"> <li>• Timing</li> </ul>
T	B65H 2513/51	<ul style="list-style-type: none"> <li>• • Sequence of process</li> </ul>
D	B65H 2513/511	<ul style="list-style-type: none"> <li>• • • relating to a particular timing for sensing a variable</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/51</a> ADD&gt;</li> </ul>
T	B65H 2513/512	<ul style="list-style-type: none"> <li>• • <i>Starting</i>; Stopping</li> </ul>
D	B65H 2513/514	<ul style="list-style-type: none"> <li>• • Starting</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/512</a> ADD&gt;</li> </ul>
T	B65H 2513/52	<ul style="list-style-type: none"> <li>• • Age; <i>Duration</i>; Life time <i>or chronology of event</i></li> </ul>
D	B65H 2513/53	<ul style="list-style-type: none"> <li>• • duration of event</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/52</a> ADD&gt;</li> </ul>
D	B65H 2513/54	<ul style="list-style-type: none"> <li>• • Chronology of event</li> <li>&lt;administratively transferred to <a href="#">B65H 2513/52</a> ADD&gt;</li> </ul>
<b>T</b>	<b>B65H 2515/00</b>	<b>Physical entities not provided for in groups <a href="#">B65H 2511/00</a> or <a href="#">B65H 2513/00</a></b>
T	B65H 2515/10	<ul style="list-style-type: none"> <li>• Mass, <i>e.g. mass flow rate</i>; Weight; <i>Inertia</i></li> </ul>

D	B65H 2515/11	<ul style="list-style-type: none"> <li>• • Mass-flow rate</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/10</a> ADD&gt;</li> </ul>
D	B65H 2515/112	<ul style="list-style-type: none"> <li>• • Specific-weight</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/10</a> ADD&gt;</li> </ul>
D	B65H 2515/114	<ul style="list-style-type: none"> <li>• • Denier</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/10</a> ADD&gt;</li> </ul>
D	B65H 2515/116	<ul style="list-style-type: none"> <li>• • Inertia</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/10</a> ADD&gt;</li> </ul>
T	B65H 2515/20	<ul style="list-style-type: none"> <li>• Volume; <i>Volume flow</i></li> </ul>
D	B65H 2515/21	<ul style="list-style-type: none"> <li>• • Volume-flow rate</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/20</a> ADD&gt;</li> </ul>
D	B65H 2515/212	<ul style="list-style-type: none"> <li>• • • of-air</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/20</a> ADD&gt;</li> </ul>
M	B65H 2515/30	<ul style="list-style-type: none"> <li>• <i>Force Forces; Stress Stresses</i></li> </ul>
T	B65H 2515/31	<ul style="list-style-type: none"> <li>• • Tensile <i>force forces</i></li> </ul>
D	B65H 2515/312	<ul style="list-style-type: none"> <li>• • • in-direction-perpendicular-to-transport-direction</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/31</a> ADD&gt;</li> </ul>
T	B65H 2515/32	<ul style="list-style-type: none"> <li>• • Torque <i>e.g. braking torque; Moment</i></li> </ul>
D	B65H 2515/322	<ul style="list-style-type: none"> <li>• • • Braking torque</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/32</a> ADD&gt;</li> </ul>
T	B65H 2515/34	<ul style="list-style-type: none"> <li>• • Pressure, <i>e.g. fluid pressure</i></li> </ul>
D	B65H 2515/342	<ul style="list-style-type: none"> <li>• • • Fluid-pressure</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/34</a> ADD&gt;</li> </ul>
T	B65H 2515/40	<ul style="list-style-type: none"> <li>• Temperature; <i>Thermal conductivity</i></li> </ul>
D	B65H 2515/41	<ul style="list-style-type: none"> <li>• • Heat-conductivity</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/40</a> ADD&gt;</li> </ul>
T	B65H 2515/70	<ul style="list-style-type: none"> <li>• Electrical <i>characteristics or magnetic properties, e.g. electric power or current</i></li> </ul>
D	B65H 2515/702	<ul style="list-style-type: none"> <li>• • Voltage</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/704	<ul style="list-style-type: none"> <li>• • Current</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/706	<ul style="list-style-type: none"> <li>• • Power</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/708	<ul style="list-style-type: none"> <li>• • Resistance</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/71	<ul style="list-style-type: none"> <li>• • Magnetic-properties</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/712	<ul style="list-style-type: none"> <li>• • Capacitance</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/714	<ul style="list-style-type: none"> <li>• • Inductance</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>
D	B65H 2515/716	<ul style="list-style-type: none"> <li>• • Static-electricity</li> <li>&lt;administratively transferred to <a href="#">B65H 2515/70</a> ADD&gt;</li> </ul>

D	B65H 2515/80	<ul style="list-style-type: none"> <li>• Miscellaneous</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2515/00</a> ADD&gt;</p>
M	B65H 2515/805	<ul style="list-style-type: none"> <li>• <del>▫</del> Humidity</li> </ul>
M	B65H 2515/81	<ul style="list-style-type: none"> <li>• <del>▫</del> Rigidity; Stiffness; Elasticity</li> </ul>
M	B65H 2515/815	<ul style="list-style-type: none"> <li>• <del>▫</del> Slip</li> </ul>
M	B65H 2515/82	<ul style="list-style-type: none"> <li>• <del>▫</del> Sound; Noise</li> </ul>
M	B65H 2515/83	<ul style="list-style-type: none"> <li>• <del>▫</del> Environmental conditions, i.e. in the area confining the handled material or the handling machine</li> </ul>
T	B65H 2515/84	<ul style="list-style-type: none"> <li>• <del>▫</del> Quality; <i>Condition, e.g. degree of wear</i></li> </ul>
D	B65H 2515/842	<ul style="list-style-type: none"> <li>• • Condition, e.g. degree of wear, presence of wrinkles</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2515/84</a> ADD&gt;</p>
<b>U</b>	<b>B65H 2551/00</b>	<b>Means for control to be used by operator; User interfaces</b>
U	B65H 2551/10	<ul style="list-style-type: none"> <li>• Command input means</li> </ul>
T	B65H 2551/11	<ul style="list-style-type: none"> <li>• • <del>Slidable</del><i>Sliding or rotating</i> members</li> </ul>
D	B65H 2551/12	<ul style="list-style-type: none"> <li>• • Rotating members</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2551/11</a> ADD&gt;</p>
T	B65H 2551/13	<ul style="list-style-type: none"> <li>• • Remote control devices, <i>e.g. speech recognition</i></li> </ul>
D	B65H 2551/132	<ul style="list-style-type: none"> <li>• • • Speech recognition</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2551/13</a> ADD&gt;</p>
U	B65H 2551/20	<ul style="list-style-type: none"> <li>• Display means; Information output means</li> </ul>
T	B65H 2551/21	<ul style="list-style-type: none"> <li>• • Monitors; <del>Video displays</del><i>Displays</i></li> </ul>
D	B65H 2551/212	<ul style="list-style-type: none"> <li>• • • Liquid crystal display [LCD]</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2551/21</a> ADD&gt;</p>
T	B65H 2551/24	<ul style="list-style-type: none"> <li>• • <del>Voice</del><i>Sound or voice</i> generating means</li> </ul>
T	B65H 2551/26	<ul style="list-style-type: none"> <li>• • <del>for input</del><i>For input or output</i> variables</li> </ul>
D	B65H 2551/27	<ul style="list-style-type: none"> <li>• • for output variables</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2551/26</a> ADD&gt;</p>
D	B65H 2551/28	<ul style="list-style-type: none"> <li>• • Sound-generating means</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2551/24</a> ADD&gt;</p>
<b>M</b>	<b>B65H 2553/00</b>	<b><del>Means for sensing, detecting or otherwise used for control</del><i>Sensing or detecting means</i></b>
T	B65H 2553/10	<ul style="list-style-type: none"> <li>• using <del>fluid</del><i>fluids, e.g. pneumatics</i></li> </ul>
D	B65H 2553/11	<ul style="list-style-type: none"> <li>• • pneumatic</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2553/10</a> ADD&gt;</p>
D	B65H 2553/12	<ul style="list-style-type: none"> <li>• • hydraulic</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2553/10</a> ADD&gt;</p>
U	B65H 2553/20	<ul style="list-style-type: none"> <li>• using electric elements</li> </ul>
T	B65H 2553/21	<ul style="list-style-type: none"> <li>• • Variable resistances, <del>rheostats or potentiometers</del><i>e.g. rheostats, potentiometers or strain gauges</i></li> </ul>
D	B65H 2553/212	<ul style="list-style-type: none"> <li>• • • Strain gauges</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2553/21</a> ADD&gt;</p>
T	B65H 2553/23	<ul style="list-style-type: none"> <li>• • Capacitive detectors, <i>e.g. electrode arrangements</i></li> </ul>
D	B65H 2553/232	<ul style="list-style-type: none"> <li>• • • Electrodes arrangement</li> </ul> <p>&lt;administratively transferred to <a href="#">B65H 2553/23</a> ADD&gt;</p>

- U B65H 2553/40 · using optical, e.g. photographic, elements
- T B65H 2553/44 · · ~~involving light guide~~ *Involving light guide, e.g. optical fibres*
- D B65H 2553/442 · · · optical fibres  
<administratively transferred to [B65H 2553/44](#) ADD>
- T B65H 2553/51 · ~~Encoder~~ *Encoders*, e.g. ~~rotary~~ *linear*
- D B65H 2553/512 · · linear  
<administratively transferred to [B65H 2553/51](#) ADD>
- U B65H 2553/60 · Details of intermediate means between the sensing means and the element to be sensed
- T B65H 2553/61 · · Mechanical means, *e.g. contact arms*
- D B65H 2553/612 · · · Contact arms; Levers; Antennas  
<administratively transferred to [B65H 2553/61](#) ADD>
- D B65H 2553/614 · · · Impact generating means  
<administratively transferred to [B65H 2553/61](#) ADD>
- U B65H 2553/80 · Arrangement of the sensing means
- T B65H 2553/82 · · with regard to the direction of transport of the handled material
- D B65H 2553/822 · · · Multiple sensors in a direction perpendicular to the direction of transport of the handled material  
<administratively transferred to [B65H 2553/82](#) ADD>
- U B65H 2555/00 Actuating means**
- U B65H 2555/10 · linear
- T B65H 2555/11 · · pneumatic, *e.g. inflatable elements*
- D B65H 2555/112 · · · Inflatable element  
<administratively transferred to [B65H 2555/11](#) ADD>
- T B65H 2555/13 · · magnetic, e.g. ~~linear solenoids~~ *induction motors*
- D B65H 2555/132 · · · Linear induction motors  
<administratively transferred to [B65H 2555/13](#) ADD>
- D B65H 2555/134 · · · Linear stepper motor  
<administratively transferred to [B65H 2555/13](#) ADD>
- U B65H 2555/20 · angular
- T B65H 2555/25 · · D.C. motors, *e.g. shunt motors*
- D B65H 2555/252 · · · in-derivation; Shunt motors  
<administratively transferred to [B65H 2555/25](#) ADD>
- T B65H 2555/30 · Multi-axis
- D B65H 2555/31 · · Robots  
<administratively transferred to [B65H 2555/30](#) ADD>
- D B65H 2555/32 · · Automatic guided vehicle system  
<administratively transferred to [B65H 2555/30](#) ADD>
- T B65H 2555/41 · ~~Electrostatic forces~~ *using electrostatic forces or magnets*
- D B65H 2555/42 · · Magnets  
<administratively transferred to [B65H 2555/41](#) ADD>

**Project: N/A (B66D)****B66D**

**CAPSTANS; WINCHES; TACKLES, e.g. PULLEY BLOCKS; HOISTS (winding or unwinding ropes or cables for feeding or storage purposes [B65H](#); rope or cable winding or unwinding mechanisms for lifts [B66B](#))**

NOTE

This subclass covers:

- rope, cable or chain winding or unwinding mechanisms for moving all loads except lift cages, e.g. winches for dredges;
- braking or detent devices characterised by their application for retarding or preventing rotary movement of a winding drum or barrel

WARNINGS

1.

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

[B66D 1/395](#) covered by [B66D 1/36](#), [B66D 1/50](#)

2. 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.

**Project: RP10455 (B68G)****U B68G 15/00****Auxiliary devices and tools specially for upholstery**

U B68G 15/005

• {Worktables or workframes}

**N B68G 99/00*****Subject matter not provided for in other groups of this subclass*****Project: RP10472 (C01B)****U C01B 25/00****Phosphorus; Compounds thereof (~~{[C01B 6/00](#)}~~, [C01B 21/00](#), [C01B 23/00](#) take precedence; perphosphates [C01B 15/16](#))**

U C01B 25/16

• Oxyacids of phosphorus; Salts thereof (peroxyacids or salts thereof [C01B 15/00](#))

U C01B 25/26

• • Phosphates (perphosphates [C01B 15/16](#))

U C01B 25/45

• • • containing plural metal, or metal and ammonium

D C01B 25/453

• • • • {having molecular-sieve properties}

WARNING

Group C01B 25/453 is no longer used for the classification of new documents from May, 1995. The backlog of this groups is continuously being reclassified to the appropriate subgroups of C01B 37/00 and C01B 39/00.

<administratively transferred to [C01B 37/00](#) and [C01B 39/00](#)>

**T C01B 39/00**

**Compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites; Their preparation; After-treatment, e.g. ion-exchange or dealumination (treatment to modify the sorption properties, e.g. shaping using a binder, [B01J 20/10](#); treatment to modify the catalytic properties, e.g. combination of treatments to make the zeolites appropriate to their use as a catalyst, [B01J 29/04](#); treatment to improve the ion-exchange properties [B01J 39/14](#); ~~regeneration or reactivation of ion-exchange properties [B01J 49/00](#); preparation of stabilised suspensions used in detergents [C11D 3/12](#))~~**

NOTES

1. In this group, the following term is used with the meaning indicated:

- "zeolites" means:

- i. crystalline aluminosilicates with base-exchange and molecular sieve properties, having three dimensional, microporous lattice framework structure of tetrahedral oxide units;
  - ii. compounds isomorphous to those of the former category, wherein the aluminium or silicon atoms in the framework are partly or wholly replaced by atoms of other elements, e.g. by gallium, germanium, phosphorus or boron.
2. Compounds classified in main group [C01B 39/00](#) are also classified in other groups of class [C01](#) according to their composition

## Project: MP10335 (C04B)

### M C04B 37/00

**Joining burned ceramic articles with other burned ceramic articles or other articles by heating** ~~{(laminated products B32B, E04C; {soldering and welding materials B23K 35/24}; laminated products B32B, E04C)}~~

#### NOTE

{In groups [C04B 37/00](#) - [C04B 37/04](#) features relating to interlayers, additional compositional information or further processing are indexed with codes chosen from [C04B 2237/00](#) - [C04B 2237/88](#).}

#### WARNING

~~Groups C04B 37/005, C04B 37/006, C04B 37/025 and C04B 37/026 are no longer used for classification as from September 1, 2008. Aspects relating to interlayers are from that date indexed by codes chosen from C04B 2237/02 - C04B 2237/16~~

## Project: MP10322 (C07D)

### M C07D

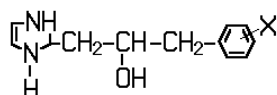
**HETEROCYCLIC COMPOUNDS** (*macromolecular compounds C08*)

#### NOTES

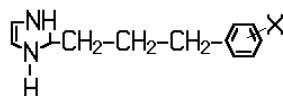
1. This subclass does not cover compounds containing saccharide radicals as defined in Note (3) following the title of subclass [C07H](#), which are covered by subclass [C07H](#).
2. In this subclass, in compounds containing a hetero ring covered by group [C07D 295/00](#) and at least one other hetero ring, the hetero ring covered by group [C07D 295/00](#) is considered as an acyclic chain containing nitrogen atoms.
3. In this subclass, the following terms or expressions are used with the meaning indicated:
  - "hetero ring" is a ring having at least one halogen, nitrogen, oxygen, sulfur, selenium or tellurium atom as a ring member;
  - "bridged" means the presence of at least one fusion other than ortho, peri or spiro;
  - two rings are "condensed" if they share at least one ring member, i.e. "spiro" and "bridged" are considered as condensed;
  - "condensed ring system" is a ring system in which all rings are condensed among themselves;
  - "number of relevant rings" in a condensed ring system equals the number of scissions necessary to convert the ring system into one acyclic chain;
  - "relevant rings" in a condensed ring system, i.e. the rings which taken together describe all the links between every atom of the ring system, are chosen according to the following criteria consecutively:
    - a. lowest number of ring members;
    - b. highest number of hetero atoms as ring members;
    - c. lowest number of members shared with other rings;



- d. last place in the classification scheme.
4. Attention is drawn to Note (3) after class [C07](#), which defines the last place priority rule applied in the range of subclasses [C07C](#) - [C07K](#) and within these subclasses.
5. Therapeutic activity of compounds is further classified in subclass [A61P](#).
6. In this subclass, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary:
- compounds having only one hetero ring are classified in the last appropriate place in one of the groups [C07D 203/00](#) - [C07D 347/00](#). The same applies for compounds having more hetero rings covered by the same main group, neither condensed among themselves nor condensed with a common carbocyclic ring system;
  - compounds having two or more hetero rings covered by different main groups neither condensed among themselves nor condensed with a common carbocyclic ring system are classified in the last appropriate place in one of the groups [C07D 401/00](#) - [C07D 421/00](#);
  - compounds having two or more relevant hetero rings, covered by the same or by different main groups, which are condensed among themselves or condensed with a common carbocyclic ring system, are classified in the last appropriate place in one of the groups [C07D 451/00](#) - [C07D 519/00](#).
7. In this subclass:
- where a compound may exist in tautomeric forms, it is classified as though existing in the form which is classified last in the system. Therefore, double bonds between ring members and non-ring members and double bonds between ring members themselves are considered equivalent in determining the degree of hydrogenation of the ring. Formulae are considered to be written in Kekule form;
  - hydrocarbon radicals containing a carbocyclic ring and an acyclic chain by which it is linked to the hetero ring and being substituted on both the carbocyclic ring and the acyclic chain by hetero atoms or by carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, are classified according to the substituents on the acyclic chain. For example, the compound



is classified in group [C07D 233/22](#),  
and the compound



is classified in groups [C07D 233/24](#) and [C07D 233/26](#), where X —NH<sub>2</sub>, —NHCOCH<sub>3</sub>, or —COOCH<sub>3</sub>.

**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:

U	C07D 201/00	<b>Preparation, separation, purification or stabilisation of unsubstituted lactams</b>
U	C07D 201/02	• Preparation of lactams
M	C07D 201/08	• • from carboxylic acids or derivatives thereof, e.g. <b>hydroxycarboxylic</b> <b>hydroxy</b> <b>carboxylic</b> acids, lactones; <b>or</b> nitriles
M	C07D 201/16	• Separation or purification ( <del>separation of inorganic salts C01</del> )

- U C07D 207/00 Heterocyclic compounds containing five-membered rings not condensed with other rings, with one nitrogen atom as the only ring hetero atom**
- NOTE  
Pyrrolidines having only hydrogen atoms attached to the ring carbon atoms are classified in [C07D 295/00](#)
- U C07D 207/02 · with only hydrogen or carbon atoms directly attached to the ring nitrogen atom
- U C07D 207/04 · · having no double bonds between ring members or between ring members and non-ring members
- M C07D 207/10 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms; with at the most one *bond* to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 207/18 · · having one double bond between ring members or between a ring member and a non-ring member
- M C07D 207/22 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 207/30 · · having two double bonds between ring members or between ring members and non-ring members
- M C07D 207/34 · · · with *heteroatoms**hetero atoms* or with carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- M C07D 211/00 Heterocyclic compounds containing hydrogenated pyridine rings, not condensed with other rings**
- NOTE  
1. For the purpose of this group, the term "hydrogenated" means having less than three double bonds between ring members or between ring members and non-ring members;
1. In this group, the following term is used with the meaning indicated:
- "hydrogenated" means having less than three double bonds between ring members or between ring members and non-ring members.
2. Piperidines having only hydrogen atoms attached to the ring carbon atoms are classified in [C07D 295/00](#)
- U C07D 211/04 · with only hydrogen or carbon atoms directly attached to the ring nitrogen atom
- U C07D 211/06 · · having no double bonds between ring members or between ring members and non-ring members
- U C07D 211/08 · · · with hydrocarbon or substituted hydrocarbon radicals directly attached to ring carbon atoms
- U C07D 211/18 · · · with substituted hydrocarbon radicals attached to ring carbon atoms
- M C07D 211/20 · · · · with hydrocarbon radicals, substituted by singly bound oxygen or sulfur*sulphur* atoms (~~bound to the same carbon atom C07D 211/30~~)
- U C07D 213/00 Heterocyclic compounds containing six-membered rings, not condensed with other rings, with one nitrogen atom as the only ring hetero atom and three or more double bonds between ring members or between ring members and non-ring members**
- U C07D 213/02 · having three double bonds between ring members or between ring members and non-ring members
- U C07D 213/04 · · having no bond between the ring nitrogen atom and a non-ring member or having only hydrogen or carbon atoms directly attached to the ring nitrogen atom

- U C07D 213/24      · · · with substituted hydrocarbon radicals attached to ring carbon atoms
- M C07D 213/28      · · · · Radicals substituted by singly-bound oxygen or **sulfur****sulphur** atoms  
(~~bound to the same carbon atom C07D-213/44~~)
- U C07D 213/32      · · · · · Sulfur atoms
- M C07D 213/34      · · · · · to which a second **heteroatom****hetero atom** is attached
- U C07D 213/36      · · · · Radicals substituted by singly-bound nitrogen atoms (nitro radicals  
[C07D 213/26](#))
- M C07D 213/38      · · · · · having only hydrogen; **or** hydrocarbon radicals attached to the  
substituent nitrogen atom
- M C07D 213/54      · · · · Radicals substituted by carbon atoms having three bonds to  
**heteroatoms**; **hetero atoms** with at the most one **bond** to halogen, e.g.  
ester or nitrile radicals
- M C07D 213/60      · · · with **heteroatoms****hetero atoms** or with carbon atoms having three bonds  
to hetero atoms; with at the most one **bond** to halogen, e.g. ester or nitrile  
radicals, directly attached to ring carbon atoms
- U C07D 213/62      · · · · Oxygen or sulfur atoms
- U C07D 213/63      · · · · · One oxygen atom
- U C07D 213/65      · · · · · attached in position 3 or 5
- M C07D 213/66      · · · · · having in position 3 an oxygen atom and in each of the positions 4  
and 5 a carbon atom bound to an oxygen, **sulfur****sulphur**, or nitrogen  
atom, e.g. pyridoxal
- M C07D 213/78      · · · · Carbon atoms having three bonds to hetero atoms, with at the most one  
**bond** to halogen, e.g. ester or nitrile radicals
- U C07D 215/00      Heterocyclic compounds containing quinoline or hydrogenated quinoline  
ring systems**
- U C07D 215/02      · having no bond between the ring nitrogen atom and a non-ring member or  
having only hydrogen atoms or carbon atoms directly attached to the ring  
nitrogen atom
- U C07D 215/16      · · with hetero atoms or with carbon atoms having three bonds to hetero atoms  
with at the most one bond to halogen, e.g. ester or nitrile radicals, directly  
attached to ring carbon atoms
- M C07D 215/20      · · · Oxygen atoms (~~quinophthalones C09B-25/00~~)
- U C07D 219/00      Heterocyclic compounds containing acridine or hydrogenated acridine ring  
systems**
- U C07D 219/04      · with hetero atoms or with carbon atoms having three bonds to hetero atoms  
with at the most one bond to halogen, e.g. ester or nitrile radicals, directly  
attached to carbon atoms of the ring system
- M C07D 219/08      · · Nitrogen atoms (~~acridine dyes C09B-15/00~~)
- U C07D 219/10      · · · attached in position 9
- M C07D 219/12      · · · · Amino-**alkyl-amino****alkylamino** radicals attached in position 9
- U C07D 221/00      Heterocyclic compounds containing six-membered rings having one  
nitrogen atom as the only ring hetero atom, not provided for by groups  
[C07D 211/00](#) - [C07D 219/00](#)**
- U C07D 221/02      · condensed with carbocyclic rings or ring systems
- U C07D 221/04      · · Ortho- or peri-condensed ring systems
- U C07D 221/06      · · · Ring systems of three rings
- M C07D 221/08      · · · · Aza-anthracenes (~~acridine C07D-219/00~~)

- M C07D 223/00**      **Heterocyclic compounds containing seven-membered rings having one nitrogen atom as the only ring hetero atom**
- NOTE  
Hexamethylene imines or 3-**aza-bicycloazabicyclo** [3.2.2] nonanes, having only hydrogen atoms attached to the ring carbon atoms, are classified in **group C07D 295/00**.
- M C07D 225/00**      **Heterocyclic compounds containing rings of more than seven members having one nitrogen atom as the only ring hetero atom**
- NOTE  
Polymethyleneimines with at least five ring members and having only hydrogen atoms attached to the ring carbon atoms are classified in group **C07D 295/00**.
- M C07D 227/00**      **Heterocyclic compounds containing rings having one nitrogen atom as the only ring hetero atom, according to more than one of groups C07D 203/00 - C07D 225/00**
- NOTE  
Polymethyleneimines with at least five ring members and having only hydrogen atoms attached to the ring carbon atoms are classified in group **C07D 295/00**.
- U C07D 231/00**      **Heterocyclic compounds containing 1,2-diazole or hydrogenated 1,2-diazole rings**
- U C07D 231/02      · not condensed with other rings
- M C07D 231/06      · · having one double bond between ring members or between **ring members and a ring member and a non-ring members member**
- U C07D 231/10      · · having two or three double bonds between ring members or between ring members and non-ring members
- U C07D 231/14      · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 231/18      · · · · One oxygen or sulfur atom
- M C07D 231/20      · · · · · One oxygen atom attached in **positions position** 3 or 5
- U C07D 231/28      · · · · Two oxygen or sulfur atoms
- M C07D 231/30      · · · · · attached in **position positions** 3 and 5
- M C07D 231/54      · condensed with carbocyclic rings or ring- systems
- U C07D 233/00**      **Heterocyclic compounds containing 1,3-diazole or hydrogenated 1,3-diazole rings, not condensed with other rings**
- U C07D 233/04      · having one double bond between ring members or between a ring member and a non-ring member
- U C07D 233/06      · · with only hydrogen atoms or radicals containing only hydrogen and carbon atoms, directly attached to ring carbon atoms
- U C07D 233/08      · · · with alkyl radicals, containing more than four carbon atoms, directly attached to ring carbon atoms
- U C07D 233/12      · · · · with substituted hydrocarbon radicals attached to ring nitrogen atoms
- M C07D 233/18      · · · · · Radicals substituted by carbon atoms having three bonds to hetero atoms with at the most one **bond** to halogen, e.g. ester or nitrile radicals
- U C07D 233/54      · having two double bonds between ring members or between ring members and non-ring members

- U C07D 233/56
  - • with only hydrogen atoms or radicals containing only hydrogen and carbon atoms, attached to ring carbon atoms
- M C07D 233/62
  - • • with triarylmethyl radicals attached to ring nitrogen atoms (~~triarylmethane dyes C09B-11/26~~)
- M C07D 233/66
  - • with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one *bond* to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- M C07D 233/88
  - • • Nitrogen atoms, e.g. allantoin (~~nitro radicals C07D 233/91~~)
- U C07D 239/00**

**Heterocyclic compounds containing 1,3-diazine or hydrogenated 1,3-diazine rings**
- U C07D 239/02
  - not condensed with other rings
- U C07D 239/06
  - • having one double bond between ring members or between a ring member and a non-ring member
- M C07D 239/08
  - • • with ~~heteroatoms~~ *hetero atoms* directly attached in position 2
- U C07D 239/12
  - • • • Nitrogen atoms not forming part of a nitro radical
- M C07D 239/14
  - • • • • with only hydrogen atoms, hydrocarbon or substituted hydrocarbon radicals, attached to said nitrogen atoms
- U C07D 239/24
  - • having three or more double bonds between ring members or between ring members and non-ring members
- U C07D 239/28
  - • • with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, directly attached to ring carbon atoms
- U C07D 239/32
  - • • • One oxygen, sulfur or nitrogen atom
- U C07D 239/34
  - • • • • One oxygen atom
- M C07D 239/36
  - • • • • as doubly bound *oxygen* atom or as unsubstituted hydroxy radical
- M C07D 239/42
  - • • • • One nitrogen atom (nitro radicals [C07D 239/30](#); ~~benzenesulfonamido-pyrimidines C07D 239/69~~)
- M C07D 239/46
  - • • • • Two or more oxygen, *sulfur sulphur* or nitrogen atoms (~~benzenesulfonamido-pyrimidines C07D 239/69~~)
- U C07D 239/60
  - • • • • Three or more oxygen or sulfur atoms
- U C07D 239/66
  - • • • • Thiobarbituric acids
- M C07D 239/68
  - • • • • • Salts ~~of~~ organic bases; Organic double compounds
- U C07D 239/70
  - condensed with carbocyclic rings or ring systems
- U C07D 239/72
  - • Quinazolines; Hydrogenated quinazolines
- U C07D 239/86
  - • • with hetero atoms directly attached in position 4
- U C07D 239/88
  - • • • Oxygen atoms
- M C07D 239/90
  - • • • • with acyclic radicals attached in ~~positions~~ *position* 2 or 3
- M C07D 239/91
  - • • • • with aryl or aralkyl radicals attached in ~~positions~~ *position* 2 or 3
- M C07D 241/00**

**Heterocyclic compounds containing 1,4-diazine or hydrogenated 1,4-diazine rings**

NOTE

Piperazines with only hydrogen atoms directly attached to ring carbon atoms are classified in group [C07D 295/00](#).
- U C07D 241/02
  - not condensed with other rings
- U C07D 241/10
  - • having three double bonds between ring members or between ring members and non-ring members

- U C07D 241/14 . . . with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 241/24 . . . . Carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals
- U C07D 241/26 . . . . . with nitrogen atoms directly attached to ring carbon atoms
- U C07D 241/28 . . . . . in which said hetero-bound carbon atoms have double bonds to oxygen, sulfur or nitrogen atoms
- M C07D 241/30 . . . . . in which said hetero—bound carbon atoms are part of a substructure —C(=X)—X—C(=X)—X— in which X is an oxygen or sulfur/sulphur atom or an imino radical, e.g. imidoylguanidines
- U C07D 243/00 Heterocyclic compounds containing seven-membered rings having two nitrogen atoms as the only ring hetero atoms**
- M C07D 243/02 . having the nitrogen atoms in positions 1,2 1 and 2
- M C07D 243/04 . having the nitrogen atoms in positions 1,3 1 and 3
- M C07D 243/06 . having the nitrogen atoms in positions 1,4 1 and 4
- U C07D 249/00 Heterocyclic compounds containing five-membered rings having three nitrogen atoms as the only ring hetero atoms**
- U C07D 249/16 . condensed with carbocyclic rings or ring systems
- U C07D 249/22 . . Naphthotriazoles
- M C07D 249/24 . . . with stilbene radicals directly attached in position 2
- U C07D 253/00 Heterocyclic compounds containing six-membered rings having three nitrogen atoms as the only ring hetero atoms, not provided for by group C07D 251/00**
- U C07D 253/08 . condensed with carbocyclic rings or ring systems
- M C07D 253/10 . . Condensed 1,2,4 1,2,4-triazines; Hydrogenated condensed 1,2,4-triazines
- U C07D 261/00 Heterocyclic compounds containing 1,2-oxazole or hydrogenated 1,2-oxazole rings**
- U C07D 261/02 . not condensed with other rings
- U C07D 261/06 . . having two or more double bonds between ring members or between ring members and non-ring members
- U C07D 261/10 . . . with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 261/14 . . . . Nitrogen atoms
- M C07D 261/16 . . . . Benzene-sulphonamido/sulfonamido isoxazoles
- U C07D 263/00 Heterocyclic compounds containing 1,3-oxazole or hydrogenated 1,3-oxazole rings**
- U C07D 263/02 . not condensed with other rings
- U C07D 263/30 . . having two or three double bonds between ring members or between ring members and non-ring members
- U C07D 263/34 . . . with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 263/48 . . . . Nitrogen atoms not forming part of a nitro radical
- M C07D 263/50 . . . . Benzene-sulphonamido/sulfonamido oxazoles



- M C07D 265/00** **Heterocyclic compounds containing six-membered rings having one nitrogen atom and one oxygen atom as the only ring hetero atoms**
- NOTE  
Morpholines having only hydrogen atoms attached to the ring carbon atoms are classified in [group C07D 295/00](#).
- U C07D 277/00** **Heterocyclic compounds containing 1,3-thiazole or hydrogenated 1,3-thiazole rings**
- U C07D 277/02 · not condensed with other rings
  - U C07D 277/08 · · having one double bond between ring members or between a ring member and a non-ring member
  - M C07D 277/12 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
  - U C07D 277/20 · · having two or three double bonds between ring members or between ring members and non-ring members
  - U C07D 277/32 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
  - U C07D 277/38 · · · · Nitrogen atoms
  - M C07D 277/50 · · · · Nitrogen atoms bound to hetero atoms (~~nitro radicals C07D 277/58~~)
  - M C07D 277/60 · condensed with carbocyclic rings or ring- systems
  - U C07D 277/62 · · Benzothiazoles
  - U C07D 277/68 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached in position 2
  - U C07D 277/70 · · · · Sulfur atoms
  - U C07D 277/76 · · · · · Sulfur atoms attached to a second hetero atom
  - M C07D 277/78 · · · · · to a ~~sulfur~~[second sulphur](#) atom
- M C07D 279/00** **Heterocyclic compounds containing six-membered rings having one nitrogen atom and one sulfur atom as the only ring hetero atoms**
- NOTE  
Thiomorpholines having only hydrogen atoms attached to the ring carbon atoms are classified in [group C07D 295/00](#).
- U C07D 285/00** **Heterocyclic compounds containing rings having nitrogen and sulfur atoms as the only ring hetero atoms, not provided for by groups [C07D 275/00](#) - [C07D 283/00](#)**
- U C07D 285/15 · Six-membered rings
  - U C07D 285/16 · · Thiadiazines; Hydrogenated thiadiazines
  - U C07D 285/18 · · · 1,2,4-Thiadiazines; Hydrogenated 1,2,4-thiadiazines
  - U C07D 285/20 · · · · condensed with carbocyclic rings or ring systems
  - U C07D 285/22 · · · · · condensed with one six-membered ring
  - U C07D 285/24 · · · · · with oxygen atoms directly attached to the ring sulfur atom
  - U C07D 285/26 · · · · · · substituted in position 6 or 7 by sulfamoyl or substituted sulfamoyl radicals
  - M C07D 285/30 · · · · · · with hydrocarbon radicals, substituted by hetero atoms, attached in position 3



- M C07D 295/00** Heterocyclic compounds containing polymethylene-imine rings with at least five ring members, 3-azabicyclo [3.2.2] nonane, piperazine, morpholine or thiomorpholine rings, having only hydrogen atoms directly attached to the ring carbon atoms
- U C07D 295/04 · with substituted hydrocarbon radicals attached to ring nitrogen atoms
  - M C07D 295/10 · · substituted by doubly bound oxygen or sulfur/sulphur atoms (~~acylated ring nitrogen atoms C07D 295/16~~)
- M C07D 301/00 - C07D 329/00** Heterocyclic compounds having oxygen atoms, with or without sulfur, selenium or tellurium/sulphur, selenium, or tellurium atoms, as ring hetero atoms
- U C07D 301/00** Preparation of oxiranes
- U C07D 301/02 · Synthesis of the oxirane ring
  - M C07D 301/22 · · by oxidation of the saturated compounds with air or molecular oxygen (of mixtures of unsaturated and saturated compounds C07D 301/04)
- M C07D 303/00** Compounds containing three-membered rings having one oxygen atom as the only ring heteroatom/hetero atom
- U C07D 303/02 · Compounds containing oxirane rings
  - U C07D 303/08 · · with hydrocarbon radicals, substituted by halogen atoms, nitro radicals or nitroso radicals
  - M C07D 303/10 · · · in which the oxirane rings are condensed with a carbocyclic ring system having three or more relevant rings (~~steroids C07J~~)
  - M C07D 303/12 · · with hydrocarbon radicals, substituted by singly or doubly bound oxygen atoms
  - M C07D 303/34 · · with hydrocarbon radicals ~~substituted by sulfur~~, substituted by sulphur, selenium or tellurium atoms
  - M C07D 303/36 · · with hydrocarbon radicals, substituted by nitrogen atoms (nitro, nitroso radicals C07D 303/08)
  - M C07D 303/38 · · with hydrocarbon radicals, substituted by carbon atoms having three bonds to heteroatoms/hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals
  - M C07D 303/48 · · ~~with hetero atoms or with carbon atoms having three bonds to hetero atoms~~; with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, directly attached to ring carbon atoms, e.g. ester or nitrile radicals
- M C07D 305/00** Heterocyclic compounds containing four-membered rings having one oxygen atom/heteroatom as the only ring hetero atoms
- U C07D 307/00** Heterocyclic compounds containing five-membered rings having one oxygen atom as the only ring hetero atom
- U C07D 307/02 · not condensed with other rings
  - U C07D 307/04 · · having no double bonds between ring members or between ring members and non-ring members
  - U C07D 307/10 · · · with substituted hydrocarbon radicals attached to ring carbon atoms
  - M C07D 307/16 · · · · Radicals substituted by carbon atoms having three bonds to hetero atoms, with at the most one bond to halogen, e.g. ester or nitrile radicals
  - U C07D 307/34 · · having two or three double bonds between ring members or between ring members and non-ring members
  - U C07D 307/38 · · · with substituted hydrocarbon radicals attached to ring carbon atoms
  - U C07D 307/40 · · · · Radicals substituted by oxygen atoms

- M C07D 307/42 . . . . Singly bound oxygen atoms ~~(two oxygen atoms bound to the same carbon atom C07D 307/46)~~
- M C07D 307/54 . . . . Radicals substituted by carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals
- U C07D 307/56 . . . with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- M C07D 307/66 . . . . Nitrogen atoms ~~(nitro radicals C07D 307/70)~~
- U C07D 307/77 . ortho- or peri-condensed with carbocyclic rings or ring systems
- U C07D 307/78 . . Benzo [b] furans; Hydrogenated benzo [b] furans
- M C07D 307/79 . . . with only hydrogen atoms, hydrocarbon or substituted hydrocarbon radicals, directly attached to carbon atoms of the hetero ring
- U C07D 309/00 Heterocyclic compounds containing six-membered rings having one oxygen atom as the only ring hetero atom, not condensed with other rings**
- U C07D 309/02 . having no double bonds between ring members or between ring members and non-ring members
- U C07D 309/08 . . with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- M C07D 309/14 . . . Nitrogen atoms not forming part of a nitro radical ~~-(nitro radical C07D 309/08)}~~
- U C07D 311/00 Heterocyclic compounds containing six-membered rings having one oxygen atom as the only hetero atom, condensed with other rings**
- U C07D 311/02 . ortho- or peri-condensed with carbocyclic rings or ring systems
- U C07D 311/04 . . Benzo[b]pyrans, not hydrogenated in the carbocyclic ring
- U C07D 311/06 . . . with oxygen or sulfur atoms directly attached in position 2
- U C07D 311/08 . . . . not hydrogenated in the hetero ring
- M C07D 311/18 . . . . . substituted otherwise than in position 3 or 7 ~~(substituted in position 4 by oxygen or sulfur C07D 311/42)~~
- U C07D 311/22 . . . with oxygen or sulfur atoms directly attached in position 4
- U C07D 311/26 . . . . with aromatic rings attached in position 2 or 3
- U C07D 311/34 . . . . . with aromatic rings attached in position 3 only
- M C07D 311/38 . . . . . 2,3-Dihydro ~~derivated~~ derivatives, e.g. isoflavanones
- M C07D 311/58 . . . other than with oxygen or ~~sulfur atoms in positions~~ sulphur atoms in position 2 or 4
- U C07D 311/70 . . . . with two hydrocarbon radicals attached in position 2 and elements other than carbon and hydrogen in position 6
- M C07D 311/72 . . . . . 3,4-Dihydro- derivatives having in position 2 at least one methyl radical and in position 6 ~~an~~ one oxygen atom, e.g. tocopherols
- U C07D 311/78 . . Ring systems having three or more relevant rings
- U C07D 311/80 . . . Dibenzopyrans; Hydrogenated dibenzopyrans
- U C07D 311/82 . . . . Xanthenes
- M C07D 311/90 . . . . . with hydrocarbon radicals, substituted by amino radicals, directly attached in position 9
- M C07D 311/94 . . condensed with rings other than six-membered ~~or with ring systems containing such rings~~
- U C07D 317/00 Heterocyclic compounds containing five-membered rings having two oxygen atoms as the only ring hetero atoms**

- U C07D 317/08 · having the hetero atoms in positions 1 and 3
- U C07D 317/10 · · not condensed with other rings
- U C07D 317/14 · · · with substituted hydrocarbon radicals attached to ring carbon atoms
- M C07D 317/28 · · · · Radicals substituted by nitrogen atoms (~~by~~ nitro radicals [C07D 317/16](#))
- M C07D 317/30 · · · · Radicals substituted by carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals
- U C07D 317/44 · · ortho- or peri-condensed with carbocyclic rings or ring systems
- U C07D 317/46 · · · condensed with one six-membered ring
- M C07D 317/48 · · · · Methyleneedioxybenzenes or hydrogenated methyleneedioxybenzenes, unsubstituted on the hetero ring
- U C07D 317/50 · · · · · with only hydrogen atoms, hydrocarbon or substituted hydrocarbon radicals, directly attached to atoms of the carbocyclic ring
- M C07D 317/58 · · · · · Radicals substituted by nitrogen atoms (~~by~~ nitro radicals [C07D 317/52](#))
- M C07D 325/00** **Heterocyclic compounds containing rings having oxygen as the only ring hetero ~~atoms~~atom according to more than one of ~~the main~~ groups [C07D 303/00](#) - [C07D 323/00](#)**
- U C07D 333/00** **Heterocyclic compounds containing five-membered rings having one sulfur atom as the only ring hetero atom**
- U C07D 333/02 · not condensed with other rings
- M C07D 333/04 · · not substituted on the ring ~~sulfur~~sulphur atom
- U C07D 333/26 · · · with hetero atoms or with carbon atoms having three bonds to hetero atoms with at the most one bond to halogen, e.g. ester or nitrile radicals, directly attached to ring carbon atoms
- U C07D 333/30 · · · · Hetero atoms other than halogen
- M C07D 333/36 · · · · · Nitrogen atoms (~~nitro, nitroso radicals~~ [C07D 333/42](#))
- M C07D 333/38 · · · · Carbon atoms having three bonds to hetero atoms; with at the most one bond to halogen, e.g. ester or nitrile radicals
- M C07D 333/40 · · · · · Thiophene-2-carboxylic acid ~~{2}~~
- U C07D 339/00** **Heterocyclic compounds containing rings having two sulfur atoms as the only ring hetero atoms**
- U C07D 339/02 · Five-membered rings
- M C07D 339/04 · · having the hetero atoms in ~~position 1,2~~positions 1 and 2, e.g. lipoic acid
- M C07D 339/06 · · having the hetero atoms in ~~position 1,3~~positions 1 and 3, e.g. cyclic dithiocarbonates
- M C07D 401/00 - C07D 421/00** **Heterocyclic compounds containing two or more hetero rings**
- NOTE**  
*Groups [C07D 401/00](#) - [C07D 421/00](#) cover compounds containing two or more relevant hetero rings at least two of which are covered by different main groups of groups [C07D 203/00](#) - [C07D 347/00](#), neither condensed among themselves nor condensed with a common carbocyclic ring or ring system.*
- M C07D 401/00** **Heterocyclic compounds containing two or more hetero rings, having nitrogen atoms as the only ring hetero atoms, at least one ring being a six-membered ring with only one nitrogen atom**
- NOTE**  
*Groups [C07D 401/00](#)-[C07D 421/00](#) cover compounds containing two or more relevant hetero rings at least two of which are covered by different main groups*

of groups ~~C07D 203/00-C07D 347/00~~, neither condensed among themselves nor condensed with a common carbocyclic ring or ring system.

**C07D 451/00 -  
C07D 521/00**

**Heterocyclic compounds containing condensed hetero ring systems**

NOTES

1. **Groups** C07D 451/00 - C07D 517/00 cover compounds containing one system of two or more relevant hetero rings condensed among themselves or condensed with a common carbocyclic ring system, with or without other non-condensed hetero rings.
2. For the purpose of classification in groups C07D 451/00 - C07D 519/00, the degree of hydrogenation of the ring system is not taken into consideration.
3. For the purpose of classification in groups C07D 451/00 - C07D 463/00, C07D 473/00 - C07D 477/00, C07D 489/00, C07D 499/00 - C07D 507/00, the wording of the groups has to be understood, in the absence of an indication to the contrary, as including ring systems further condensed with carbocyclic rings or ring systems, but excluding ring systems further condensed with other hetero rings, either directly or through a common carbocyclic ring system, e.g. sparteine is classified in group C07D 471/22, not in group C07D 455/02.
4. In groups C07D 471/00, C07D 487/00, C07D 491/00 - C07D 498/00 or C07D 513/00 - C07D 517/00, the subdivision is based on the number of relevant hetero rings.

**U C07D 471/00**

**Heterocyclic compounds containing nitrogen atoms as the only ring hetero atoms in the condensed system, at least one ring being a six-membered ring with one nitrogen atom, not provided for by groups C07D 451/00 - C07D 463/00**

U C07D 471/02

• in which the condensed system contains two hetero rings

M C07D 471/04

• • Ortho-condensed systems ~~(carbacephalosporins C07D 463/00)~~

**U C07D 473/00**

**Heterocyclic compounds containing purine ring systems**

M C07D 473/02

• with oxygen, **sulfur****sulphur**, or nitrogen atoms directly attached in positions 2 and 6

U C07D 473/04

• • two oxygen atoms

U C07D 473/06

• • • with radicals containing only hydrogen and carbon atoms, attached in position 1 or 3

M C07D 473/12

• • • • with methyl radicals in positions 1, 3, and 7, e.g. caffeine

M C07D 473/14

• • • • with two methyl radicals in positions 1 and 3 and two methyl radicals in positions 7, 8, or 9

M C07D 473/26

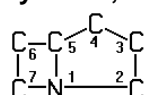
• with an oxygen, **sulfur****sulphur**, or nitrogen atom directly attached in position 2 or 6, but not in both

M C07D 473/40

• with halogen atoms or perhalogeno-alkyl radicals directly attached in **positions****position** 2 or 6

**M C07D 477/00**

**Heterocyclic compounds containing 1-azabicyclo [3.2.0] heptane ring systems, i.e. compounds containing a ring system of the formula:**



, e.g. carbapenems, thienamycins; Such ring systems being

**further condensed, e.g. 2,3-condensed with an oxygen-, nitrogen- or **sulfur****sulphur**-containing hetero ring**

M C07D 477/10

• with hydrogen atoms, hydrocarbon or substituted hydrocarbon radicals, directly attached in position 4, and with a carbon atom having three bonds to hetero atoms with at the most one bond to halogen, e.g. an ester or nitrile radical, directly attached in position 2

- M C07D 487/00** Heterocyclic compounds containing nitrogen atoms as the only ring hetero atoms in the condensed system, not provided for by **groups C07D 451/00 - C07D 477/00**
- U C07D 487/02 · in which the condensed system contains two hetero rings
- M C07D 487/04 · · Ortho-condensed systems (~~carbapenams, e.g. thienamycins, C07D 477/00~~)
- U C07D 491/00** Heterocyclic compounds containing in the condensed ring system both one or more rings having oxygen atoms as the only ring hetero atoms and one or more rings having nitrogen atoms as the only ring hetero atoms, not provided for by groups **C07D 451/00 - C07D 459/00, C07D 463/00, C07D 477/00 or C07D 489/00**
- U C07D 491/12 · in which the condensed system contains three hetero rings
- M C07D 491/14 · · Ortho-condensed systems (~~alkylenedioxy derivatives of dibenzo [a, g] quinolizines, e.g. berberine, C07D 455/03~~)
- M C07D 491/18 · · Bridged systems (~~3-oxa-9-azatricyclo [3.3.1.0<2,4>] nonane ring systems; e.g. scopolamine, C07D 451/00~~)
- M C07D 517/00** Heterocyclic compounds containing in the condensed system at least one hetero ring having selenium, tellurium, or halogen atoms as ring hetero atoms
- M C07D 521/00** Heterocyclic compounds containing unspecified hetero rings
- NOTE  
This group is only used for the classification of heterocyclic compounds the chemical structure of which **isare** not specified, i.e. only in those cases where the heterocyclic compounds cannot be classified in any of groups **C07D 201/00 - C07D 519/00**.

**Project: N/A (C07F)**

- U C07F 9/00** **Compounds containing elements of Groups 5 or 15 of the Periodic System**
- U C07F 9/02 · Phosphorus compounds (sugar phosphates **C07H 11/04**; nucleotides **C07H 19/00, C07H 21/00**; nucleic acids **C07H 21/00**)
- U C07F 9/28 · · with one or more P—C bonds
- U C07F 9/38 · · · Phosphonic acids  $RP(=O)(OH)_2$ ; Thiophosphonic acids {, i.e.  $RP(=X)(XH)_2$  (X = S, Se)}
- U C07F 9/3804 · · · · {not used, see subgroups}
- U C07F 9/3839 · · · · · {Polyphosphonic acids}
- C07F 9/3878 · · · · · {containing substituents selected from B, Si, P (**other than  $-PO_3H_2$  groups**) or a metal}(~~other than  $-PO_3H_2$  groups~~) or a metal}
- U C07F 9/40 · · · · Esters thereof
- U C07F 9/4003 · · · · · {the acid moiety containing a substituent or a structure which is considered as characteristic}
- U C07F 9/4025 · · · · · · {Esters of poly(thio)phosphonic acids}
- C07F 9/4053 · · · · · · {containing substituents selected from B, Si, P (**other than  $-PO_3H_2$  groups in free or esterified form**), or a metal}(~~other than  $-PO_3H_2$  groups in free or esterified form~~), or a metal}

**Project: RP10455 (C07G)**

- U C07G 15/00** **Hormones**

- D C07G 17/00** **{Other compounds of unknown constitution}**  
**<administratively transferred to C07G 99/00>**
- D C07G 17/002 · {containing sulfur}  
 <administratively transferred to C07G 99/002>
- D C07G 17/004 · · {derived from hydrocarbons}  
 <administratively transferred to C07G 99/0022>
- D C07G 17/006 · · · {the hydrocarbons being a terpene fraction}  
 <administratively transferred to C07G 99/0023>
- D C07G 17/008 · · {Overbased compounds}  
 <administratively transferred to C07G 99/0024>
- N C07G 99/00** **Subject matter not provided for in other groups of this subclass**
- N C07G 99/002 · {Compounds of unknown constitution containing sulfur}
- N C07G 99/0022 · · {derived from hydrocarbons}
- N C07G 99/0023 · · · {the hydrocarbons being a terpene fraction}
- N C07G 99/0024 · · {Overbased compounds}

**Project: N/A (C07K)**

- U C07K 2319/00** **Fusion polypeptide**
- U C07K 2319/01 · containing a localisation/targetting motif
- C07K 2319/08 · · containing a **chloroplasts****chloroplast** localisation signal

**Project: RP0139-F (C08F)**

- U C08F 12/00** **Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring**
- NOTE  
 {In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}
- U C08F 12/02 · Monomers containing only one unsaturated aliphatic radical
- U C08F 12/04 · · containing one ring
- U C08F 12/14 · · · substituted by hetero atoms or groups containing heteroatoms
- M C08F 12/16 · · · · Halogens
- WARNING**  
 Group C08F 12/16 is impacted by reclassification into group C08F 12/21.  
 Groups C08F 12/16 and C08F 12/21 should be considered in order to perform a complete search.
- M C08F 12/21 · · · · · {Bromine}
- WARNING**  
 Group C08F 12/21 is incomplete pending reclassification of documents from group C08F 12/16.  
 Groups C08F 12/16 and C08F 12/21 should be considered in order to perform a complete search.



**U C08F 112/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring**

NOTE

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}

U C08F 112/02 • Monomers containing only one unsaturated aliphatic radical

U C08F 112/04 • • containing one ring

M C08F 112/14 • • • substituted by hetero atoms or groups containing heteroatoms

WARNING

Group C08F 112/14 is impacted by reclassification into groups C08F 112/16, C08F 112/18, C08F 112/20, C08F 112/21, C08F 112/22, C08F 112/24, C08F 112/26, C08F 112/28, and C08F 112/30.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 112/16 • • • {Halogens}

WARNING

Groups C08F 112/16, C08F 112/18, C08F 112/20 and C08F 112/21 are incomplete pending reclassification of documents from group C08F 112/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 112/22 • • • {Oxygen}

WARNING

Groups C08F 112/22 and C08F 112/24 are incomplete pending reclassification of documents from group C08F 112/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 112/26 • • • {Nitrogen}

WARNING

Groups C08F 112/26 and C08F 112/28 are incomplete pending reclassification of documents from group C08F 112/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 112/30 • • • {Sulfur}

WARNING

Group C08F 112/30 is incomplete pending reclassification of documents from group C08F 112/14.

Groups C08F 112/14 and C08F 112/30 should be considered in order to perform a complete search.



**U C08F 212/00 Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring**

NOTE

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}

U C08F 212/02 • Monomers containing only one unsaturated aliphatic radical

U C08F 212/04 • • containing one ring

M C08F 212/14 • • • substituted by heteroatoms or groups containing heteroatoms

WARNING

Group C08F 212/14 is impacted by reclassification into groups C08F 212/16, C08F 212/18, C08F 212/20, C08F 212/21, C08F 212/22, C08F 212/24, C08F 212/26, C08F 212/28 and C08F 212/30.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 212/16 • • • {Halogens}

WARNING

Groups C08F 212/16, C08F 212/18, C08F 212/20 and C08F 212/21 are incomplete pending reclassification of documents from group C08F 212/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 212/22 • • • {Oxygen}

WARNING

Groups C08F 212/22 and C08F 212/24 are incomplete pending reclassification of documents from group C08F 212/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 212/26 • • • {Nitrogen}

WARNING

Groups C08F 212/26 and C08F 212/28 are incomplete pending reclassification of documents from group C08F 212/14.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 212/30 • • • {Sulfur}

WARNING

Group C08F 212/30 is incomplete pending reclassification of documents from group C08F 212/14.

Groups C08F 212/14 and C08F 212/30 should be considered in order to perform a complete search.

U	C08F 216/00	<p><b>Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical</b></p> <p><u>NOTE</u> {In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of <a href="#">C08F</a>.}</p>
U	C08F 216/02	<ul style="list-style-type: none"> <li>• by an alcohol radical</li> </ul>
U	C08F 216/04	<ul style="list-style-type: none"> <li>• • Acyclic compounds</li> </ul>
M	C08F 216/08	<ul style="list-style-type: none"> <li>• • • Allyl alcohol</li> </ul> <p><u>WARNING</u> Group C08F 216/08 is impacted by reclassification into group C08F 216/085. Groups C08F 216/08 and C08F 216/085 should be considered in order to perform a complete search.</p>
M	C08F 216/085	<ul style="list-style-type: none"> <li>• • • {Allyl alcohol alkoxylate}</li> </ul> <p><u>WARNING</u> Group C08F 216/085 is incomplete pending reclassification of documents from group C08F 216/08. Groups C08F 216/08 and C08F 216/085 should be considered in order to perform a complete search.</p>
U	C08F 216/12	<ul style="list-style-type: none"> <li>• by an ether radical</li> </ul>
U	C08F 216/14	<ul style="list-style-type: none"> <li>• • Monomers containing only one unsaturated aliphatic radical</li> </ul>
M	C08F 216/1416	<ul style="list-style-type: none"> <li>• • • {Monomers containing oxygen in addition to the ether oxygen, e.g. allyl glycidyl ether}</li> </ul> <p><u>WARNING</u> Group C08F 216/1416 is impacted by reclassification into groups C08F 216/1425, C08F 216/1433, C08F 216/1441 and C08F 216/145. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	C08F 216/1425	<ul style="list-style-type: none"> <li>• • • {Monomers containing side chains of polyether groups}</li> </ul> <p><u>WARNING</u> Groups C08F 216/1425, C08F 216/1433, C08F 216/1441 and C08F 216/145 are incomplete pending reclassification of documents from group C08F 216/1416. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	C08F 216/1466	<ul style="list-style-type: none"> <li>• • • {Monomers containing sulfur}</li> </ul> <p><u>WARNING</u> Group C08F 216/1466 is impacted by reclassification into groups C08F 216/1475, C08F 216/1483 and C08F 216/1491. All groups listed in this Warning should be considered in order to perform a complete search.</p>

M C08F 216/1475      · · · · {Monomers containing sulfur and oxygen}

**WARNING**

Groups C08F 216/1475, C08F 216/1483 and C08F 216/1491 are incomplete pending reclassification of documents from group C08F 216/1466.

All groups listed in this warning should be considered in order to perform a complete search.

**M C08F 218/00**      **Copolymers {of compounds} having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid**

NOTE

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}

**WARNING**

Group C08F 218/00 is impacted by reclassification into groups C08F 218/20, C08F 218/22 and C08F 218/24.

All groups listed in this Warning should be considered in order to perform a complete search.

M C08F 218/20      · {Esters containing halogen}

**WARNING**

Groups C08F 218/20, C08F 218/22 and C08F 218/24 are incomplete pending reclassification of documents from group C08F 218/00.

All groups listed in this Warning should be considered in order to perform a complete search.

**U C08F 220/00**      **Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and only one being terminated by only one carboxyl radical or a salt, anhydride ester, amide, imide or nitrile thereof**

NOTE

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}

U C08F 220/02      · Monocarboxylic acids having less than ten carbon atoms; Derivatives thereof

U C08F 220/10      · · Esters

U C08F 220/12      · · · of monohydric alcohols or phenols

U C08F 220/16      · · · · of phenols or of alcohols containing two or more carbon atoms

M C08F 220/18      · · · · · with acrylic or methacrylic acids

**WARNING**

Group C08F 220/18 is impacted by reclassification into groups C08F 220/1802, C08F 220/1803, C08F 220/1804, C08F 220/1805, C08F 220/1806, C08F 220/1807, C08F 220/1808, C08F 220/1809, C08F 220/1811, C08F 220/1812, and C08F 220/1818.

All groups listed in this Warning should be considered in order to perform a complete search.

M	C08F 220/1802	• • • • • {C <sub>2</sub> -(meth)acrylate, e.g. ethyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1802 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1802 should be considered in order to perform a complete search.
M	C08F 220/1803	• • • • • {C <sub>3</sub> -(meth)acrylate, e.g. (iso)propyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1803 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1803 should be considered in order to perform a complete search.
M	C08F 220/1804	• • • • • {C <sub>4</sub> -(meth)acrylate, e.g. butyl (meth)acrylate, isobutyl (meth)acrylate or tert-butyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1804 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1804 should be considered in order to perform a complete search.
M	C08F 220/1805	• • • • • {C <sub>5</sub> -(meth)acrylate, e.g. pentyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1805 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1805 should be considered in order to perform a complete search.
M	C08F 220/1806	• • • • • {C <sub>6</sub> -(meth)acrylate, e.g. (cyclo)hexyl (meth)acrylate or phenyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1806 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1806 should be considered in order to perform a complete search.
M	C08F 220/1807	• • • • • {C <sub>7</sub> -(meth)acrylate, e.g. heptyl (meth)acrylate or benzyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1807 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1807 should be considered in order to perform a complete search.
M	C08F 220/1808	• • • • • {C <sub>8</sub> -(meth)acrylate, e.g. isooctyl (meth)acrylate or 2-ethylhexyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1808 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1808 should be considered in order to perform a complete search.

M	C08F 220/1809	. . . . . {C <sub>9</sub> -(meth)acrylate}
		<u>WARNING</u> Group C08F 220/1809 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1809 should be considered in order to perform a complete search.
M	C08F 220/1811	. . . . . {C <sub>10</sub> or C <sub>11</sub> -(Meth)acrylate, e.g. isodecyl (meth)acrylate, isobornyl (meth)acrylate or 2-naphthyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1811 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1811 should be considered in order to perform a complete search.
M	C08F 220/1812	. . . . . {C <sub>12</sub> -(meth)acrylate, e.g. lauryl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1812 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1812 should be considered in order to perform a complete search.
M	C08F 220/1818	. . . . . {C <sub>13</sub> or longer chain (meth)acrylate, e.g. stearyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/1818 is incomplete pending reclassification of documents from group C08F 220/18. Groups C08F 220/18 and C08F 220/1818 should be considered in order to perform a complete search.
U	C08F 220/26	. . . Esters containing oxygen in addition to the carboxy oxygen
M	C08F 220/28	. . . . containing no aromatic rings in the alcohol moiety
		<u>WARNING</u> Group C08F 220/28 is impacted by reclassification into groups C08F 220/281, C08F 220/282, C08F 220/283, C08F 220/285, C08F 220/286, C08F 220/287 and C08F 220/288. All groups listed in this Warning should be considered in order to perform a complete search.
M	C08F 220/281	. . . . {and containing only one oxygen, e.g. furfuryl (meth)acrylate or 2-methoxyethyl (meth)acrylate}
		<u>WARNING</u> Group C08F 220/281 is incomplete pending reclassification of documents from group C08F 220/28. C08F 220/28 and C08F 220/281 should be considered in order to perform a complete search.
M	C08F 220/282	. . . . {and containing two or more oxygen atoms}
		<u>WARNING</u> Group C08F 220/282 is incomplete pending reclassification of documents from group C08F 220/28. Groups C08F 220/28 and C08F 220/282 should be considered in order to perform a complete search.

- M C08F 220/283 . . . . {and containing one or more carboxylic moiety in the chain, e.g. acetoacetoxyethyl(meth)acrylate}
- WARNING  
Group C08F 220/283 is incomplete pending reclassification of documents from group C08F 220/28.  
Groups C08F 220/28 and C08F 220/283 should be considered in order to perform a complete search.
- M C08F 220/285 . . . . {and containing a polyether chain in the alcohol moiety}
- WARNING  
Groups C08F 220/285, C08F 220/286, C08F 220/287 and C08F 220/288 are incomplete pending reclassification of documents from group C08F 220/28.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 220/30 . . . . containing aromatic rings in the alcohol moiety
- WARNING  
Group C08F 220/30 is impacted by reclassification into groups C08F 220/301, C08F 220/302, C08F 220/303, C08F 220/305, C08F 220/306, C08F 220/307 and C08F 220/308.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 220/301 . . . . {and one oxygen in the alcohol moiety}
- WARNING  
Group C08F 220/301 is incomplete pending reclassification of documents from group C08F 220/30.  
C08F 220/30 and C08F 220/301 should be considered in order to perform a complete search.
- M C08F 220/302 . . . . {and two or more oxygen atoms in the alcohol moiety}
- WARNING  
Group C08F 220/302 is incomplete pending reclassification of documents from group C08F 220/30.  
C08F 220/30 and C08F 220/302 should be considered in order to perform a complete search.
- M C08F 220/303 . . . . {and one or more carboxylic moieties in the chain}
- WARNING  
Group C08F 220/303 is incomplete pending reclassification of documents from group C08F 220/30.  
C08F 220/30 and C08F 220/303 should be considered in order to perform a complete search.
- M C08F 220/305 . . . . {and containing a polyether chain in the alcohol moiety}
- WARNING  
Groups C08F 220/305, C08F 220/306, C08F 220/307 and C08F 220/308 are incomplete pending reclassification of documents from group C08F 220/30.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M C08F 220/32 . . . containing epoxy radicals
- WARNING  
Group C08F 220/32 is impacted by reclassification into group C08F 220/325.  
Groups C08F 220/32 and C08F 220/325 should be considered in order to perform a complete search.
- M C08F 220/325 . . . {containing glycidyl radical, e.g. glycidyl (meth)acrylate}
- WARNING  
Group C08F 220/325 is incomplete pending reclassification of documents from group C08F 220/32.  
Groups C08F 220/32 and C08F 220/325 should be considered in order to perform a complete search.
- M C08F 220/34 . . . Esters containing nitrogen {, e.g. N,N-dimethylaminoethyl (meth)acrylate}
- WARNING  
Group C08F 220/34 is impacted by reclassification into groups C08F 220/343 and C08F 220/346.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 220/343 . . . {in the form of urethane links}
- WARNING  
Groups C08F 220/343 and C08F 220/346 are incomplete pending reclassification of documents from group C08F 220/34.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 220/36 . . . containing oxygen in addition to the carboxy oxygen {, e.g. 2-N-morpholinoethyl (meth)acrylate or 2-isocyanatoethyl (meth)acrylate}
- WARNING  
Group C08F 220/36 is impacted by reclassification into group C08F 220/365.  
Groups C08F 220/36 and C08F 220/365 should be considered in order to perform a complete search.
- M C08F 220/365 . . . {containing further carboxylic moieties}
- WARNING  
Group C08F 220/365 is incomplete pending reclassification of documents from group C08F 220/36.  
Groups C08F 220/36 and C08F 220/365 should be considered in order to perform a complete search.
- M C08F 220/38 . . . Esters containing sulfur
- WARNING  
Group C08F 220/38 is impacted by reclassification into groups C08F 220/382, C08F 220/385 and C08F 220/387.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 220/382 . . . {and containing oxygen, e.g. 2-sulfoethyl (meth)acrylate}
- WARNING  
Groups C08F 220/382, C08F 220/385 and C08F 220/387 are incomplete pending reclassification of documents from group C08F 220/38.



All groups listed in this Warning should be considered in order to perform a complete search.

- U C08F 220/52
  - Amides or imides
- U C08F 220/54
  - Amides {, e.g. N,N-dimethylacrylamide or N-isopropylacrylamide}
- M C08F 220/58
  - containing oxygen in addition to the carbonamido oxygen {, e.g. N-methylolacrylamide, N-(meth)acryloylmorpholine}

**WARNING**

Group C08F 220/58 is impacted by reclassification into group C08F 220/585.  
Groups C08F 220/58 and C08F 220/585 should be considered in order to perform a complete search.

- M C08F 220/585
  - {and containing other heteroatoms, e.g. 2-acrylamido-2-methylpropane sulfonic acid [AMPS]}

**WARNING**

Group C08F 220/585 is incomplete pending reclassification of documents from group C08F 220/58.  
Groups C08F 220/58 and C08F 220/585 should be considered in order to perform a complete search.

- M C08F 220/60
  - containing nitrogen in addition to the carbonamido nitrogen

**WARNING**

Group C08F 220/60 is impacted by reclassification into groups C08F 220/603 and C08F 220/606.  
All groups listed in this Warning should be considered in order to perform a complete search.

- M C08F 220/603
  - {and containing oxygen in addition to the carbonamido oxygen and nitrogen}

**WARNING**

Group C08F 220/603 is incomplete pending reclassification of documents from group C08F 220/60.  
Groups C08F 220/60 and C08F 220/603 should be considered in order to perform a complete search.

- M C08F 220/606
  - {and containing other heteroatoms}

**WARNING**

Group C08F 220/606 is incomplete pending reclassification of documents from group C08F 220/60.  
Groups C08F 220/60 and C08F 220/606 should be considered in order to perform a complete search.

- U C08F 222/00
  - Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides, or nitriles thereof

**NOTE**

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F.](#)}

- U C08F 222/10
  - Esters

- M C08F 222/1006
- • {of polyhydric alcohols or polyhydric phenols}
- WARNING**  
Group C08F 222/1006 is impacted by reclassification into groups C08F 222/102, C08F 222/1025, C08F 222/103, C08F 222/1035, C08F 222/104, C08F 222/1045, C08F 222/105, C08F 222/1055, C08F 222/106, C08F 222/1061, C08F 222/1063, C08F 222/1065 and C08F 222/1067.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/102
- • {of dialcohols, e.g. ethylene glycol di(meth)acrylate or 1,4-butanediol dimethacrylate}
- WARNING**  
Groups C08F 222/102 and C08F 222/1025 are incomplete pending reclassification of documents from group C08F 222/1006.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/103
- • {of trialcohols, e.g. trimethylolpropane tri(meth)acrylate}
- WARNING**  
Groups C08F 222/103 and C08F 222/1035 are incomplete pending reclassification of documents from group C08F 222/1006.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/104
- • {of tetraalcohols, e.g. pentaerythritol tetra(meth)acrylate}
- WARNING**  
Groups C08F 222/104 and C08F 222/1045 are incomplete pending reclassification of documents from group C08F 222/1006.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/105
- • {of pentaalcohols}
- WARNING**  
Groups C08F 222/105 and C08F 222/1055 are incomplete pending reclassification of documents from group C08F 222/1006.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/106
- • {Esters of polycondensation macromers}
- WARNING**  
Groups C08F 222/106, C08F 222/1061, C08F 222/1063, C08F 222/1065 and C08F 222/1067 are incomplete pending reclassification of documents from group C08F 222/1006.  
All groups listed in this Warning should be considered in order to perform a complete search.
- U C08F 222/12
- • of phenols or saturated alcohols {{C08F 222/1006 takes precedence}}
- M C08F 222/14
- • Esters having no free carboxylic acid groups {, e.g. dialkyl maleates or fumarates}
- WARNING**  
Group C08F 222/14 is impacted by reclassification into group C08F 222/145.

~~Groups C08F 222/14 and C08F 222/145 should be considered in order to perform a complete search.~~

- M C08F 222/145 . . . {the ester chains containing seven or more carbon atoms}

WARNING

~~Group C08F 222/145 is incomplete pending reclassification of documents from group C08F 222/14.~~

~~Groups C08F 222/14 and C08F 222/145 should be considered in order to perform a complete search.~~

- M C08F 222/16 . . . Esters having free carboxylic acid groups {, e.g. monoalkyl maleates or fumarates}

WARNING

~~Group C08F 222/16 is impacted by reclassification into group C08F 222/165.~~

~~Groups C08F 222/16 and C08F 222/165 should be considered in order to perform a complete search.~~

- M C08F 222/165 . . . {the ester chains containing seven or more carbon atoms}

WARNING

~~Group C08F 222/165 is incomplete pending reclassification of documents from group C08F 222/16.~~

~~Groups C08F 222/16 and C08F 222/165 should be considered in order to perform a complete search.~~

- M C08F 222/18 . . . Esters containing halogen

WARNING

~~Group C08F 222/18 is impacted by reclassification into group C08F 222/185.~~

~~Groups C08F 222/18 and C08F 222/185 should be considered in order to perform a complete search.~~

- M C08F 222/185 . . . {the ester chains containing seven or more carbon atoms}

WARNING

~~Group C08F 222/185 is incomplete pending reclassification of documents from group C08F 222/18.~~

~~Groups C08F 222/18 and C08F 222/185 should be considered in order to perform a complete search.~~

- M C08F 222/20 . . . Esters containing oxygen in addition to the carboxy oxygen

WARNING

~~Group C08F 222/20 is impacted by reclassification into group C08F 222/205.~~

~~Groups C08F 222/20 and C08F 222/205 should be considered in order to perform a complete search.~~

- M C08F 222/205 . . . {the ester chains containing seven or more carbon atoms}

WARNING

~~Group C08F 222/205 is incomplete pending reclassification of documents from group C08F 222/20.~~

~~Groups C08F 222/20 and C08F 222/205 should be considered in order to perform a complete search.~~

- M C08F 222/22
- • • Esters containing nitrogen
- WARNING  
Group C08F 222/22 is impacted by reclassification into group C08F 222/225.  
Groups C08F 222/22 and C08F 222/225 should be considered in order to perform a complete search.
- M C08F 222/225
- • • {the ester chains containing seven or more carbon atoms}
- WARNING  
Group C08F 222/225 is incomplete pending reclassification of documents from group C08F 222/22.  
Groups C08F 222/22 and C08F 222/225 should be considered in order to perform a complete search.
- M C08F 222/24
- • • Esters containing sulfur
- WARNING  
Group C08F 222/24 is impacted by reclassification into group C08F 222/245.  
Groups C08F 222/24 and C08F 222/245 should be considered in order to perform a complete search.
- M C08F 222/245
- • • {the ester chains containing seven or more carbon atoms}
- WARNING  
Group C08F 222/245 is incomplete pending reclassification of documents from group C08F 222/24.  
Groups C08F 222/24 and C08F 222/245 should be considered in order to perform a complete search.
- U C08F 222/30
- Nitriles
- M C08F 222/32
- • Alpha-cyano-acrylic acid; Esters thereof
- WARNING  
Group C08F 222/32 is impacted by reclassification into groups C08F 222/321, C08F 222/322, C08F 222/323, C08F 222/324, C08F 222/325, C08F 222/326, C08F 222/327 and C08F 222/328.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/321
- • • {Alpha-cyano-acrylic acid methyl ester}
- WARNING  
Group C08F 222/321 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/321 should be considered in order to perform a complete search.
- M C08F 222/322
- • • {Alpha-cyano-acrylic acid ethyl ester, e.g. ethyl-2-cyanoacrylate}
- WARNING  
Group C08F 222/322 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/322 should be considered in order to perform a complete search.

- M C08F 222/323     • • • {Alpha-cyano-acrylic acid propyl ester}
- WARNING  
Group C08F 222/323 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/323 should be considered in order to perform a complete search.
- M C08F 222/324     • • • {Alpha-cyano-acrylic acid butyl ester}
- WARNING  
Group C08F 222/324 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/324 should be considered in order to perform a complete search.
- M C08F 222/325     • • • {Alpha-cyano-acrylic acid pentyl ester}
- WARNING  
Group C08F 222/325 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/325 should be considered in order to perform a complete search.
- M C08F 222/326     • • • {Alpha-cyano-acrylic acid longer chain ester}
- WARNING  
Group C08F 222/326 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/326 should be considered in order to perform a complete search.
- M C08F 222/327     • • • {Alpha-cyano-acrylic acid alkoxy ester}
- WARNING  
Group C08F 222/327 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/327 should be considered in order to perform a complete search.
- M C08F 222/328     • • • {Alpha-cyano-acrylic acid with more than one oxygen in the ester moiety}
- WARNING  
Group C08F 222/328 is incomplete pending reclassification of documents from group C08F 222/32.  
Groups C08F 222/32 and C08F 222/328 should be considered in order to perform a complete search.
- U C08F 222/36        • Amides or imides
- M C08F 222/40        • • Imides, e.g. cyclic imides
- WARNING  
Group C08F 222/40 is impacted by reclassification into groups C08F 222/402, C08F 222/404, C08F 222/406 and C08F 222/408.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M C08F 222/402     • • • {Alkyl substituted imides}
- WARNING  
Group C08F 222/402 is incomplete pending reclassification of documents from group C08F 222/40.

~~Groups C08F 222/40 and C08F 222/402 should be considered in order to perform a complete search.~~

- M C08F 222/404     • • • {substituted imides comprising oxygen other than the carboxy oxygen}

WARNING

~~Groups C08F 222/404 is incomplete pending reclassification of documents from group C08F 222/40.  
Groups C08F 222/40 and C08F 222/404 should be considered in order to perform a complete search.~~

- M C08F 222/406     • • • {substituted imides comprising nitrogen other than the imide nitrogen}

WARNING

~~Groups C08F 222/406 is incomplete pending reclassification of documents from group C08F 222/40.  
Groups C08F 222/40 and C08F 222/406 should be considered in order to perform a complete search.~~

- M C08F 222/408     • • • {substituted imides comprising other heteroatoms}

WARNING

~~Groups C08F 222/408 is incomplete pending reclassification of documents from group C08F 222/40.  
Groups C08F 222/40 and C08F 222/408 should be considered in order to perform a complete search.~~

- U C08F 230/00     Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing phosphorus, selenium, tellurium or a metal (metal salts, e.g. phenolates or alcoholates, see the parent compounds)**

NOTE

{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F](#).}

- U C08F 230/04     • containing a metal

- M C08F 230/06     • • containing boron

WARNING

~~Group C08F 230/06 is impacted by reclassification into group C08F 230/065.  
Groups C08F 230/06 and C08F 230/065 should be considered in order to perform a complete search.~~

- M C08F 230/065     • • • {the monomer being a polymerisable borane, e.g. dimethyl(vinyl)borane}

WARNING

~~Group C08F 230/065 is incomplete pending reclassification of documents from group C08F 230/06.  
Groups C08F 230/06 and C08F 230/065 should be considered in order to perform a complete search.~~

- M C08F 230/08     • • containing silicon

WARNING

~~Group C08F 230/08 is impacted by reclassification into group C08F 230/085.  
Groups C08F 230/08 and C08F 230/085 should be considered in order to perform a complete search.~~

- M C08F 230/085 . . . {the monomer being a polymerisable silane, e.g. (meth)acryloyloxy trialkoxy silanes or vinyl trialkoxysilanes}

**WARNING**

Group C08F 230/085 is incomplete pending reclassification of documents from group C08F 230/08.

Groups C08F 230/08 and C08F 230/085 should be considered in order to perform a complete search.

**Project: RP10455 (C09B)****M C09B**

**ORGANIC DYES OR CLOSELY-RELATED COMPOUNDS FOR PRODUCING DYES {, e.g. PIGMENTS}; MORDANTS; LAKES (fermentation or enzyme using processes to synthesise a desired chemical compound [C12P](#))**

NOTE

In this subclass, in the absence of an indication to the contrary, a compound is classified in the last appropriate place

WARNING

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

C09B 23/01	covered by	<a href="#">C09B 23/0008</a> - <a href="#">C09B 23/0091</a>
C09B 29/01	covered by	<a href="#">C09B 29/0003</a> - <a href="#">C09B 29/0022</a>
C09B 29/03	covered by	<a href="#">C09B 29/0007</a>
C09B 29/033	covered by	<a href="#">C09B 29/0025</a>
C09B 29/036	covered by	<a href="#">C09B 29/0029</a>
C09B 29/039	covered by	<a href="#">C09B 29/0074</a> - <a href="#">C09B 29/0081</a>
C09B 29/042	covered by	<a href="#">C09B 29/0085</a>
C09B 29/045	covered by	<a href="#">C09B 29/0088</a>
C09B 29/048	covered by	<a href="#">C09B 29/0092</a>
C09B 29/085	covered by	<a href="#">C09B 29/0003</a> , <a href="#">C09B 29/0801</a> - <a href="#">C09B 29/0848</a>
C09B 29/09	covered by	<a href="#">C09B 29/0025</a> , <a href="#">C09B 29/0801</a> - <a href="#">C09B 29/0848</a>
C09B 29/15	covered by	<a href="#">C09B 29/103</a>
C09B 29/40	covered by	<a href="#">C09B 29/3608</a> - <a href="#">C09B 29/3613</a>
C09B 29/42	covered by	<a href="#">C09B 29/3617</a> - <a href="#">C09B 29/3639</a>
C09B 29/44	covered by	<a href="#">C09B 29/3643</a>
C09B 29/46	covered by	<a href="#">C09B 29/3652</a>
C09B 29/48	covered by	<a href="#">C09B 29/3656</a>
C09B 29/50	covered by	<a href="#">C09B 29/366</a>
C09B 29/52	covered by	<a href="#">C09B 29/3665</a>
C09B 33/13	covered by	<a href="#">C09B 33/12</a>
<del>C09B 46/00</del>	<del>covered by</del>	<del>C09B 27/00 - C09B 45/00</del>
C09B 67/02	covered by	<a href="#">C09B 67/0097</a>
C09B 67/04	covered by	<a href="#">C09B 67/0001</a>
C09B 67/06	covered by	<a href="#">C09B 67/0003</a>
C09B 67/08	covered by	<a href="#">C09B 67/0004</a>



C09B 67/10	covered by	<a href="#">C09B 67/0014</a>
C09B 67/12	covered by	<a href="#">C09B 67/0016</a>
C09B 67/14	covered by	<a href="#">C09B 67/0017</a>
C09B 67/16	covered by	<a href="#">C09B 67/0019</a>
C09B 67/18	covered by	<a href="#">C09B 67/002</a>
C09B 67/20	covered by	<a href="#">C09B 67/006</a>
C09B 67/22	covered by	<a href="#">C09B 67/0033</a>
C09B 67/24	covered by	<a href="#">C09B 67/0072</a>
C09B 67/26	covered by	<a href="#">C09B 67/0073</a>
C09B 67/28	covered by	<a href="#">C09B 67/0077</a>
C09B 67/30	covered by	<a href="#">C09B 67/0078</a>
C09B 67/32	covered by	<a href="#">C09B 67/0075</a>
C09B 67/34	covered by	<a href="#">C09B 67/0076</a>
C09B 67/36	covered by	<a href="#">C09B 67/0079</a>
C09B 67/38	covered by	<a href="#">C09B 67/008</a>
C09B 67/40	covered by	<a href="#">C09B 67/0082</a>
C09B 67/42	covered by	<a href="#">C09B 67/0071</a>
C09B 67/44	covered by	<a href="#">C09B 67/0083</a>
C09B 67/46	covered by	<a href="#">C09B 67/0084</a>
C09B 67/48	covered by	<a href="#">C09B 67/0025</a>
C09B 67/50	covered by	<a href="#">C09B 67/0026</a>
C09B 67/52	covered by	<a href="#">C09B 67/0027</a>
C09B 67/54	covered by	<a href="#">C09B 67/0096</a>

- U C09B 45/00**      **Complex metal compounds of azo dyes**
- U C09B 45/48      · Preparation from other complex metal compounds of azo dyes
- U C09B 45/487      · · {Cobalt complexes}
- N C09B 46/00**      **Azo dyes not provided for in groups [C09B 27/00](#) - [C09B 45/00](#)**

**Project: RP10455 (C10B)**

- M C10B 57/00**      **Other ~~processes not covered before carbonising or coking processes~~; Features of destructive distillation processes in general**

**Project: MP10323 (C10G)**

- M C10G**      **CRACKING HYDROCARBON OILS; PRODUCTION OF LIQUID HYDROCARBON MIXTURES, e.g. BY DESTRUCTIVE HYDROGENATION, OLIGOMERISATION, POLYMERISATION (cracking to hydrogen or synthesis gas [C01B](#); cracking or pyrolysis of hydrocarbon gases to individual hydrocarbons or mixtures thereof of definite or ~~specific specified~~ constitution [C07C](#); cracking to cokes [C10B](#)); RECOVERY OF HYDROCARBON OILS FROM OIL-SHALE, OIL-SAND, OR GASES; REFINING MIXTURES MAINLY CONSISTING OF HYDROCARBONS; REFORMING OF NAPHTHA; MINERAL WAXES (~~inhibiting corrosion or incrustation in general C23F~~)**

**NOTES**

1. In this subclass,
- groups [C10G 9/00](#) - [C10G 49/00](#) are limited to one-step processes;
  - combined or multi-step processes are covered by groups [C10G 51/00](#) - [C10G 69/00](#);

- refining or recovery of mineral waxes is covered by group [C10G 73/00](#)
2. In this subclass, the following terms or expressions are used with the meanings indicated:
- "in the presence of hydrogen" or "in the absence of hydrogen" mean treatments in which hydrogen, in free form or as hydrogen generating compounds, is added, or not added, respectively;
  - "hydrotreatment" is used for conversion processes as defined in group [C10G 45/00](#) or group [C10G 47/00](#);
  - "hydrocarbon oils" covers mixtures of hydrocarbons such as tar oils or mineral oils.
3. In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

#### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  
[C10G 73/23](#) covered by [C10G 73/06](#)
2. 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.

<b>U</b>	<b>C10G 1/00</b>	<b>Production of liquid hydrocarbon mixtures from oil-shale, oil-sand, or non-melting solid carbonaceous or similar materials, e.g. wood, coal (mechanical winning of oil from oil-shales, oil-sand, or the like <a href="#">B03B</a>)</b>
M	C10G 1/008	• {Controlling or regulating of liquefaction processes <del>(controlling or regulation in general G05)</del> }
M	C10G 1/02	• by distillation <del>(destructive distillation of oil-shale C10B 53/06)</del>
<b>M</b>	<b>C10G 3/00</b>	<b>Production of liquid hydrocarbon mixtures from oxygen-containing <del>or</del> organic materials, e.g. fatty oils, fatty acids (production from non-melting solid oxygen-containing carbonaceous materials <a href="#">C10G 1/00</a>; <del>preparation of individual hydrocarbons or mixtures thereof of definite or specified contribution C07C</del>)</b>
M	C10G 3/60	• {Controlling or regulating the <del>process-processes</del> <del>(controlling or regulating in general G05)</del> }
M	C10G 3/62	• {Catalyst regeneration <del>(regeneration or reactivation of catalysts in general B01J 38/00)</del> }
<b>M</b>	<b>C10G 7/00</b>	<b>Distillation of hydrocarbon oils <del>(distillation in general B01D)</del></b>
M	C10G 7/12	• Controlling or regulating <del>(controlling or regulating in general G05)</del>
<b>U</b>	<b>C10G 11/00</b>	<b>Catalytic cracking, in the absence of hydrogen, of hydrocarbon oils (cracking in direct contact with molten metals or salts <a href="#">C10G 9/34</a>)</b>
U	C10G 11/14	• with preheated moving solid catalysts
U	C10G 11/18	• • according to the "fluidised-bed" technique
M	C10G 11/185	• • • {Energy recovery from regenerator effluent gases <del>(using steam turbines, see F01K 23/064; using gas turbines, see F01K 25/14; the combined use of gas and steam turbines, see F01K 3/185)</del> }
M	C10G 11/187	• • • {Controlling or regulating <del>(controlling or regulating in general G05)</del> }
<b>M</b>	<b>C10G 21/00</b>	<b>Refining of hydrocarbon oils, in the absence of hydrogen, by extraction with selective solvents (<a href="#">C10G 17/00</a>, <a href="#">C10G 19/00</a> take precedence; <del>dewaxing oils C10G 73/02</del>)</b>
M	C10G 21/30	• Controlling or regulating <del>(controlling or regulating in general G05)</del>
<b>M</b>	<b>C10G 29/00</b>	<b>Refining of hydrocarbon oils, in the absence of hydrogen, with other chemicals</b>

M	C10G 31/00	Refining of hydrocarbon oils, in the absence of hydrogen, by methods not otherwise provided for (by distillation <a href="#">C10G 7/00</a> )
M	C10G 32/00	Refining of hydrocarbons hydrocarbon oils by electric or magnetic means, by irradiation, or by using microorganisms
U	C10G 33/00	Dewatering or demulsification of hydrocarbon oils (by distillation <a href="#">C10G 7/04</a> )
M	C10G 33/08	· Controlling or regulating <del>(controlling or regulating in general G05)</del>
U	C10G 35/00	<b>Reforming naphtha</b> <u>NOTE</u> By reforming is meant the treatment of naphtha, in order to improve the octane number or its aromatic content.
M	C10G 35/24	· Controlling or regulating of reforming operations <del>(controlling or regulating in general G05)</del>
M	C10G 45/00 - C10G 50/00	<b>Hydrotreatment processes (reforming of naphtha C10G 35/00)</b>
U	C10G 45/00	<b>Refining of hydrocarbon oils using hydrogen or hydrogen-generating compounds</b> <u>NOTE</u> Treatment of hydrocarbon oils in the presence of hydrogen-generating compounds not provided for in a single one of groups <a href="#">C10G 45/02</a> , <a href="#">C10G 45/32</a> , <a href="#">C10G 45/44</a> or <a href="#">C10G 45/58</a> is provided for in group <a href="#">C10G 49/00</a> .
U	C10G 45/58	· to change the structural skeleton of some of the hydrocarbon content without cracking the other hydrocarbons present, e.g. lowering pour point; Selective hydrocracking of normal paraffins ( <a href="#">C10G 32/00</a> takes precedence; improving or increasing the octane number or aromatic content of naphtha <a href="#">C10G 35/00</a> )
M	C10G 45/68	· · Aromatisation of hydrocarbon oil fractions <del>(of naphtha C10G 35/00)</del>
M	C10G 45/72	· Controlling or regulating <del>(controlling or regulating in general G05)</del>
M	C10G 47/00	<b>Cracking of hydrocarbon oils, in the presence of hydrogen or hydrogen-generating compounds, to obtain lower boiling fractions; (C10G 15/00 takes precedence; destructive hydrogenation of non-melting solid carbonaceous or similar materials C10G 1/06)</b>
M	C10G 47/36	· Controlling or regulating <del>(controlling or regulating in general G05)</del>
M	C10G 49/00	<b>Treatment of hydrocarbon oils, in the presence of hydrogen or hydrogen-generating compounds, not provided for in a single one of the groups <a href="#">C10G 45/02</a>, <a href="#">C10G 45/32</a>, <a href="#">C10G 45/44</a>, <a href="#">C10G 45/58</a> or <a href="#">C10G 47/00</a></b>
M	C10G 49/26	· Controlling or regulating <del>(controlling or regulating in general G05)</del>
M	C10G 50/00	<b>Production of liquid hydrocarbon mixtures from lower carbon number hydrocarbons, e.g. by oligomerisation <del>(preparation of individual hydrocarbons or mixtures thereof of definite or specified constitution G07C)</del></b>
M	C10G 51/00	<b>Treatment of hydrocarbon oils, in the absence of hydrogen, by two or more cracking processes only</b>
M	C10G 53/00	<b>Treatment of hydrocarbon oils, in the absence of hydrogen, by two or more refining processes</b>
U	C10G 53/02	· plural serial stages only
U	C10G 53/04	· · including at least one extraction step

- M C10G 53/06 . . . including only extraction steps, e.g. deasphalting by solvent treatment followed by extraction of aromatics ~~(refining in one step with two or more solvents which are introduced or withdrawn separately C10G 21/02)~~
- M C10G 55/00 Treatment of hydrocarbon oils, in the absence of hydrogen, by at least one refining process and at least one cracking process
- M C10G 57/00 Treatment of hydrocarbon oils, in the absence of ~~the~~ hydrogen, by at least one cracking process or refining process and at least one other conversion process
- M C10G 71/00 Treatment by methods not otherwise provided for of hydrocarbon oils or fatty oils for lubricating purposes ~~(by Fischer-Tropsch C07C 1/00; lubricating compositions C10M)~~
- U C10G 73/00 Recovery or refining of mineral waxes, e.g. montan wax (compositions essentially based on waxes C08L 91/00)
- U C10G 73/02 . Recovery of petroleum waxes from hydrocarbon oils; Dewaxing of hydrocarbon oils
- M C10G 73/34 . . Controlling or regulating ~~(controlling or regulating in general G05)~~
- M C10G 75/00 Inhibiting corrosion or fouling in apparatus for treatment or conversion of hydrocarbon oils, in general (C10G 7/10, C10G 9/16 take precedence; ~~protection of pipes against corrosion or incrustation F16L 58/00)~~

## Project: RP0270-F (C10N)

- U C10N 2010/00 Metal present as such or in compounds
- NOTE  
In this group, metals should be indexed according to their group of the Periodic Table.
- M C10N 2010/14 . Group 7
- WARNING  
~~Group C10N 2010/14 is impacted by reclassification into group C10N 2010/16. Groups C10N 2010/14 and C10N 2010/16 should be considered in order to perform a complete search.~~
- M C10N 2010/16 . Groups 8, 9, or 10
- WARNING  
~~Group C10N 2010/16 is incomplete pending reclassification of documents from group C10N 2010/14. Groups C10N 2010/14 and C10N 2010/16 should be considered in order to perform a complete search.~~

## Project: MP10324 (C11D)

- M C11D DETERGENT COMPOSITIONS ~~(preparations specially adapted for washing the hair A61Q 5/02, A61K 8/00; methods or apparatus for disinfection or sterilisation A61L; special washing compositions for cleaning semi-permeable membranes B01D 65/06); USE OF SINGLE SUBSTANCES AS DETERGENTS; SOAP OR SOAP-MAKING; RESIN SOAPS; RECOVERY OF GLYCEROL~~
- NOTES
1. When classifying in the mixture groups of this subclass, any individual ingredient of a composition which is not identified by such classification, and which itself is determined to be novel and non-obvious, must also be classified in

groups [C11D 1/00](#) - [C11D 9/00](#). The individual ingredient can be either a single substance or a composition in itself.

2. Any ingredient of a composition which is not identified by the classification according to Note (1) above, and which is considered to represent information of interest for search, may also be classified in groups [C11D 1/00](#) - [C11D 9/00](#). This can, for example, be the case when it is considered of interest to enable searching of compositions using a combination of classification symbols. Such non-obligatory classification should be given as "additional information".

3. {Documents classified in groups [C11D 1/37](#), [C11D 1/645](#) - [C11D 1/655](#), [C11D 1/825](#) - [C11D 1/86](#), [C11D 1/94](#) - [C11D 1/945](#) and [C11D 10/00](#) - [C11D 10/047](#), are indexed using codes chosen from [C11D 1/00](#) - [C11D 1/92](#) to provide information on the individual ingredients on the compositions.}

#### WARNING

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">C11D 1/68</a>	covered by	<a href="#">C11D 3/2003</a>
<a href="#">C11D 1/70</a>	covered by	<a href="#">C11D 3/2003</a>
<a href="#">C11D 3/44</a>	covered by	<a href="#">C11D 3/43</a>
<a href="#">C11D 3/46</a>	covered by	<a href="#">C11D 3/2079</a> , <a href="#">C11D 9/48</a>
<a href="#">C11D 3/60</a>	covered by	<a href="#">C11D 3/00</a>
<a href="#">C11D 7/18</a>	covered by	<a href="#">C11D 3/39</a>
<a href="#">C11D 7/38</a>	covered by	<a href="#">C11D 3/39</a>
<a href="#">C11D 7/42</a>	covered by	<a href="#">C11D 3/386</a>
<a href="#">C11D 7/52</a>	covered by	<a href="#">C11D 7/50</a>
<a href="#">C11D 7/54</a>	covered by	<a href="#">C11D 3/395</a>
<a href="#">C11D 7/56</a>	covered by	<a href="#">C11D 3/395</a>
<a href="#">C11D 7/60</a>	covered by	<a href="#">C11D 7/00</a>
<a href="#">C11D 9/50</a>	covered by	<a href="#">C11D 3/48</a>
<a href="#">C11D 9/60</a>	covered by	<a href="#">C11D 9/00</a>
<a href="#">C11D 10/02</a>	covered by	<a href="#">C11D 3/00</a>
<a href="#">C11D 10/06</a>	covered by	<a href="#">C11D 9/00</a>

2. 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 C11D 1/00

#### Detergent compositions based essentially on surface-active compounds; Use of these compounds as a detergent

##### NOTE

In groups [C11D 1/02](#) - [C11D 1/88](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

{This Note corresponds to IPC Note (1) relating to [C11D 1/02](#) - [C11D 1/88](#).}

- M C11D 1/008 • {Polymeric surface-active agents ~~{(see C11D 1/48, C11D 1/662, C11D 1/76)}~~}
- U C11D 1/02 • Anionic compounds {([C11D 1/002](#), [C11D 1/004](#), [C11D 1/008](#) take precedence)}
- M C11D 1/04 • • Carboxylic acids or salts thereof ~~{(see also C11D 9/005 soap C11D 9/00)}~~
- M C11D 1/10 • • • Amino- carboxylic acids; Imino- carboxylic acids; Fatty acid condensates thereof ~~{(betaines C11D 1/90)}~~
- U C11D 1/12 • • Sulfonic acids or sulfuric acid esters; Salts thereof
- M C11D 1/123 • • • {derived from carboxylic acids, e.g. sulfosuccinates ~~{(from fatty acids see C11D 1/28)}~~}
- U C11D 1/34 • • Derivatives of acids of phosphorus
- M C11D 1/342 • • • {Phosphonates; Phosphinates *or phosphonites*; *Phosphonites*}

- M C11D 1/345      • • • {Phosphates *or phosphites*; ~~Phosphites~~}
- U C11D 1/38      • Cationic compounds {(C11D 1/002, C11D 1/004, C11D 1/008 take precedence)}
- M C11D 1/385      • • {Cationic compounds containing P (~~phosphonium compounds C11D 1/60~~)}
- U C11D 1/66      • Non-ionic compounds {(C11D 1/002, C11D 1/004, C11D 1/008 take precedence)}
- M C11D 1/667      • • {Neutral esters, e.g. sorbitan esters}; ~~see also C11D 1/74 and C11D 1/78~~;
- M C11D 1/86      • ~~Fernary~~; Mixtures of anionic, cationic, and non-ionic compounds
- U C11D 1/88      • Ampholytes; Electroneutral compounds {(C11D 1/002, C11D 1/004, C11D 1/008 take precedence)}
- M C11D 1/883      • • {Aminimide (= ammonioamidates), *i.e. ammonioamidates*}
- M C11D 1/92      • • Sulfobetaines {Sulfitobetaines}; *Sulfitobetaines*}
- M C11D 1/94      • • Mixtures with anionic, cationic; or non-ionic compounds

**U C11D 3/00**      **Other compounding ingredients of detergent compositions covered in group C11D 1/00**

**NOTES**

1. In groups C11D 3/02 - C11D 3/39, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.  
{This Note corresponds to IPC Note (1) relating to C11D 3/02 - C11D 3/39.}
2. {Documents classified in group C11D 3/0005 are also classified in other groups of subclass C11D according to the chemical nature of the compounds as such.}

- U C11D 3/0005      • {Other compounding ingredients characterised by their effect}
- M C11D 3/0031      • • {Carpet, upholstery, fur; ~~and or~~ leather cleansers}
- M C11D 3/0078      • • {Compositions for cleaning contact lenses, spectacles; ~~lenses or lenses~~}; ~~(disinfecting contact lenses A61L 2/00; mechanical cleaning G02C 13/00)}~~
- U C11D 3/02      • Inorganic compounds {; Elemental compounds}
- U C11D 3/04      • • Water-soluble compounds
- M C11D 3/044      • • • {Hydroxides; *or* bases}
- U C11D 3/046      • • • {Salts}
- M C11D 3/048      • • • • {Nitrates; *or* nitrites}
- U C11D 3/12      • • Water-insoluble compounds
- M C11D 3/1213      • • • {Oxides; *or* hydroxides, e.g. Al<sub>2</sub>O<sub>3,3</sub>; TiO<sub>2</sub>, CaO; *or* Ca(OH)<sub>2</sub>}
- M C11D 3/122      • • • {Sulfur-containing, e.g. sulfates, sulfites; *or* gypsum}
- M C11D 3/1233      • • • {Carbonates, e.g. calcite; *or* dolomite}
- M C11D 3/124      • • • {Silicon containing, e.g. silica, silex, quartz; *or* glass beads}
- U C11D 3/1246      • • • • {Silicates, e.g. diatomaceous earth}
- M C11D 3/1253      • • • • • {Layer silicates, e.g. talcum, kaolin, clay, bentonite, smectite, montmorillonite, hectorite; *or* attapulgite}
- U C11D 3/128      • • • • • {Aluminium silicates, e.g. zeolites (C11D 3/1253 takes precedence)}
- M C11D 3/1293      • • • • • • {Feldspar; Perlite; ~~Pumice~~; *Pumice or* Portland cement}
- M C11D 3/14      • • • Fillers; Abrasives {; {Abrasive compositions; Suspending or absorbing agents not provided for in one single group of C11D 3/12; Specific features concerning abrasives, e.g. granulometry; *or* mixtures (dyes, pigments C11D 3/40)}
- U C11D 3/16      • Organic compounds



- U C11D 3/20 . . containing oxygen {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take precedence)}
- M C11D 3/2003 . . . {Alcohols; Phenols}
- NOTES
1. {In this group glycerol is not taken into account for applying the last place rule, when present in a mixture of alcohols or as an alternative from a series of alcohols.}
2. {In case of mixtures of alcohols or of a list of alternatives, documents are classified in C11D 3/2003, C11D 3/2006 or C11D 3/2041 and indexed for the individual alternatives using codes chosen are classified with additional symbols from C11D 3/2006 - C11D 3/2065.}
- U C11D 3/2075 . . . {Carboxylic acids-salts thereof}
- M C11D 3/2079 . . . . {Monocarboxylic acids-salts thereof {soaps C11D 10/00 - C11D 10/04}}
- M C11D 3/22 . . . Carbohydrates or derivatives thereof {(graft polymers C11D 3/3788)}
- M C11D 3/222 . . . . {Natural or synthetic polysaccharides, e.g. cellulose, starch, gum, alginic acid; or cyclodextrin}
- U C11D 3/34 . . containing sulfur {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take precedence)}
- NOTES
1. In this group in the absence of an indication to the contrary sulfur containing compounds are classified in the last appropriate place (see Note before group C11D 3/00) and indexed for the individual functional groups using codes chosen from C11D 3/3409 - C11D 3/349
2. In case of mixtures or a list of alternatives or Markush formulae each individual compound is classified and indexed according to Note 1.
- M C11D 3/3427 . . . {containing thiol, mercapto or sulfide groups, e.g. thioethers; or mercaptals}
- M C11D 3/3481 . . . {containing sulfur in a heterocyclic ring, e.g. sultones; or sulfolanes}
- M C11D 3/349 . . . {additionally containing nitrogen atoms, e.g. nitro, nitroso, amino, imino, nitrilo, nitrile groups containing compounds or their derivatives; or thio urea}
- U C11D 3/36 . . containing phosphorus {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take precedence)}
- M C11D 3/361 . . . {Phosphonates, phosphinates; or phosphonites}
- M C11D 3/362 . . . {Phosphates; or phosphites}
- M C11D 3/37 . . Polymers {(polymeric surface-active agents C11D 1/008; carbohydrates C11D 3/22; polysaccharides C11D 3/222)}
- U C11D 3/3703 . . . {Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- M C11D 3/3715 . . . . {Polyesters or polycarbonates}; Polycarbonates}
- M C11D 3/3719 . . . . {Polyamides or polyimides}; Polyimides}
- M C11D 3/3723 . . . . {Polyamines; or polyalkyleneimines}
- U C11D 3/3746 . . . {Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- M C11D 3/3749 . . . . {Polyolefins; Halogenated polyolefins; Natural or synthetic rubber; Polyarylolefins; Halogenated Polyarylolefins or halogenated polyarylolefins}
- M C11D 3/3769 . . . . {(Co)polymerised monomers containing nitrogen, e.g. carbonamides, nitriles; or amines}
- M C11D 3/3796 . . . {Amphoteric polymers or zwitterionic polymers}; Zwitterionic polymers}



- U C11D 3/38 . . Products with no well-defined composition {, e.g. natural products}
- M C11D 3/386 . . . Preparations containing enzymes {, e.g. protease; *or* amylase}
- M C11D 3/38636 . . . . {containing enzymes other than protease, amylase, lipase, cellulase, oxidase; *or* reductase}
- M C11D 3/38654 . . . . {containing oxidase; *or* reductase}
- M C11D 3/38663 . . . . {Stabilised liquid enzyme compositions (~~chemically modified or immobilised enzymes C11D 3/386, C12N~~)}
- U C11D 3/39 . Organic or inorganic per-compounds
- U C11D 3/3902 . . {combined with specific additives}
- M C11D 3/3905 . . . {Bleach activators *or bleach catalysts*; ~~Bleach-catalysts~~}

**NOTES**

1. {In the absence of an indication to the contrary activators or catalysts are classified in the last appropriate place.}
2. {In case of mixtures or a list of alternatives documents are classified in [C11D 3/3905](#) or [C11D 3/3907](#) only and ~~indexed for~~ the individual alternatives *using codes chosen are classified with additional symbols* from [C11D 3/3907](#) - [C11D 3/3932](#).}

- U C11D 3/3907 . . . . {Organic compounds}
- U C11D 3/3917 . . . . . {Nitrogen-containing compounds}
- M C11D 3/3925 . . . . . . {Nitriles; ~~Isocyanates~~; *Quarternary/Isocyanates or quarternary ammonium nitriles*}
- M C11D 3/3927 . . . . . . {Quarternary ammonium compounds (~~quarternary ammonium nitriles C11D 3/3925~~)}
- M C11D 3/395 . Bleaching agents (~~(per-compounds C11D 3/39)~~)

**M C11D 7/00 Compositions of detergents based essentially on non-surface-active compounds****NOTE**

In ~~the absence of an indication to the contrary, in groups~~ *groups* [C11D 7/02](#) - [C11D 7/46](#), *the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary*, a compound is classified in the last appropriate place.

- U C11D 7/22 . Organic compounds
- U C11D 7/26 . . containing oxygen
- M C11D 7/264 . . . {Aldehydes; Ketones; Acetals *or ketals*; ~~Ketals~~}
- M C11D 7/265 . . . {Carboxylic acids *or salts thereof*; ~~Salts thereof~~}
- M C11D 7/266 . . . {Esters *or carbonates*; ~~Carbonates~~}
- M C11D 7/268 . . . {Carbohydrates *or derivatives thereof*; ~~Derivatives thereof~~}
- U C11D 7/32 . . containing nitrogen
- M C11D 7/3218 . . . {Alkanolamines *or alkanolamines*; ~~Alkanolamines~~}
- M C11D 7/3236 . . . {Aldehydes, ketones, acetals; *or* ketals thereof}
- M C11D 7/3263 . . . {Amides *or imides*; ~~Imides~~}
- M C11D 7/3272 . . . {Urea, *guanidine or derivatives thereof*; ~~Guanidine; Derivatives thereof~~}
- M C11D 7/329 . . . {Carbohydrate; *or* derivatives thereof}
- U C11D 7/50 . Solvents

- M C11D 7/5004
- {Organic solvents}
- NOTE**  
*{In this group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.}*
- U C11D 7/5036
- {Azeotropic mixtures containing halogenated solvents}
- U C11D 7/5068
- • {Mixtures of halogenated and non-halogenated solvents}
- M C11D 7/5095
- • • {Mixtures including solvents containing other heteroatoms than oxygen, e.g. nitriles, amides, nitroalkanes, siloxanes; *or* thioethers}
- U C11D 9/00**
- Compositions of detergents based essentially on soap (compositions containing resin soap [C11D 15/04](#))**
- NOTE**  
 In groups [C11D 9/06](#) - [C11D 9/42](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, a compound is classified in the last appropriate place. {This Note corresponds to IPC Note (1) relating to [C11D 9/06](#) - [C11D 9/42](#).}
- M C11D 9/005
- {Synthetic soaps (~~see also C11D 1/04~~)}
- U C11D 9/04
- containing compounding ingredients other than soaps
- M C11D 9/045
- • {containing substances which prevent the deterioration of soaps, e.g. light or heat stabilisers; *or* antioxidants}
- U C11D 9/22
- • Organic compounds {, e.g. vitamins}
- U C11D 9/26
- • • containing oxygen {([C11D 9/225](#) takes precedence)}
- M C11D 9/267
- • • • {containing free fatty acids (~~see also C11D 9/48~~)}
- M C11D 9/44
- • Perfumes; Colouring materials; Brightening agents (~~Bleaching agents~~); *Bleaching agents*}
- M C11D 11/00**
- Special methods for preparing compositions containing mixtures of detergents ~~{(in the form of blocks, bars, tablets C11D 17/0047)}~~; Methods for using cleaning compositions}**
- M C11D 11/0005
- {Special cleaning *and/or* washing methods}
- U C11D 11/0011
- • {characterised by the objects to be cleaned}
- U C11D 11/0023
- • • {"Hard" surfaces}
- M C11D 11/0029
- • • • {Metals (~~degreasing metals C23G 5/00~~)}
- M C11D 11/0035
- • • • {*Glass Glasses or plastics*}; ~~Plastics~~}
- M C11D 11/0041
- • • • {Industrial or commercial equipment, e.g. reactors, tubes; *or* engines ([C11D 11/0047](#) takes precedence)}
- M C11D 11/0047
- • • • {Electronic devices, e.g. PCBs; *or* semiconductors}
- M C11D 11/0052
- • • • {Mineral surfaces, e.g. stones, frescoes, plaster, walls; *or* concrete}
- M C11D 11/0082
- {one or more of the detergent ingredients being in a liquefied state, e.g. slurry, paste; *or* melt, and the process resulting in solid detergent particles such as granules, powders or beads}
- M C11D 11/0094
- {Process for making liquid detergent compositions, e.g. slurries, pastes; *or* gels}
- U C11D 13/00**
- Making of soap or soap solutions in general; Apparatus therefor (resin soap [C11D 15/00](#))**
- M C11D 13/08
- Colouring, ~~{, e.g. striated bars, striped bars~~ *or striped bars,* } or perfuming
- U C11D 13/14
- Shaping

- M C11D 13/20 · · in the form of small particles, e.g. powder, ~~flakes~~ **or flakes**(~~by slicing C11D 13/24~~)
- M C11D 13/26 · Drying (~~drying ovens F27~~)
- M C11D 17/00 **Detergent materials **or soaps** characterised by their shape or physical properties ~~{(soaps C11D 9/00, shaping soap C11D 13/00) shaping soap C11D 13/14}~~**
- U C11D 17/0008 · {aqueous liquid non soap compositions ([C11D 3/0015](#), [C11D 3/3947](#), [C11D 3/3956](#) take precedence)}
- M C11D 17/0026 · · {Structured liquid compositions, e.g. liquid crystalline phases; **or** network containing non-Newtonian phase; ~~(thixotropic solutions C11D 17/003)}~~
- M C11D 17/003 · · {Colloidal solutions, e.g. gels; Thixotropic solutions **or pastes**}; ~~Pastes~~
- U C11D 17/04 · combined with or containing other objects
- U C11D 17/041 · · {Compositions releasably affixed on a substrate or incorporated into a dispensing means}
- M C11D 17/042 · · · {Water soluble or water disintegrable containers or substrates containing cleaning compositions or additives for cleaning compositions ~~(packaging of disintegrable, dissolvable or edible materials B65D 65/46)}~~
- M C11D 19/00 **Recovery of glycerol from a saponification liquor** (~~refining glycerol C07C 31/22~~)

## Project: RP10451 (C23C)

- M C23C 2/00 - C23C 6/00 **Coating by applying the coating material in the molten state** (~~casting B22D, e.g. B22D 19/08, B22D 23/04, B29; built-up welding B23K, e.g. B23K 5/18, B23K 9/04~~)
- C C23C 2/00 **Hot-dipping or immersion processes for applying the coating material in the molten state without affecting the shape; Apparatus therefor**
- WARNING**  
Group [C23C 2/00](#) is impacted by reclassification into groups [C23C 2/325](#), [C23C 2/50](#) - [C23C 2/544](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- C C23C 2/003 · {Apparatus; ~~e.g. crucibles, heating devices~~}
- WARNING**  
Group [C23C 2/003](#) is impacted by reclassification into groups [C23C 2/0032](#) - [C23C 2/004](#), [C23C 2/325](#), [C23C 2/50](#) - [C23C 2/544](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/0032 · · {specially adapted for batch coating of substrate}
- WARNING**  
Groups [C23C 2/0032](#) and [C23C 2/00322](#) are incomplete pending reclassification of documents from groups [C23C 2/003](#), [C23C 2/006](#) and [C23C 2/02](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/00322 · · · {Details of mechanisms for immersing or removing substrate from molten liquid bath, e.g. basket or lifting mechanism}

- N C23C 2/0034
- • {Details related to elements immersed in bath}
- WARNING  
Groups [C23C 2/0034](#) - [C23C 2/00348](#) are incomplete pending reclassification of documents from groups [C23C 2/003](#), [C23C 2/006](#) and [C23C 2/02](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/00342
- • • {Moving elements, e.g. pumps or mixers}
- N C23C 2/00344
- • • • {Means for moving substrates, e.g. immersed rollers or immersed bearings}
- N C23C 2/00348
- • • {Fixed work supports or guides}
- N C23C 2/0035
- • {Means for continuously moving substrate through, into or out of the bath ([C23C 2/00344](#) takes precedence)}
- WARNING  
Group [C23C 2/0035](#) is incomplete pending reclassification of documents from groups [C23C 2/003](#), [C23C 2/006](#) and [C23C 2/02](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/0036
- • {Crucibles}
- WARNING  
Groups [C23C 2/0036](#) - [C23C 2/00362](#) are incomplete pending reclassification of documents from groups [C23C 2/003](#), [C23C 2/006](#) and [C23C 2/02](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/00361
- • • {characterised by structures including means for immersing or extracting the substrate through confining wall area}
- N C23C 2/00362
- • • • {Details related to seals, e.g. magnetic means}
- N C23C 2/0038
- • {characterised by the pre-treatment chambers located immediately upstream of the bath or occurring locally before the dipping process}
- WARNING  
Groups [C23C 2/0038](#) and [C23C 2/004](#) are incomplete pending reclassification of documents from groups [C23C 2/003](#), [C23C 2/006](#) and [C23C 2/02](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/004
- • • {Snouts}
- C C23C 2/006
- {Pattern or selective **deposit without pre-treatment of the material to be coated deposits**}
- WARNING  
Group [C23C 2/006](#) is impacted by reclassification into groups [C23C 2/0032](#), [C23C 2/00322](#), [C23C 2/0034](#), [C23C 2/00342](#), [C23C 2/00344](#), [C23C 2/00348](#), [C23C 2/0035](#), [C23C 2/0036](#), [C23C 2/00361](#), [C23C 2/00362](#), [C23C 2/0038](#), [C23C 2/004](#), [C23C 2/0062](#), [C23C 2/0064](#), [C23C 2/50](#), [C23C 2/51](#), [C23C 2/52](#), [C23C 2/521](#), [C23C 2/522](#), [C23C 2/523](#), [C23C 2/524](#), [C23C 2/5245](#), [C23C 2/525](#), [C23C 2/526](#), [C23C 2/54](#), [C23C 2/542](#) and [C23C 2/544](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N C23C 2/0062
- {without pre-treatment of the material to be coated, e.g. using masking elements such as casings, shields, fixtures or blocking elements}
- WARNING  
Group [C23C 2/0062](#) is incomplete pending reclassification of documents from group [C23C 2/006](#).  
Groups [C23C 2/006](#) and [C23C 2/0062](#) should be considered in order to perform a complete search.
- N C23C 2/0064
- {using masking layers}
- WARNING  
Group [C23C 2/0064](#) is incomplete pending reclassification of documents from group [C23C 2/006](#).  
Groups [C23C 2/0064](#) and [C23C 2/006](#) should be considered in order to perform a complete search.
- C C23C 2/02
- Pretreatment of the material to be coated, e.g. for coating on selected surface areas ([C23C 2/30](#) takes precedence)
- WARNING  
Group [C23C 2/02](#) is impacted by reclassification into groups [C23C 2/022](#), [C23C 2/0222](#), [C23C 2/0224](#), [C23C 2/024](#), [C23C 2/026](#), [C23C 2/0032](#) - [C23C 2/004](#), [C23C 2/325](#) and [C23C 2/50](#) - [C23C 2/544](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/022
- {by heating}
- WARNING  
Groups [C23C 2/022](#) - [C23C 2/0224](#) are incomplete pending reclassification of documents from group [C23C 2/02](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/0222
- • {in a reactive atmosphere, e.g. oxidising or reducing atmosphere ([C23C 2/024](#) takes precedence)}
- N C23C 2/0224
- • {Two or more thermal pretreatments}
- N C23C 2/024
- {by cleaning or etching}
- WARNING  
Group [C23C 2/024](#) is incomplete pending reclassification of documents from group [C23C 2/02](#).  
Groups [C23C 2/02](#) and [C23C 2/024](#) should be considered in order to perform a complete search.
- N C23C 2/026
- {Deposition of sublayers, e.g. adhesion layers or pre-applied alloying elements or corrosion protection}
- WARNING  
Group [C23C 2/026](#) is incomplete pending reclassification of documents from group [C23C 2/02](#).  
Groups [C23C 2/02](#) and [C23C 2/026](#) should be considered in order to perform a complete search.
- C C23C 2/14
- Removing excess of molten coatings; Controlling or regulating the coating thickness
- WARNING  
Group [C23C 2/14](#) is impacted by reclassification into groups [C23C 2/50](#) - [C23C 2/544](#).

*All groups listed in this Warning should be considered in order to perform a complete search.*

- C C23C 2/26
- After-treatment ([C23C 2/14](#) takes precedence)

**WARNING**

*Group [C23C 2/26](#) is impacted by reclassification into groups [C23C 2/261](#), [C23C 2/325](#) and [C23C 2/50 - C23C 2/544](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

- N C23C 2/261
- {in a gas atmosphere, e.g. inert or reducing atmosphere}

**WARNING**

*Group [C23C 2/261](#) is incomplete pending reclassification of documents from groups [C23C 2/26](#), [C23C 2/265](#), [C23C 2/28](#) and [C23C 2/285](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

- C C23C 2/265
- {by applying solid particles to the molten coating}

**WARNING**

*Group [C23C 2/265](#) is impacted by reclassification into group [C23C 2/261](#). Groups [C23C 2/265](#) and [C23C 2/261](#) should be considered in order to perform a complete search.*

- C C23C 2/28
- Thermal ~~aftertreatment~~*after-treatment*, e.g. treatment in oil bath

**WARNING**

*Group [C23C 2/28](#) is impacted by reclassification into groups [C23C 2/261](#) and [C23C 2/29](#).*

*Groups [C23C 2/28](#), [C23C 2/261](#) and [C23C 2/29](#) should be considered in order to perform a complete search.*

- C C23C 2/285
- • • {for remelting the coating}

**WARNING**

*Group [C23C 2/285](#) is impacted by reclassification into group [C23C 2/261](#). Groups [C23C 2/285](#) and [C23C 2/261](#) should be considered in order to perform a complete search.*

- N C23C 2/29
- • • {Cooling or quenching}

**WARNING**

*Group [C23C 2/29](#) is incomplete pending reclassification of documents from group [C23C 2/28](#).*

*Groups [C23C 2/28](#) and [C23C 2/29](#) should be considered in order to perform a complete search.*

- U C23C 2/32
- using vibratory energy applied to the bath or substrate ([C23C 2/14](#) takes precedence)

- N C23C 2/325
- {Processes or devices for cleaning the bath}

**WARNING**

*Group [C23C 2/325](#) is incomplete pending reclassification of documents from groups [C23C 2/00](#), [C23C 2/003](#), [C23C 2/02](#) and [C23C 2/26](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

- U C23C 2/34
- characterised by the shape of the material to be treated ([C23C 2/14](#) takes precedence)

- U C23C 2/36
- • Elongated material



- U C23C 2/40 · · · Plates; Strips
- U C23C 2/405 · · · · {Plates of specific length}
- N C23C 2/50 · {Controlling or regulating the coating processes ([C23C 2/14](#) takes precedence)}
- WARNING**  
Groups [C23C 2/50](#) - [C23C 2/544](#) are incomplete pending reclassification of documents from groups [C23C 2/00](#), [C23C 2/003](#), [C23C 2/006](#), [C23C 2/02](#), [C23C 2/14](#) and [C23C 2/26](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N C23C 2/51 · · {Computer-controlled implementation}
- N C23C 2/52 · · {with means for measuring or sensing}
- N C23C 2/521 · · · {Composition of the bath}
- N C23C 2/522 · · · {Temperature of the bath}
- N C23C 2/523 · · · {Bath level or amount}
- N C23C 2/524 · · · {Position of the substrate}
- N C23C 2/5245 · · · · {for reducing vibrations of the substrate}
- N C23C 2/525 · · · {Speed of the substrate}
- N C23C 2/526 · · · {for visually inspecting the surface quality of the substrate}
- N C23C 2/54 · · {of the mixing or stirring the bath}
- N C23C 2/542 · · · {using static devices separate from the substrate, e.g. a fixed plate}
- N C23C 2/544 · · · {using moving mixing devices separate from the substrate, e.g. an impeller of blade}
- M C23C 16/00 - **Chemical deposition or plating by decomposition; Contact plating** (~~solid state diffusion C23C 8/00 - C23C 12/00~~)  
C23C 20/00
- M C23C 22/00 - **Chemical surface treatment of metallic material by reaction of the surface with a reactive medium** (~~with a reactive gas C23C 8/00~~)  
C23C 30/00

## Project: RP10472 (C30B)

- U C30B 29/00 **Single crystals or homogeneous polycrystalline material with defined structure characterised by the material or by their shape**
- NOTE**  
In groups [C30B 29/02](#) - [C30B 29/58](#), in the absence of an indication to the contrary, a material is classified in the last appropriate place.
- U C30B 29/60 · characterised by shape
- D C30B 29/607 · · {Crystals of complex geometrical shape, e.g. tubes, cylinders (nanotubes C30B 29/602)}
- WARNING**  
Group C30B 29/607 is not complete, see also C30B 29/602, C30B 29/605  
<administratively transferred to [C30B 29/66](#)>

## Project: RP10455 (C30B)

- M C30B 35/00 **Apparatus ~~in general~~ *not otherwise provided for*, specially adapted for the growth, production or after-treatment of single crystals or *of* a homogeneous polycrystalline material with defined structure**



**Project: RP10455 (D03C)**

- M D03C 19/00 **Miscellaneous methods** *Methods* or devices concerned with designing or making patterns, *not provided for in other groups of this subclass*

**Project: RP0692-F (D03D)**

- M D03D 15/00 **Woven fabrics characterised by the material, structure or properties of the fibres, filaments, yarns, threads or other warp or weft elements used**

**WARNING**

Group D03D 15/00 is impacted by reclassification into groups D03D 15/20, D03D 15/208, D03D 15/217, D03D 15/225, D03D 15/233, D03D 15/242, D03D 15/25, D03D 15/275, D03D 15/283, D03D 15/30, D03D 15/37, D03D 15/40, D03D 15/41, D03D 15/50, D03D 15/52, D03D 15/527, D03D 15/547, D03D 15/553, D03D 15/573, D03D 15/587, D03D 15/60, D03D 15/62, and D03D 15/67.

All groups listed in this Warning should be considered in order to perform a complete search.

- M D03D 15/20
- characterised by the material of the fibres or filaments constituting the yarns or threads

**WARNING**

Groups D03D 15/20, D03D 15/208, D03D 15/217, D03D 15/225, D03D 15/242, D03D 15/25, D03D 15/275, and D03D 15/283 are incomplete pending reclassification of documents from group D03D 15/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M D03D 15/233
- protein-based, e.g. wool or silk

**WARNING**

Group D03D 15/233 is incomplete pending reclassification of documents from groups D03D 15/00 and D03D 15/63.

Groups D03D 15/00, D03D 15/63 and D03D 15/233 should be considered in order to perform a complete search.

- M D03D 15/292
- Conjugate, i.e. bi- or multicomponent, fibres or filaments

**WARNING**

Group D03D 15/292 is incomplete pending reclassification of documents from group D03D 15/47.

Groups D03D 15/47 and D03D 15/292 should be considered in order to perform a complete search.

- M D03D 15/30
- characterised by the structure of the fibres or filaments

**WARNING**

Group D03D 15/30 is incomplete pending reclassification of documents from group D03D 15/00.

Groups D03D 15/00 and D03D 15/30 should be considered in order to perform a complete search.

- M D03D 15/37
- with specific cross-section or surface shape

**WARNING**

Group D03D 15/37 is incomplete pending reclassification of documents from groups D03D 15/00 and D03D 15/44.

Groups D03D 15/00, D03D 15/44, and D03D 15/37 should be considered in order to perform a complete search.

- M D03D 15/40
- characterised by the structure of the yarns or threads
- WARNING  
Groups D03D 15/40 and D03D 15/41 are incomplete pending reclassification of documents from group D03D 15/00.  
Groups D03D 15/00, D03D 15/40, and D03D 15/41 should be considered in order to perform a complete search.
- M D03D 15/44
- with specific cross-section or surface shape
- WARNING  
Group D03D 15/44 is impacted by reclassification into group D03D 15/37.  
Groups D03D 15/44 and D03D 15/37 should be considered in order to perform a complete search.
- M D03D 15/47
- multicomponent, e.g. blended yarns or threads (multicomponent fibres or filaments [D03D 15/292](#))
- WARNING  
Group D03D 15/47 is impacted by reclassification into group D03D 15/292.  
Groups D03D 15/47 and D03D 15/292 should be considered in order to perform a complete search.
- M D03D 15/50
- characterised by the properties of the yarns or threads
- WARNING  
Groups D03D 15/50, D03D 15/527, D03D 15/547, D03D 15/553, D03D 15/573, and D03D 15/587 are incomplete pending reclassification of documents from group D03D 15/00.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M D03D 15/513
- heat-resistant or fireproof
- WARNING  
Group D03D 15/513 is impacted by reclassification into group D03D 15/52.  
Groups D03D 15/513 and D03D 15/52 should be considered in order to perform a complete search.
- M D03D 15/52
- thermal insulating, e.g. heating or cooling
- WARNING  
Group D03D 15/52 is incomplete pending reclassification of documents from groups D03D 15/00 and D03D 15/513.  
Groups D03D 15/00, D03D 15/513, and D03D 15/52 should be considered in order to perform a complete search.
- M D03D 15/593
- Stiff materials, e.g. cane or slat
- WARNING  
Group D03D 15/593 is impacted by reclassification into group D03D 15/67.  
Groups D03D 15/593 and D03D 15/67 should be considered in order to perform a complete search.
- M D03D 15/60
- characterised by the warp or weft elements other than yarns or threads
- WARNING  
Groups D03D 15/60 and D03D 15/62 are incomplete pending reclassification of documents from group D03D 15/00.  
Groups D03D 15/00, D03D 15/60, and D03D 15/62 should be considered in order to perform a complete search.

- M D03D 15/63
- Straps, e.g. leather straps

**WARNING**

Group D03D 15/63 is impacted by reclassification into group D03D 15/233. Groups D03D 15/63 and D03D 15/233 should be considered in order to perform a complete search.

- M D03D 15/67
- Metal wires

**WARNING**

Group D03D 15/67 is incomplete pending reclassification of documents from groups D03D 15/00 and D03D 15/593. Groups D03D 15/00, D03D 15/593, and D03D 15/67 should be considered in order to perform a complete search.

**Project: RP10455 (D04B)**

- M D04B 39/00
- Miscellaneous knitting** *Knitting* processes, apparatus, or machines, not otherwise provided for

**Project: RP10455 (D04G)**

- M D04G 5/00
- Other knotting** *Knitting not otherwise provided for*

**Project: RP0617-F (E04H)**

- U E04H 4/00
- Swimming or splash baths or pools (wave-producers for baths [A47K 3/10](#); separation [B01D](#); treatment of water [C02F](#); wave-producing pumps [F04D 35/00](#))

- M E04H 4/0006
- {Devices for producing waves in swimming pools (generating current of water in swimming pools [A63B 69/125](#))}

**WARNING**

Group E04H 4/0006 is incomplete pending reclassification of documents from groups B63B 32/00, B63B 32/20, B63B 34/70 and B63B 35/00. All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP0481-F (E04H)**

- U E04H 9/00
- Buildings, or groups of buildings, or shelters adapted to withstand or provide protection against abnormal external influences, e.g. war-like action, earthquake, extreme climate (floatable buildings [B63B](#); foundation aspects [E02D](#); building constructions in general [E04B](#); bearings or like supports allowing movement [E04B 1/36](#); special details in regard to insulation or other protection [E04B 1/62](#); supporting structures for endangered or damaged existing buildings or parts thereof [E04G 23/04](#); doors, windows [E06B 5/00](#); air-conditioning, ventilation [F24F](#); camouflage [F41H 3/00](#); cells or rooms shielded against dangerous radiation [G21F 7/00](#))

- M E04H 9/02
- withstanding earthquake or sinking of ground (foundations [E02D 27/34](#))

**WARNING**

Group E04H 9/02 is impacted by reclassification into groups E04H 9/0235 and E04H 9/0237. Groups E04H 9/02, E04H 9/0235 and E04H 9/0237 should be considered in order to perform a complete search.

- M E04H 9/021
- {Bearing, supporting or connecting constructions specially adapted for such buildings}
- WARNING**  
~~Group E04H 9/021 is impacted by reclassification into groups E04H 9/0215, E04H 9/0235 and E04H 9/0237.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M E04H 9/0215
- • {involving active or passive dynamic mass damping systems}
- WARNING**  
~~Group E04H 9/0215 is incomplete pending reclassification of documents from groups E04H 9/021 and E04H 9/04.~~  
~~Groups E04H 9/04, E04H 9/021 and E04H 9/0215 should be considered in order to perform a complete search.~~
- M E04H 9/022
- • {and comprising laminated structures of alternating elastomeric and rigid layers}
- WARNING**  
~~Group E04H 9/022 is impacted by reclassification into groups E04H 9/0235 and E04H 9/0237.~~  
~~Groups E04H 9/022, E04H 9/0235 and E04H 9/0237 should be considered in order to perform a complete search.~~
- M E04H 9/023
- • {and comprising rolling elements, e.g. balls, pins}
- WARNING**  
~~Group E04H 9/023 is impacted by reclassification into groups E04H 9/0235 and E04H 9/0237.~~  
~~Groups E04H 9/023, E04H 9/0235 and E04H 9/0237 should be considered in order to perform a complete search.~~
- M E04H 9/0235
- • {Anti-seismic devices with hydraulic or pneumatic damping}
- WARNING**  
~~Group E04H 9/0235 is incomplete pending reclassification of documents from groups E04H 9/02, E04H 9/021, E04H 9/022 and E04H 9/023.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M E04H 9/0237
- • {Structural braces with damping devices}
- WARNING**  
~~Group E04H 9/0237 is incomplete pending reclassification of documents from groups E04H 9/02, E04H 9/021, E04H 9/022 and E04H 9/023.~~  
~~All groups listed in this Warning should be considered in order to perform a complete search.~~
- M E04H 9/04
- against air-raid or other warlike actions (respiratory apparatus [A62B](#))
- WARNING**  
~~Group E04H 9/04 is impacted by reclassification into group E04H 9/0215.~~  
~~Groups E04H 9/04 and E04H 9/0215 should be considered in order to perform a complete search.~~

## Project: RP10455 (E05F)

- M E05F 7/00
- Miscellaneous accessories for wings** *Accessories for wings not provided for in other groups of this subclass* (specially adapted for furniture [A47B 95/00](#); door-lifters [B66F](#), [E04F 21/00](#); knobs or handles [E05B](#))

**Project: RP10455 (E21C)**

- M E21C 35/00 **Miscellaneous items relating to** *Details of, or accessories for*, machines for slitting or completely freeing the mineral from the seam *not provided for in groups E21C 25/00 - E21C 33/00, E21C 37/00 or E21C 39/00*

**Project: RP10455 (F01N)**

- U F01N 13/00 Exhaust or silencing apparatus characterised by constructional features {; Exhaust or silencing apparatus, or parts thereof, having pertinent characteristics not provided for in, or of interest apart from, groups [F01N 1/00](#) - [F01N 5/00](#), [F01N 9/00](#), [F01N 11/00](#)}
- U F01N 13/20 · having flared outlets, e.g. of fish-tail shape
- N F01N 99/00 *Subject matter not provided for in other groups of this subclass*

**Project: MP10335 (F02M)**

- M F02M 43/00 Fuel-injection apparatus operating simultaneously on two or more fuels, or on a liquid fuel and another liquid, e.g. the other liquid being an anti-knock additive

**Project: MP10335 (F21S)**

- U F21S 10/00 Lighting devices or systems producing a varying lighting effect
- M F21S 10/002 · {using liquids, e.g. water-~~(F21W 2121/02 takes precedence)~~}

**Project: RP10455 (F21V)**

- M F21V 37/00 **Details of lighting devices employing combustion as light source, not otherwise provided for;** ~~Night lamps; Votive lamps~~

WARNING

Groups [F21V 37/00](#) - [F21V 37/02](#) are incomplete pending reclassification of documents from group [F21L 25/00](#).

All groups listed in this Warning should be considered in order to perform a complete search.

**Project: MP10327 (F24F)**

- M F24F **AIR-CONDITIONING; AIR-HUMIDIFICATION; VENTILATION; USE OF AIR CURRENTS FOR SCREENING (removing dirt or fumes from areas where they are produced [B08B 15/00](#); vertical ducts for carrying away waste gases from buildings [E04F 17/02](#); tops for chimneys or ventilating shafts, terminals for flues [F23L 17/02](#))**

NOTES

1. This subclass covers treatment, e.g. purification, of air supplied to human living or working spaces in air conditioning systems or in room units.
2. In this subclass:
  - air-humidification as auxiliary treatment in air-conditioning, i.e. in units wherein the air is also either cooled or heated, is covered by groups [F24F 1/00](#) or [F24F 3/14](#);
  - air-humidification per se, e.g. "room humidifiers", is covered by group [F24F 6/00](#).
3. In this subclass, the following terms or expressions are used with the meanings indicated:
  - "air-conditioning" means the supply of air to or the treatment of air in rooms or spaces by means of cooling or a combination of cooling and a further kind of air treatment, e.g. humidification, heating or air purification;

- "ventilation" means the supply of air to, or its extraction from, rooms or spaces, and systems for circulating air within rooms or spaces, but does not cover the mere treatment of air being supplied to, extracted from, or circulated within, rooms or spaces.

4. In this subclass, control or safety arrangements are classified in group [F24F 11/00](#). In order to indicate the type of air-treatment system in which these arrangements are used, further classification may be made in groups [F24F 1/00](#) - [F24F 9/00](#).

**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.

- U F24F 3/00** **Air-conditioning systems in which conditioned primary air is supplied from one or more central stations to distributing units in the rooms or spaces where it may receive secondary treatment; Apparatus specially designed for such systems (room units [F24F 1/00](#))**
- M F24F 3/001 • {in which the air treatment in the central station takes place by means of a heat-pump or by means of a reversible cycle (~~regulation of heat-pump circuit in air treatment systems F25B 29/00; heat pumps F25B 13/00, F25B 29/00; reversible cycle for humidifying and drying air [F24F 3/147](#)~~)}
- U F24F 3/044 • Systems in which all treatment is given in the central station, i.e. all-air systems
- U F24F 3/0442 • • {with volume control at a constant temperature}
- M F24F 3/0444 • • • {in which two airstreams are conducted from the central station via independent conduits to the space to be treated, of which one has a constant volume and a season-adapted temperature ~~to compensate for the fluctuating heat transfer losses of the building~~, while the other ~~varies in volume and one~~ is always cold ~~in order to compensate for the interior fluctuations and variable solar heating effects, i.e. so-called "Dual Conduit System" and varies in volume~~; ~~this system is similar to a high-pressure air-water system~~}
- U F24F 3/048 • • with temperature control at constant rate of air-flow
- U F24F 3/052 • • • Multiple duct systems, e.g. systems in which hot and cold air are supplied by separate circuits from the central station to mixing chambers in the spaces to be conditioned
- M F24F 3/0525 • • • • {in which the air treated in the central station is reheated}; ~~this may take place near the central station upon arrival, in the space to be treated, in a branch pipe to zone in a multi-zone system or in the warm pipe in a system having separate supply conduits for warm and cold air~~}
- M F24F 3/0527 • • • • {in which treated air having differing temperatures is conducted through independent conduits from the central station to various spaces to be treated, i.e. so-called "multi-Zone" ~~system systems (F24F 3/0525 takes precedence)~~; ~~(F24F 3/0525 takes precedence)~~}
- U F24F 5/00** **Air-conditioning systems or apparatus not covered by [F24F 1/00](#) or [F24F 3/00](#) {, e.g. using solar heat or combined with household units such as an oven or water heater}**
- M F24F 5/0007 • {cooling apparatus specially adapted for use in air-conditioning (~~self-contained room units F24F 1/02; [F24F 5/0046](#) takes precedence; air-humidification [F24F 6/00](#)~~)}
- M F24F 5/0042 • {characterised by the application of thermo-electric units or the Peltier effect (~~refrigerators and cooling systems using magnetic or electrical effects in general F25B 21/02; for semi-conductors H01L 23/38; thermobatteries or thermogenerators H01L 35/00~~)}

- M F24F 5/0075 · {Systems using thermal walls, e.g. double window ~~(double windows per se E06B)~~}
- M F24F 5/0085 · {Systems using a compressed air circuit ~~(B64D 13/00, B60H take precedence)~~}
- U F24F 6/00 Air-humidification {, e.g. cooling by humidification}**
- M F24F 6/02 · by evaporation of water in the air ~~{(humidifiers specially adapted for radiators see F24D 19/008)}~~
- U F24F 6/04 · · using stationary unheated wet elements
- M F24F 6/043 · · · {with self-sucking action, e.g. wicks ~~(humidifiers for radiators F24D 19/008)}~~}
- U F24F 7/00 Ventilation**
- WARNING**
- Group [F24F 7/00](#) is impacted by reclassification into group [F24F 7/003](#). Groups [F24F 7/00](#) and [F24F 7/003](#) should be considered in order to perform a complete search.
- M F24F 7/04 · with ducting systems {**also, e.g.** by double walls; with natural circulation ([F24F 7/02](#) takes precedence)}
- U F24F 13/00 Details common to, or for air-conditioning, air-humidification, ventilation or use of air currents for screening**
- U F24F 13/02 · Ducting arrangements
- M F24F 13/0227 · · {using parts of the building, e.g. air ducts inside the floor, walls or ceiling of a building ~~(air ducts or channels of buildings E04F 17/04)}~~}
- M F24F 13/04 · · Air-mixing units ([F24F 13/06](#) takes precedence ~~{; room units for the mixing of pre-treated primary air with recirculated or room air F24F 1/00}~~)
- M F24F 13/22 · Means for preventing condensation or evacuating condensate ~~{(for refrigerating devices in general F25D 21/14)}~~}
- M F24F 13/24 · Means for preventing or suppressing noise ~~{(in perforated ceilings F24F 7/10)}~~}

**Project: RP0693-F (F25B)**

- U F25B 41/00 Fluid-circulation arrangements**
- M F25B 41/20 · Disposition of valves, e.g. of on-off valves or flow control valves (expansion valves [F25B 41/31](#))
- WARNING**
- Group ~~F25B 41/20~~ is impacted by reclassification into groups ~~F25B 41/24~~ and ~~F25B 41/28~~. Groups ~~F25B 41/20~~, ~~F25B 41/24~~, and ~~F25B 41/28~~ should be considered in order to perform a complete search.
- M F25B 41/22 · · between evaporator and compressor
- WARNING**
- Group ~~F25B 41/22~~ is impacted by reclassification into group ~~F25B 41/28~~. Groups ~~F25B 41/22~~ and ~~F25B 41/28~~ should be considered in order to perform a complete search.
- M F25B 41/24 · · Arrangement of shut-off valves for disconnecting a part of the refrigerant cycle, e.g. an outdoor part
- WARNING**
- Group ~~F25B 41/24~~ is incomplete pending reclassification of documents from group ~~F25B 41/20~~.



Groups F25B 41/20 and F25B 41/24 should be considered in order to perform a complete search.

- M F25B 41/26
- of fluid flow reversing valves

WARNING

Group F25B 41/26 is impacted by reclassification into group F25B 41/28. Groups F25B 41/26 and F25B 41/28 should be considered in order to perform a complete search.

- M F25B 41/28
- specially adapted for sorption cycles

WARNING

Group F25B 41/28 is incomplete pending reclassification of documents from groups F25B 41/20, F25B 41/22 and F25B 41/26. Groups F25B 41/20, F25B 41/22, F25B 41/26 and F25B 41/28 should be considered in order to perform a complete search.

- M F25B 41/30
- Expansion means; Dispositions thereof

WARNING

Group F25B 41/30 is impacted by reclassification into groups F25B 41/38, F25B 41/385, and F25B 41/39. All groups listed in this Warning should be considered in order to perform a complete search.

- M F25B 41/31
- Expansion valves

WARNING

Group F25B 41/31 is impacted by reclassification into groups F25B 41/32, F25B 41/325, F25B 41/33, F25B 41/335, F25B 41/34, F25B 41/345, F25B 41/347, F25B 41/35, F25B 41/355, and F25B 41/36. All groups listed in this Warning should be considered in order to perform a complete search.

- M F25B 41/32
- having flow rate limiting means other than the valve member, e.g. having bypass orifices in the valve body

WARNING

Group F25B 41/32 is incomplete pending reclassification of documents from group F25B 41/31. Groups F25B 41/31 and F25B 41/32 should be considered in order to perform a complete search.

- M F25B 41/325
- having two or more valve members

WARNING

Group F25B 41/325 is incomplete pending reclassification of documents from group F25B 41/31. Groups F25B 41/31 and F25B 41/325 should be considered in order to perform a complete search.

- M F25B 41/33
- with the valve member being actuated by the fluid pressure, e.g. by the pressure of the refrigerant

WARNING

Groups F25B 41/33 and F25B 41/335 are incomplete pending reclassification of documents from group F25B 41/31. Groups F25B 41/31, F25B 41/33, and F25B 41/335 should be considered in order to perform a complete search.

- M F25B 41/34
- • with the valve member being actuated by electric means, e.g. by piezo-electric actuators
- WARNING  
Groups F25B 41/34, F25B 41/345, F25B 41/347, F25B 41/35, and F25B 41/355 are incomplete pending reclassification of documents from group F25B 41/31.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M F25B 41/36
- • with the valve member being actuated by bimetal elements or shape-memory elements influenced by fluids, e.g. by the refrigerant
- WARNING  
Group F25B 41/36 is incomplete pending reclassification of documents from group F25B 41/31.  
Groups F25B 41/31 and F25B 41/36 should be considered in order to perform a complete search.
- M F25B 41/37
- • Capillary tubes
- WARNING  
Group F25B 41/37 is impacted by reclassification into group F25B 41/375.  
Groups F25B 41/37 and F25B 41/375 should be considered in order to perform a complete search.
- M F25B 41/375
- • characterised by a variable restriction, e.g. restrictors made of shape memory alloy
- WARNING  
Group F25B 41/375 is incomplete pending reclassification of documents from group F25B 41/37.  
Groups F25B 41/37 and F25B 41/375 should be considered in order to perform a complete search.
- M F25B 41/38
- • specially adapted for reversible cycles, e.g. bidirectional expansion restrictors
- WARNING  
Group F25B 41/38 is incomplete pending reclassification of documents from group F25B 41/30.  
Groups F25B 41/30 and F25B 41/38 should be considered in order to perform a complete search.
- M F25B 41/385
- • Dispositions with two or more expansion means arranged in parallel on a refrigerant line leading to the same evaporator
- WARNING  
Group F25B 41/385 is incomplete pending reclassification of documents from group F25B 41/30.  
Groups F25B 41/30 and F25B 41/385 should be considered in order to perform a complete search.
- M F25B 41/39
- • Dispositions with two or more expansion means arranged in series, i.e. multi-stage expansion, on a refrigerant line leading to the same evaporator
- WARNING  
Group F25B 41/39 is incomplete pending reclassification of documents from group F25B 41/30.  
Groups F25B 41/30 and F25B 41/39 should be considered in order to perform a complete search.

- M F25B 41/40
- Fluid line arrangements
- WARNING**  
Group F25B 41/40 is impacted by reclassification into groups F25B 41/42, F25B 41/45, and F25B 41/48.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M F25B 41/42
- Arrangements for diverging or converging flows, e.g. branch lines or junctions
- WARNING**  
Groups F25B 41/42, F25B 41/45, and F25B 41/48 are incomplete pending reclassification of documents from group F25B 41/40.  
All groups listed in this Warning should be considered in order to perform a complete search.

## Project: RP10455 (F41C)

- M F41C 27/00
- Miscellaneous attachments for smallarms; Accessories; Details or attachments not otherwise provided for**

## Project: RP10455 (G01G)

- M G01G 9/00
- Methods of, or apparatus for, the determination of weight not otherwise provided for, not provided for in groups G01G 1/00 - G01G 7/00**

## Project: MP10328 (G01N)

- U G01N 33/00
- Investigating or analysing materials by specific methods not covered by groups G01N 1/00 - G01N 31/00**
- NOTE**  
In groups [G01N 33/52](#) - [G01N 33/98](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.  
{This Note corresponds to IPC Note (1) relating to [G01N 33/52](#) - [G01N 33/98](#).}
- U G01N 33/48
- Biological material, e.g. blood, urine ([G01N 33/02](#), [G01N 33/26](#), [G01N 33/44](#), [G01N 33/46](#) take precedence); Haemocytometers (counting blood corpuscles distributed over a surface by scanning the surface [G06M 11/02](#))
- U G01N 33/50
- Chemical analysis of biological material, e.g. blood, urine; Testing involving biospecific ligand binding methods; Immunological testing (measuring or testing processes involving enzymes or microorganisms, compositions or test papers therefor; processes for forming such compositions, condition responsive control in microbiological or enzymological processes [C12Q](#))
- NOTES**
1. In this group, the following expression is used with the meaning indicated: "involving", when used in relation to a material, includes the testing for the material as well as employing the material as a determinant or reactant in a test for a different material.
  2. In groups [G01N 33/52](#) – [G01N 33/98](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
  3. Documents relating to new peptides or new DNA or its corresponding mRNA, encoding for the peptides, and their use in measuring or testing processes are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their use in

diagnostics. However, if the investigating or analysing aspects are of interest, the documents are classified in this group.

- M G01N 33/5097 . . . {involving plant cells (immunoassays of plant cells [G01N 33/56961](#); ~~unicellular algae, phytoplankton and photosynthetic bacteria in screening assays C12Q 1/025~~)}

**Project: N/A (G01N)**

- U G01N 33/53 . . . Immunoassay; Biospecific binding assay; Materials therefor
- U G01N 33/543 . . . . with an insoluble carrier for immobilising immunochemicals
- U G01N 33/54366 . . . . . {Apparatus specially adapted for solid-phase testing}
- U G01N 33/54386 . . . . . {Analytical elements}

WARNING

Group [G01N 33/54386](#) is impacted by reclassification into groups [G01N 33/54387](#), [G01N 33/54388](#), [G01N 33/54389](#) and [G01N 33/54391](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- U G01N 33/54387 . . . . . {Immunochromatographic test strips}

WARNING

Groups [G01N 33/54387](#), [G01N 33/54388](#), [G01N 33/54389](#) and [G01N 33/54391](#) are incomplete pending reclassification of documents from groups [G01N 33/54386](#) and [G01N 33/558](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- G01N 33/54391 . . . . . {based on vertical flow}

**Project: RP0596-F (G01S)**

- U G01S 7/00 **Details of systems according to groups [G01S 13/00](#), [G01S 15/00](#), [G01S 17/00](#)**

- U G01S 7/02 . . . of systems according to group [G01S 13/00](#)

- M G01S 7/023 . . {Interference mitigation, e.g. reducing or avoiding non-intentional interference with other HF-transmitters, base station transmitters for mobile communication or other radar systems, e.g. using electro-magnetic interference [EMI] reduction techniques (auxiliary means for detecting or identifying radar signals or the like [G01S 7/021](#); means for anti-jamming [G01S 7/36](#))}

WARNING

Group ~~G01S 7/023~~ is impacted by reclassification into groups ~~G01S 7/0231~~, ~~G01S 7/0232~~, ~~G01S 7/0233~~, ~~G01S 7/0234~~, ~~G01S 7/0235~~ and ~~G01S 7/0236~~. All groups listed in this Warning should be considered in order to perform a complete search.

- M G01S 7/0231 . . . {Avoidance by polarisation multiplex}

WARNING

Group ~~G01S 7/0231~~ is incomplete pending reclassification of documents from group ~~G01S 7/023~~.

Groups ~~G01S 7/023~~ and ~~G01S 7/0231~~ should be considered in order to perform a complete search.

- M G01S 7/0232      • • • {Avoidance by frequency multiplex}
- WARNING  
Group G01S 7/0232 is incomplete pending reclassification of documents from group G01S 7/023. Groups G01S 7/023 and G01S 7/0232 should be considered in order to perform a complete search.
- M G01S 7/0233      • • • {Avoidance by phase multiplex}
- WARNING  
Group G01S 7/0233 is incomplete pending reclassification of documents from group G01S 7/023. Groups G01S 7/023 and G01S 7/0233 should be considered in order to perform a complete search.
- M G01S 7/0234      • • • {Avoidance by code multiplex}
- WARNING  
Group G01S 7/0234 is incomplete pending reclassification of documents from group G01S 7/023. Groups G01S 7/023 and G01S 7/0234 should be considered in order to perform a complete search.
- M G01S 7/0235      • • • {Avoidance by time multiplex}
- WARNING  
Group G01S 7/0235 is incomplete pending reclassification of documents from group G01S 7/023. Groups G01S 7/023 and G01S 7/0235 should be considered in order to perform a complete search.
- M G01S 7/0236      • • • {Avoidance by space multiplex}
- WARNING  
Group G01S 7/0236 is incomplete pending reclassification of documents from group G01S 7/023. Groups G01S 7/023 and G01S 7/0236 should be considered in order to perform a complete search.

**Project: RP0282-F (G03G)**

- U G03G 5/00      **Recording members for original recording by exposure, e.g. to light, to heat, to electrons; Manufacture thereof; Selection of materials therefor (recording surfaces for measuring apparatus [G01D 15/34](#); photosensitive materials for photographic purposes [G03C](#))**
- U G03G 5/02      • Charge-receiving layers ([G03G 5/153](#) takes precedence)
- U G03G 5/04      • • Photoconductive layers; Charge-generation layers or charge-transporting layers; Additives therefor; Binders therefor
- U G03G 5/06      • • • characterised by the photoconductive material being organic
- NOTE  
In groups [G03G 5/06](#) - [G03G 5/0698](#), in the absence of an indication to the contrary, an invention is classified in the last appropriate place
- U G03G 5/0601      • • • • {Acyclic or carbocyclic compounds}
- U G03G 5/0612      • • • • • {containing nitrogen}

- M G03G 5/0614 . . . . . {Amines}

WARNING  
 Group G03G 5/0614 is impacted by reclassification into groups G03G 5/06142 – G03G 5/06149.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G03G 5/06142 . . . . . {arylamine}

WARNING  
 Groups G03G 5/06142 – G03G 5/061473 are incomplete pending reclassification of documents from group G03G 5/0614.  
 Groups G03G 5/0614 and G03G 5/06142 – G03G 5/061473 should be considered in order to perform a complete search.
- M G03G 5/06149 . . . . . {enamine}

WARNING  
 Group G03G 5/06149 is incomplete pending reclassification of documents from group G03G 5/0614.  
 Groups G03G 5/0614 and G03G 5/06149 should be considered in order to perform a complete search.
- U G03G 5/07 . . . . Polymeric photoconductive materials
- M G03G 5/071 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds (G03G 5/078 takes precedence)}

WARNING  
 Group G03G 5/071 is impacted by reclassification into groups G03G 5/072, G03G 5/0732, G03G 5/074 and G03G 5/0745.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G03G 5/072 . . . . . {comprising pending monoamine groups}

WARNING  
 Group G03G 5/072 is incomplete pending reclassification of documents from groups G03G 5/071 and G03G 5/073.  
 Groups G03G 5/071, G03G 5/073 and G03G 5/072 should be considered in order to perform a complete search.
- M G03G 5/073 . . . . . {comprising pending carbazole groups}

WARNING  
 Group G03G 5/073 is impacted by reclassification into group G03G 5/072.  
 Groups G03G 5/073 and G03G 5/072 should be considered in order to perform a complete search.
- M G03G 5/0732 . . . . . {comprising pending alkenylarylamine}

WARNING  
 Group G03G 5/0732 is incomplete pending reclassification of documents from group G03G 5/071.  
 Groups G03G 5/071 and G03G 5/0732 should be considered in order to perform a complete search.

- M G03G 5/074 . . . . . {comprising pending diamine}  
WARNING  
 Group G03G 5/074 is incomplete pending reclassification of documents from group G03G 5/071.  
 Groups G03G 5/071 and G03G 5/074 should be considered in order to perform a complete search.
- M G03G 5/0745 . . . . . {comprising pending hydrazone}  
WARNING  
 Group G03G 5/0745 is incomplete pending reclassification of documents from group G03G 5/071.  
 Groups G03G 5/071 and G03G 5/0745 should be considered in order to perform a complete search.
- U G03G 5/075 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds ([G03G 5/078](#) takes precedence)}
- M G03G 5/076 . . . . . {having a photoconductive moiety in the polymer backbone}  
WARNING  
 Group G03G 5/076 is impacted by reclassification into groups G03G 5/0763, G03G 5/0764, G03G 5/0765, G03G 5/0766 and G03G 5/0767.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G03G 5/0763 . . . . . {comprising arylamine moiety}  
WARNING  
 Group G03G 5/0763 – G03G 5/0766 are incomplete pending reclassification of documents from group G03G 5/076.  
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G03G 5/0767 . . . . . {comprising hydrazone moiety}  
WARNING  
 Group G03G 5/0767 is incomplete pending reclassification of documents from group G03G 5/076.  
 Groups G03G 5/076 and G03G 5/0767 should be considered in order to perform a complete search.

## Project: MP10335 (G04B)

- M G04B 15/00 Escapements ~~{(magnetic G04C 5/005; {in striking mechanisms [G04B 21/06](#);} electric or magnetic means for converting oscillatory to rotary motion in electromechanical time-pieces {G04C 5/005})}~~
- U G04B 37/00 Cases {(cases with a special shape [G04B 45/0069](#); ornamentation of the case [G04B 47/04](#); cartridges [A45C 11/00](#) - [A45C 11/38](#))}
- U G04B 37/14 . Suspending devices, supports or stands for time-pieces insofar as they form part of the case {(wrist watch straps, fastening means therefor [A44C 5/00](#))}
- M G04B 37/1473 . . {Supports and feet for supporting the clockwork (~~cases for standing clockworks in general G04B 37/0066~~cases for standing clockworks in general [G04B 37/0066](#))}



## Project: RP10455 (G06M)

**M G06M** COUNTING MECHANISMS; COUNTING OF OBJECTS NOT OTHERWISE PROVIDED FOR (counting by measuring volume or weight of articles to be counted [G01F](#), [G01G](#); computers [G06C](#) - [G06J](#); counting electric pulses [H03K](#); counting characters, words or messages in switching networks for transmission of digital information [H04L 12/08](#))

NOTE

This subclass covers:

- stepping or continuously-moving mechanical counters operated through one or more inputs applied to the lowest order mechanically or electrically;
- counting systems involving applications of either mechanical, electrical, or electronic counters.

WARNING

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

[G06M 15/00](#) covered by [G06M 1/00](#) - [G06M 11/00](#)

2. 1. {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.}

[G06M 7/00](#) -  
~~[G06M 11/00](#)~~  
[G06M 15/00](#)

Counting of objects (in machines for shaping metal without removing material [B21C 51/00](#); in printing machines or presses [B41F 33/02](#); in office copying machines [B41L 39/02](#); of axles of rail vehicles [B61L 1/16](#); in packaging machines [B65B 65/08](#); of objects conveyed through a pipe or tube [B65G 51/36](#); entry or exit registers [G07C 9/00](#))

**U G06M 11/00**

Counting of objects distributed at random, e.g. on a surface

U G06M 11/02

• using an electron beam scanning a surface line by line, e.g. of blood cells on a substrate

U G06M 11/04

• • with provision for distinguishing between different sizes of objects (investigating particle size in general [G01N 15/00](#))

**N G06M 15/00**

*Counting of objects, not otherwise provided for*

## Project: RP10455 (G10D)

**M G10D 17/00**

*Aeolian harps; Aeolian harps or singing Singing-flame musical instruments*

WARNING

Group [G10D 17/00](#) is impacted by reclassification into group [G10D 99/00](#).

Groups [G10D 17/00](#) and [G10D 99/00](#) should be considered in order to perform a complete search.

## Project: MP10335 (G11B)

**U G11B 15/00**

Driving, starting or stopping record carriers of filamentary or web form; Driving both such record carriers and heads; Guiding such record carriers or containers therefor; Control thereof; Control of operating function (driving or guiding heads [G11B 3/00](#) - [G11B 7/00](#), [G11B 21/00](#))

U G11B 15/18

• Driving; Starting; Stopping; Arrangements for control or regulation thereof {([G11B 15/56](#) takes precedence)}

U G11B 15/26

• • Driving record carriers by members acting directly or indirectly thereon {([G11B 15/44](#) takes precedence; driving features inside container, see [G11B 23/04](#) and subgroups}

M G11B 15/34

• • • through non-*skipslip* drive means, e.g. sprocket

- U G11B 20/00** **Signal processing not specific to the method of recording or reproducing; Circuits therefor**
- U G11B 20/10 · Digital recording or reproducing
  - U G11B 20/10009 · · {Improvement or modification of read or write signals}
  - U G11B 20/10046 · · · {filtering or equalising, e.g. setting the tap weights of an FIR filter}
  - M G11B 20/10212 · · · · {compensation for data shift-(, e.g. pulse-crowding effects)}
- U G11B 2220/00** **Record carriers by type**
- U G11B 2220/20 · Disc-shaped record carriers
  - U G11B 2220/21 · · characterised in that the disc is of read-only, rewritable, or recordable type
  - M G11B 2220/211 · · · Discs having both read-only and rewritable or recordable areas containing application data; Partial ROM [PROM] media

**Project: RP0342-F (H01F)**

- U H01F 27/00** **Details of transformers or inductances, in general**
- U H01F 27/34 · Special means for preventing or reducing unwanted electric or magnetic effects, e.g. no-load losses, reactive currents, harmonics, oscillations, leakage fields
  - M H01F 27/36 · · Electric or magnetic shields or screens (movable for varying inductance [H01F 21/10](#))  
**WARNING**  
Group H01F 27/36 is impacted by reclassification into groups H01F 27/361, H01F 27/363 and H01F 27/366.  
All subgroups listed in this Warning should be considered in order to perform a complete search.
  - M H01F 27/361 · · · {made of combinations of electrically conductive material and ferromagnetic material}  
**WARNING**  
Group H01F 27/361 is incomplete pending reclassification of documents from group H01F 27/36.  
Groups H01F 27/36 and H01F 27/361 should be considered in order to perform a complete search.
  - M H01F 27/363 · · · {made of electrically conductive material}  
**WARNING**  
Group H01F 27/363 is incomplete pending reclassification of documents from group H01F 27/36.  
Groups H01F 27/36 and H01F 27/363 should be considered in order to perform a complete search.
  - M H01F 27/366 · · · {made of ferromagnetic material}  
**WARNING**  
Group H01F 27/366 is incomplete pending reclassification of documents from group H01F 27/36.  
Groups H01F 27/36 and H01F 27/366 should be considered in order to perform a complete search.

## Project: MP11664 (H01G)

- M H01G**                    **CAPACITORS; CAPACITORS, RECTIFIERS, DETECTORS, SWITCHING DEVICES OR LIGHT-SENSITIVE DEVICES, OF THE ELECTROLYTIC TYPE (selection of specified materials as dielectric [H01B 3/00](#); capacitors with potential-jump or surface barrier [H01L 29/00](#))**
- NOTE***  
*In this subclass, group [H01G 11/00](#) takes precedence over groups [H01G 4/00](#) and [H01G 9/00](#).*
- 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.
- M H01G 11/00**            **Hybrid capacitors, i.e. capacitors having different positive and negative electrodes; Electric double-layer [EDL] capacitors [**EDLCs**]; Processes **specially adapted** for the manufacture thereof or of parts thereof**
- NOTE**  
 Group [H01G 11/02](#) takes precedence over groups [H01G 11/04](#) - [H01G 11/14](#)
- WARNING**  
 Group [H01G 11/00](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
 Groups [H01G 9/155](#) and [H01G 11/00](#) should be considered in order to perform a complete search.
- U H01G 11/04**            • Hybrid capacitors
- WARNING**  
 Group [H01G 11/04](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
 Groups [H01G 9/155](#) and [H01G 11/04](#) should be considered in order to perform a complete search.
- M H01G 11/06**            • • with one of the electrodes allowing ions **or anions** to be reversibly doped thereinto, e.g. lithium-ion capacitors [LICs]
- WARNING**  
 Group [H01G 11/06](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
 Groups [H01G 9/155](#) and [H01G 11/06](#) should be considered in order to perform a complete search.
- M H01G 11/10**            • Multiple hybrid or EDL capacitors, e.g. arrays or modules ( housings, cases, **encapsulations** or mountings thereof [H01G 11/78](#))
- WARNING**  
 Group [H01G 11/10](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
 Groups [H01G 9/155](#) and [H01G 11/10](#) should be considered in order to perform a complete search.
- U H01G 11/22**            • Electrodes
- WARNING**  
 Group [H01G 11/22](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
 Groups [H01G 9/155](#) and [H01G 11/22](#) should be considered in order to perform a complete search.

- M H01G 11/24
- characterised by structural features, ~~e.g. forms, shapes, surface areas, porosities or dimensions~~, of the materials making up or comprised in the electrodes, *e.g. form, surface area or porosity*; characterised by the structural features of powders or particles used therefor
- WARNING  
Group [H01G 11/24](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/24](#) should be considered in order to perform a complete search.
- M H01G 11/26
- characterised by ~~the structures of the electrodes~~ *their structure*, e.g. multi-layered, ~~shapes, dimensions, porosities~~ *porosity* or surface features
- WARNING  
Groups [H01G 11/26](#) – [H01G 11/28](#) are incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/26](#) – [H01G 11/28](#) should be considered in order to perform a complete search.
- M H01G 11/30
- characterised by their ~~materials~~ *material*
- WARNING  
Group [H01G 11/30](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/30](#) should be considered in order to perform a complete search.
- M H01G 11/32
- Carbon-based, ~~e.g. activated carbon materials~~
- WARNING  
Groups [H01G 11/32](#) – [H01G 11/44](#) are incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/32](#) – [H01G 11/44](#) should be considered in order to perform a complete search.
- M H01G 11/46
- Metal oxides, ~~e.g. ruthenium oxide~~
- WARNING  
Group [H01G 11/46](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/46](#) should be considered in order to perform a complete search.
- U H01G 11/66
- Current collectors
- WARNING  
Group [H01G 11/66](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/66](#) should be considered in order to perform a complete search.
- M H01G 11/68
- characterised by their ~~materials~~ *material*
- WARNING  
Group [H01G 11/68](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/68](#) should be considered in order to perform a complete search.

- M H01G 11/70
- characterised by their ~~structures~~structure
- WARNING  
Group [H01G 11/70](#) is incomplete pending reclassification of documents from group [H01G 9/155](#).  
Groups [H01G 9/155](#) and [H01G 11/70](#) should be considered in order to perform a complete search.
- M H01G 15/00
- Structural combinations of capacitors or other devices covered by at least two different main groups of this subclass with each other (involving at least one hybrid or electric double-layer [EDL] capacitor as *the* main component [H01G 11/08](#))**

## Project: MP10325 (H01J)

- U H01J 1/00
- Details of electrodes, of magnetic control means, of screens, or of the mounting or spacing thereof, common to two or more basic types of discharge tubes or lamps (details of electron-optical arrangements or of ion traps [H01J 3/00](#))**
- M H01J 1/53
- Electrodes intimately associated with a screen on or from which an image or pattern is formed, picked-up, converted, or stored ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/54
- Screens on or from which an image or pattern is formed, picked-up, converted, or stored; Luminescent coatings on vessels ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/56
- acting as light valves by shutter operation, e.g. for eidophor ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/58
- acting by discolouration, e.g. halide screen ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/60
- Incandescent screens ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/62
- Luminescent screens; Selection of materials for luminescent coatings on vessels ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/64
- characterised by the binder or adhesive for securing the luminescent material to its ~~supports~~support ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/68
- with superimposed luminescent layers ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/70
- with protective, conductive, or reflective layers ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/72
- with luminescent material discontinuously arranged, e.g. in dots or lines ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/74
- with adjacent dots or lines of different luminescent material ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/76
- provided with permanent marks or references ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- M H01J 1/78
- Photoelectric screens; Charge-storage screens ~~{{(see provisionally also H01J 29/08 - H01J 29/36)}}~~
- U H01J 3/00
- Details of electron-optical or ion-optical arrangements or of ion traps common to two or more basic types of discharge tubes or lamps**
- M H01J 3/02
- Electron guns ~~{{(electron guns for discharge tubes with provision for introducing objects or material to be exposed to the discharge H01J 37/06; for cathode ray tubes H01J 29/48)}}~~
- M H01J 3/04
- Ion guns ~~{{(see provisionally also H01J 27/00)}}~~

- M H01J 3/06
- two or more guns being arranged in a single vacuum space, e.g. for plural-ray tubes ([H01J 3/07](#) takes precedence ~~{see provisionally also H01J 29/46 - H01J 29/84}~~)
- M H01J 3/07
- Arrangements for controlling convergence of a plurality of beams ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/08
- Arrangements for controlling intensity of ray or beam ([H01J 3/02](#), [H01J 3/04](#) take precedence ~~{see provisionally also H01J 29/46 - H01J 29/84}~~)
- M H01J 3/10
- Arrangements for centering/centring ray or beam ([H01J 3/02](#), [H01J 3/04](#) take precedence ~~{see provisionally also H01J 29/46 - H01J 29/84}~~)
- M H01J 3/12
- Arrangements for controlling cross-section of ray or beam; Arrangements for correcting aberration of beam, e.g. due to lenses ([H01J 3/02](#), [H01J 3/04](#) take precedence ~~{see provisionally also H01J 29/46 - H01J 29/84}~~)
- M H01J 3/14
- Arrangements for focusing or reflecting ray or beam ([H01J 3/02](#), [H01J 3/04](#) take precedence ~~{see provisionally also H01J 29/46 - H01J 29/84}~~)
- M H01J 3/16
- • Mirrors ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/18
- • Electrostatic lenses ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/20
- • Magnetic lenses ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/22
- • • using electromagnetic means only ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/24
- • • using permanent magnets only ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/26
- Arrangements for deflecting ray or beam ~~{(H01J 29/46 - H01J 29/84 and H01J 37/147 take precedence)}~~
- M H01J 3/28
- • along one straight line or along two perpendicular straight lines ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/30
- • • by electric fields only ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/32
- • • by magnetic fields only ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/34
- • along a circle, spiral, or rotating radial line ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/36
- Arrangements for controlling the ray or beam after passing the main deflection system, e.g. for post-acceleration or post-concentration ~~{see provisionally also H01J 29/46 - H01J 29/84}~~
- M H01J 3/38
- Mounting, supporting, spacing, or insulating electron-optical or ion-optical arrangements ~~{see provisionally also H01J 29/46 - H01J 29/84}~~

**Project: RP10473 (H01J)**

- D H01J 3/381
- • {Dispersed generators}
  - <administratively transferred to [H02J 3/381](#)>
- D H01J 3/383
- • • {the generators exploiting regenerative energy}
  - <administratively transferred to [H02J 3/381](#)>
- D H01J 3/385
- • • • {Solar energy (generation of electric power by conversion of light H02S)}
  - <administratively transferred to [H02J 3/381](#)>
- D H01J 3/386
- • • • {Wind energy (wind motors F03D)}
  - <administratively transferred to [H02J 3/381](#)>
- D H01J 3/388
- • • {using fuel cells (fuel cells per se H01M 8/00)}
  - <administratively transferred to [H02J 3/381](#)>

**Project: MP10325 (H01J)**

- U H01J 9/00 Apparatus or processes specially adapted for the manufacture {, installation, removal, maintenance} of electric discharge tubes, discharge lamps, or parts thereof; Recovery of material from discharge tubes or lamps**
- U H01J 9/02 · Manufacture of electrodes or electrode systems
  - U H01J 9/04 · · of thermionic cathodes
  - U H01J 9/042 · · · {Manufacture, activation of the emissive part}
  - M H01J 9/045 · · · · {Activation of assembled cathode ~~(regeneration H01J 9/505)}~~}
  - U H01J 9/24 · Manufacture or joining of vessels, leading-in conductors or bases
  - U H01J 9/32 · · Sealing leading-in conductors
  - M H01J 9/323 · · · {Sealing leading-in conductors into a discharge lamp or a gas-filled discharge device ~~(for incandescent lamps H01K 3/20, joining glass to metal G03C 27/00)}~~}
  - U H01J 9/50 · Repairing or regenerating used or defective discharge tubes or lamps
  - M H01J 9/505 · · {Regeneration of cathodes ~~(activation H01J 9/045)}~~}
- U H01J 29/00 Details of cathode-ray tubes or of electron-beam tubes of the types covered by group [H01J 31/00](#)**
- U H01J 29/02 · Electrodes; Screens; Mounting, supporting, spacing or insulating thereof
  - U H01J 29/10 · · Screens on or from which an image or pattern is formed, picked up, converted or stored
  - U H01J 29/18 · · · Luminescent screens
  - M H01J 29/20 · · · · characterised by the luminescent material ~~{{(for luminescent screens for X-ray purposes G21K 4/00)}~~}
  - U H01J 29/36 · · · Photoelectric screens; Charge-storage screens
  - U H01J 29/38 · · · · not using charge storage, e.g. photo-emissive screen, extended cathode ~~{{(electrodes using photo-emission in general H01J 1/34)}~~}
  - M H01J 29/385 · · · · · {Photocathodes comprising a layer which modified the wave length of impinging radiation ~~(luminescent layers sensitive to UV and X-rays G09K 11/00, G21K 4/00)}~~}
  - M H01J 29/39 · · · · Charge-storage screens ~~{{(H01J 29/395 takes precedence)}~~}
  - U H01J 29/46 · Arrangements of electrodes and associated parts for generating or controlling the ray or beam, e.g. electron-optical arrangement ~~{{(transit time tubes H01J 23/00, H01J 25/00; X-ray tubes H01J 35/00; beam tubes for examining ions, e.g. electron or ion microscopes, or processing of objects or materials, e.g. electron or ion beam tubes H01J 37/04; electron multipliers H01J 43/04; handling of radiation or particles, e.g. focusing, deviating, not otherwise provided for G21K 1/00)}~~}
- NOTE**  
[H01J 29/48](#) takes precedence over groups [H01J 29/52](#) - [H01J 29/58](#).
- M H01J 29/58 · · Arrangements for focusing or reflecting ray or beam ~~{{(H01J 29/467; H01J 29/585 take precedence)}~~}
  - U H01J 29/86 · Vessels; Containers; Vacuum locks
  - M H01J 29/865 · · {Vacuum locks ~~(for tubes for examining or processing of objects or materials, e.g. electron microscopes H01J 37/18)}~~}
- U H01J 31/00 Cathode ray tubes; Electron beam tubes ([H01J 25/00](#), [H01J 33/00](#), [H01J 35/00](#), [H01J 37/00](#) take precedence; details of cathode ray tubes or of electron beam tubes [H01J 29/00](#))**



- U H01J 31/08 · having a screen on or from which an image or pattern is formed, picked up, converted, or stored
- U H01J 31/26 · · Image pick-up tubes having an input of visible light and electric output (tubes without defined electron beams and having a light ray scanning photo-emissive screen [H01J 40/20](#))
- M H01J 31/28 · · · with electron ray scanning the image screen ~~{(H01J 31/283, H01J 31/286 take precedence)}~~
- U H01J 37/00** **Discharge tubes with provision for introducing objects or material to be exposed to the discharge, e.g. for the purpose of examination or processing thereof ([H01J 33/00](#), [H01J 40/00](#), [H01J 41/00](#), [H01J 47/00](#), [H01J 49/00](#) take precedence)**
- M H01J 37/32 · Gas-filled discharge tubes, ~~{e.g. for surface treatment of objects such as coating, plating, etching, sterilising or bringing about chemical reactions}~~ ~~{(general methods or devices for heat treatments of ferrous or non-ferrous metals or alloys by cathodic discharges C21D 1/38; methods of carburising or nitriding of metals in general C23C 8/00; methods for coating, plating or surface treating of or with metallic material C23C 8/36, C23C 14/32, C23C 16/50; methods for coating, plating or surface treating of or with semiconductors H01L 21/00; } heating by discharge [H05B](#))~~
- U H01J 37/32009 · · {Arrangements for generation of plasma specially adapted for examination or treatment of objects, e.g. plasma sources (plasma generation in general [H05H 1/24](#))}
- U H01J 37/32082 · · · {Radio frequency generated discharge ([H01J 37/32357](#), [H01J 37/32366](#), [H01J 37/32394](#) and [H01J 37/32403](#) take precedence)}
- U H01J 37/32174 · · · · {Circuits specially adapted for controlling the RF discharge}
- M H01J 37/32183 · · · · · {Matching circuits, ~~impedance matching circuits per se H03H 7/38 and H03H 7/40~~}
- U H01J 43/00** **Secondary-emission tubes; Electron-multiplier tubes (dynamic electron-multiplier tubes [H01J 25/76](#))**
- U H01J 43/04 · Electron multipliers {(if forming part of electron gun [H01J 3/023](#))}
- U H01J 43/06 · · Electrode arrangements
- M H01J 43/08 · · · Cathode arrangements (~~photo-emissive electrodes H01J 1/34, H01J 1/35~~); construction of photo cathodes [H01J 40/06](#), [H01J 40/16](#), [H01J 47/00](#), [H01J 49/08](#))
- M H01J 43/28 · · Vessels {, e.g. wall of the tube}; Windows; Screens; Suppressing undesired discharges or currents
- U H01J 49/00** **Particle spectrometers or separator tubes**
- NOTE  
In classifying particle separators, no distinction is made between spectrometry and spectrography, the difference being only in the manner of detection which in the first case is electrical and in the second case is by means of a photographic film.
- U H01J 49/02 · Details
- U H01J 49/04 · · Arrangements for introducing or extracting samples to be analysed, e.g. vacuum locks; Arrangements for external adjustment of electron- or ion-optical components
- U H01J 49/0409 · · · {Sample holders or containers (containers for retaining a material to be analyzed, [B01L 3/50](#), for DNA, [C12Q 1/6834](#), for biological materials, [G01N 33/543](#))}

- M H01J 49/0418 . . . {for laser desorption, e.g. matrix-assisted laser desorption/ionisation [MALDI]; *plates or* surface enhanced laser desorption/ionisation [SELDI] plates}
- U H01J 49/26 . Mass spectrometers or separator tubes
- U H01J 49/28 . Static spectrometers
- U H01J 49/284 . . {using electrostatic and magnetic sectors with simple focusing, e.g. with parallel fields such as Aston spectrometer}
- M H01J 49/286 . . . {with energy analysis, e.g. Castaing filter (in cathode-ray or electron-beam tubes [H01J 29/84](#); ~~electron- or ion-optical arrangements for separating electrons or ions from an analysing or processing beam H01J 37/05~~; *electron- or ion-optical arrangements for separating electrons or ions from an analysing or processing beam H01J 37/05*; micro- or spot-analysing tubes [H01J 37/252](#))}
- U H01J 49/34 . Dynamic spectrometers
- U H01J 49/36 . . Radio frequency spectrometers, e.g. Bennett-type spectrometers, Redhead-type spectrometers
- M H01J 49/38 . . . *Omegatrons* {; ~~Omegatrons (Using using~~ ion cyclotron resonance)}
- U H01J 49/40 . . Time-of-flight spectrometers ([H01J 49/36](#) takes precedence)
- M H01J 49/406 . . . {with multiple reflections (~~electrostatic traps H01J 49/4245~~)}
- U H01J 49/42 . . Stability-of-path spectrometers, e.g. monopole, quadrupole, multipole, farvitrons
- U H01J 49/4205 . . . {Device types}
- M H01J 49/4245 . . . . {Electrostatic ion traps ([H01J 49/422](#) takes precedence; ~~multi-reflection time of flight spectrometers H01J 49/406~~)}
- U H01J 49/426 . . . . {Methods for controlling ions}
- M H01J 49/4265 . . . . {Controlling the number of trapped ions; ~~preventing space charge effects~~; *preventing space charge effects*}
- M H01J 2211/00 Plasma display panels with alternate current induction of the discharge, e.g. AC-PDPs (~~plasma display panels making use of direct current H01J 2217/00~~)**
- M H01J 2217/00 Gas-filled discharge tubes (~~H01J 2211/00 takes precedence~~)**
- U H01J 2217/38 . Cold-cathode tubes
- U H01J 2217/49 . . Display panels, e.g. not making use of alternating current ([H01J 2211/10](#) takes precedence)
- U H01J 2217/492 . . Details
- M H01J 2217/49285 . . . . Associated optical means (~~combined with electromagnetic screens H01J 2217/49292~~)

**Project: RP10464 (H01L)**

- U H01L 21/00 Processes or apparatus adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof**
- U H01L 21/02 . Manufacture or treatment of semiconductor devices or of parts thereof
- U H01L 21/02104 . . {Forming layers (deposition in general [C23C](#); crystal growth in general [C30B](#))}
- WARNING  
Groups [H01L 21/02104](#) – [H01L 21/02694](#) are incomplete pending reclassification of documents from groups [H01L 21/06](#), [H01L 21/16](#), and [H01L 21/20](#).

Groups [H01L 21/02104](#) – [H01L 21/02694](#), [H01L 21/06](#), [H01L 21/20](#), and [H01L 21/16](#) should be considered in order to perform a complete search.

M H01L 21/02365

- • • {Forming inorganic semiconducting materials on a substrate (for light-sensitive devices [H01L 31/00](#))}

**WARNING**

1. Group [H01L 21/02365](#) is incomplete pending reclassification of documents from groups [H01L 21/06](#), [H01L 21/16](#), and [H01L 21/20](#). Groups [H01L 21/06](#), [H01L 21/16](#), and [H01L 21/20](#) should be considered in order to perform a complete search.

2. Groups [H01L 21/02365](#) - [H01L 21/02694](#) are incomplete pending reclassification of documents from groups [H01L 21/2018](#), [H01L 21/2022](#), [H01L 21/2026](#), [H01L 21/203](#), [H01L 21/2033](#), [H01L 21/2036](#), [H01L 21/205](#), [H01L 21/2053](#), [H01L 21/2056](#), [H01L 21/208](#) and [H01L 21/2085](#). All groups listed in this Warning should be considered in order to perform a complete search.

U H01L 21/04

- • the devices having at least one potential-jump barrier or surface barrier, e.g. PN junction, depletion layer or carrier concentration layer {(multistep manufacturing processes for semiconductor bodies of said devices [H01L 29/02](#); multistep manufacturing processes for electrodes of said devices [H01L 29/401](#); multistep manufacturing processes for said devices [H01L 29/66007](#))}

U H01L 21/18

- • • the devices having semiconductor bodies comprising elements of Group IV of the Periodic System or  $A_{III}B_V$  compounds with or without impurities, e.g. doping materials {([H01L 21/041](#) - [H01L 21/0425](#), [H01L 21/045](#) - [H01L 21/048](#) take precedence)}

**NOTE**

This group covers also processes and apparatus which, by using the appropriate technology, are clearly suitable for manufacture or treatment of devices whose bodies comprise elements of Group IV of the Periodic System or  $A_{III}B_V$  compounds, even if the material used is not explicitly specified.

U H01L 21/20

- • • Deposition of semiconductor materials on a substrate, e.g. epitaxial growth {solid phase epitaxy}

**WARNING**

Group [H01L 21/20](#) is impacted by reclassification into groups [H01L 21/02365](#) – [H01L 21/02694](#).

Groups [H01L 21/20](#) and [H01L 21/02365](#) – [H01L 21/02694](#) should be considered in order to perform a complete search.

M H01L 21/2003

- • • • {~~Characterised~~*characterised* by the substrate (~~H01L 21/203~~, ~~H01L 21/205~~, ~~H01L 21/208~~ take precedence)}

F H01L 21/2018  
(Frozen)

- • • • {Selective epilaxial growth, e.g. simultaneous deposition of mono - and non-mono semiconductor materials}

**WARNING**

Group [H01L 21/2018](#) is no longer used for the classification of documents as of August 1, 2022.

The content of this group is being reclassified into groups [H01L 21/02365](#) - [H01L 21/02694](#).

Groups [H01L 21/2018](#) and [H01L 21/02365](#) - [H01L 21/02694](#) should be considered in order to perform a complete search.

- F H01L 21/2022  
(Frozen)
- • • • {Epitaxial regrowth of non-monocrystalline semiconductor materials, e.g. lateral epitaxy by seeded solidification, solid-state crystallization, solid-state graphoepitaxy, explosive crystallization, grain growth in polycrystalline materials}
- WARNING  
Group H01L 21/2022 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.  
Groups H01L 21/2022 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.
- F H01L 21/2026  
(Frozen)
- • • • • {using a coherent energy beam, e.g. laser or electron beam}
- WARNING  
Group H01L 21/2026 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.  
Groups H01L 21/2026 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.
- F H01L 21/203  
(Frozen)
- • • • • using physical deposition, e.g. vacuum deposition, sputtering
- WARNING  
Group H01L 21/203 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.  
Groups H01L 21/203 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.
- F H01L 21/2033  
(Frozen)
- • • • • {Epitaxial deposition of elements of Group IV of the Periodic System, e.g. Si, Ge}
- WARNING  
Group H01L 21/2033 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.  
Groups H01L 21/2033 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.
- F H01L 21/2036  
(Frozen)
- • • • • {Epitaxial deposition of AIII BV compounds}
- WARNING  
Group H01L 21/2036 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.  
Groups H01L 21/2036 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.
- F H01L 21/205  
(Frozen)
- • • • • using reduction or decomposition of a gaseous compound yielding a solid condensate, i.e. chemical deposition
- WARNING  
Group H01L 21/205 is no longer used for the classification of documents as of August 1, 2022.  
The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.

*Groups H01L 21/205 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.*

- F H01L 21/2053 (Frozen) . . . . . {Epitaxial deposition of elements of Group IV of the Periodic System, e.g. Si, Ge}

**WARNING**

*Group H01L 21/2053 is no longer used for the classification of documents as of August 1, 2022.*

*The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.*

*Groups H01L 21/2053 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.*

- F H01L 21/2056 (Frozen) . . . . . {Epitaxial deposition of A<sub>III</sub>B<sub>V</sub> compounds}

**WARNING**

*Group H01L 21/2056 is no longer used for the classification of documents as of August 1, 2022.*

*The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.*

*Groups H01L 21/2056 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.*

- F H01L 21/208 (Frozen) . . . . . using liquid deposition

**WARNING**

*Group H01L 21/208 is no longer used for the classification of documents as of August 1, 2022.*

*The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.*

*Groups H01L 21/208 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.*

- F H01L 21/2085 (Frozen) . . . . . {Epitaxial deposition of A<sub>III</sub>B<sub>V</sub> compounds}

**WARNING**

*Group H01L 21/2085 is no longer used for the classification of documents as of August 1, 2022.*

*The content of this group is being reclassified into groups H01L 21/02365 - H01L 21/02694.*

*Groups H01L 21/2085 and H01L 21/02365 - H01L 21/02694 should be considered in order to perform a complete search.*

**Project: N/A (H02B)**

H02B 1/00

**Frameworks, boards, panels, desks, casings; Details of substations or switching arrangements**

NOTE

In groups [H02B 1/01](#) to [H02B 1/56](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

**Project: RP10455 (H02B)**

U H02B 15/00

**Supervisory desks or panels for centralised control or display (desks in general [A47B](#))**

U H02B 15/02

- with mimic diagrams

U H02B 15/04

- consisting of building blocks

**N H02B 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10455 (H02H)**

**U H02H 11/00** **Emergency protective circuit arrangements for preventing the switching-on in case an undesired electric working condition might result**

U H02H 11/008 · {preventing unsafe switching operations in substations (Schaltfehlerschutz)}

**N H02H 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10455 (H03F)**

**U H03F 19/00** **Amplifiers using superconductivity effects**

**D H03F 21/00** ~~{Amplifiers not covered by groups H03F 3/00 – H03F 19/00 (dynamo-electric amplifiers H02K)}~~

<administratively transferred to [H03F 99/00](#)>

**N H03F 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10455 (H04J)**

**U H04J 14/00** **Optical multiplex systems (optical coupling, mixing or splitting, per se G02B)**

U H04J 14/08 · Time-division multiplex systems

U H04J 14/086 · · {Medium access ([H04J 3/16](#) takes precedence)}

**D H04J 15/00** ~~{Multiplex systems not otherwise provided for}~~

<administratively transferred to [H04J 99/00](#)>

**N H04J 99/00** *Subject matter not provided for in other groups of this subclass*

**Project: RP10477 (H04L)**

**U H04L 9/00** **{Cryptographic mechanisms or cryptographic} arrangements for secret or secure communications; Network security protocols**

NOTES

1. This group covers:

1.1 Cryptographic mechanisms including cryptographic protocols and cryptographic algorithms, whereby a cryptographic protocol is a distributed cryptographic algorithm defined by a sequence of steps precisely specifying the actions required of two or more entities to achieve specific security objectives (e.g. cryptographic protocol for key agreement), and whereby a cryptographic algorithm is specifying the steps followed by a single entity to achieve specific security objectives (e.g. cryptographic algorithm for symmetric key encryption).

1.2 [H04L 9/00](#) focuses on cryptographic mechanisms such as encryption schemes, digital signatures, hash functions, random number generation, key management, said cryptographic mechanisms providing information security such as privacy or confidentiality, data integrity, message authentication, entity authentication, authorization, validation, certification, time-stamping, anonymity, revocation, non-repudiation.

1.3 [H04L 9/00](#) covers also countermeasures against attacks on cryptographic mechanisms.

2. This group does not cover:

2.1 Networking architectures or network communication protocols for securing the traffic flowing through data packet networks and providing secure exchanges among applications communicating through data packet



- networks, which are covered by [H04L 63/00](#). Attention is drawn to the Note
1. after group [H04L 63/00](#)
  - 2.2 Security arrangements for protecting computers or computer systems against unauthorised activity, which are covered by [G06F 21/00](#)
  3. In subgroups [H04L 9/001](#) - [H04L 9/38](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

- M H04L 9/14
- using a plurality of keys or algorithms ~~{(network architectures or network communication protocols wherein the sending and receiving network entities apply hybrid encryption, i.e. combination of symmetric and asymmetric encryption H04L 63/045)}~~
- M H04L 9/32
- including means for verifying the identity or authority of a user of the system {or for message authentication, e.g. authorization, entity authentication, data integrity or data verification, non-repudiation, key authentication or verification of credentials} ~~{(network architectures or network communication protocols for supporting entities authentication in a packet data network H04L 63/08; applying verification of the received information H04L 63/12; } computer systems G06F; coin-freed or like apparatus with coded identity card or credit card G07F 7/08)}~~

#### Project: N/A (H04L)

- U H04L 41/00 **Arrangements for maintenance, administration or management of data switching networks, e.g. of packet switching networks**

##### WARNING

Group [H04L 41/00](#) is impacted by reclassification into groups [H04L 41/34](#), [H04L 41/342](#), [H04L 41/344](#) and [H04L 41/40](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- H04L 41/50
- Network service management, e.g. ensuring ~~proper service~~ *proper service* fulfilment according to agreements

#### Project: RP0142-F (H04N)

- U H04N 21/00 **Selective content distribution, e.g. interactive television or video on demand [VOD] (real-time bi-directional transmission of motion video data [H04N 7/14](#) {; broadcast or conference over packet switching networks [H04L 12/18](#)})**

##### NOTES

1. This group covers :

- interactive video distribution processes, systems, or elements thereof, which are characterised by point-to-multipoint system configurations, and which are mainly used for motion video data unidirectional distribution or delivery resulting from interactions between systems operators, e.g. access or service providers, or users e.g. subscribers, and system elements.
- such systems include dedicated communication systems, such as television distribution systems, which primarily distribute or deliver motion video data in the manner indicated, which may, in addition, provide a framework for further, diverse data communications or services in either unidirectional or bi-directional form. However, video will occupy most of the downlink bandwidth in the distribution process.
- typically, system operators interface with transmitter-side elements or users' interface with receiver-side elements in order to facilitate, through interaction with such elements, the dynamic control of data processing or data flow at various points in the system. This interaction is typically occasional or intermittent in nature.



- processes, systems or elements thereof specially adapted to the generation, distribution and processing of data, which is either associated with video content, e.g. metadata, ratings, or related to the user or his environment and which has been actively or passively gathered. This data is either used to facilitate interaction or to alter or target the content.
2. In this main group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.
  3. In this main group, the following terms and expressions are used with the meaning indicated:

additional data - designates still pictures, textual, graphical or executable data such as software. It is used to convey supplemental information and can be generated prior to or during the distribution process itself, e.g. metadata, keys.

content designates video or audio streams, which may be combined with additional data. Video data will always be present and occupy most of the downlink bandwidth in the distribution process

server - designates an apparatus designed for adapting the content received from the content provider to the distribution network. It also manages the distribution to client devices or intermediate components over a network. Further servers may also be present for gathering or generating additional data, e.g. rights management server

additional data server - designates a server, which sole purpose is the distribution or management of additional data. It is not in charge of the distribution of video or audio data

client - designates an apparatus such as a TV receiver, a set-top-box, a PC-TV, a mobile appliance (e.g. mobile phone or receiver in a vehicle), for receiving video, audio and possibly additional data from one or several servers or intermediate components via a network for further processing, storing or displaying. It can also transmit this data on a home-based local network to further devices, e.g. a home server transmitting video to PCs and set-top-boxes within a home.

local network - pertains to a restricted area, e.g. a home or a vehicle, and designates the link between a client and its peripheral devices

network - is to be distinguished from "local network": "network" designates the link between the server and the clients, or between the server and the intermediate components, or between the intermediate components and the clients, or between remotely located clients

distribution - encompasses broadcasting, multicasting and unicasting techniques for transmitting content from one or more sources to one or more receiving stations. The distribution follows a request by a receiving station to the source, e.g. VOD or from a customization of the content by the source, e.g. targeting advertisements to a demographic group in a unidirectional or bidirectional system. Additionally, distribution encompasses techniques where the client acts as a source and another client acts as a receiving station, e.g. a peer-to-peer system for sharing video among client devices

end-user - designates a physical person, e.g. a TV viewer, who consumes the content using the client device. He is the final recipient of the content distributed by the server

interaction - covers actions occurring between or among two or more objects that have an effect upon one another, wherein objects comprise users, system operators, system elements, or content. The user may interact with content locally at the client device, e.g. for requesting additional data stored within the client device. The user may interact with content remotely through a server e.g. for VOD playback control or for uploading video to a server. The client device may interact with the content e.g. selecting content based upon the user profile. The client device may interact with a server using a return channel, e.g. for authenticating client or

uploading client hardware capabilities. The server may interact with a client device, e.g. to force a client to tune to an advertisement channel  
upstream - designates the direction of data flow towards the source, e.g. a server receiving a request via a mobile phone network.  
downstream - designates the direction of data flow towards a client, e.g. a client receiving data originating from a server elementary stream  
An elementary stream (ES) as defined by the MPEG system layer designates the output of an audio or video encoder.

- U H04N 21/40
  - Client devices specifically adapted for the reception of or interaction with content, e.g. set-top-box [STB]; Operations thereof
- U H04N 21/41
  - • Structure of client; Structure of client peripherals
- M H04N 21/4104
  - • • {Peripherals receiving signals from specially adapted client devices}
  - WARNING**  
Group H04N 21/4104 is impacted by reclassification into groups H04N 21/411 and H04N 21/4112.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M H04N 21/411
  - • • {having similar hardware or software capabilities as the client device itself, e.g. a first STB connected to a second STB}
  - WARNING**  
Group H04N 21/411 is incomplete pending reclassification of documents from group H04N 21/4104.  
Groups H04N 21/4104 and H04N 21/411 should be considered in order to perform a complete search.
- M H04N 21/4112
  - • • {having fewer capabilities than the client, e.g. thin client having less processing power or no tuning capabilities}
  - WARNING**  
Group H04N 21/4112 is incomplete pending reclassification of documents from group H04N 21/4104.  
Groups H04N 21/4104 and H04N 21/4112 should be considered in order to perform a complete search.
- M H04N 21/4126
  - • • {The peripheral being portable, e.g. PDAs or mobile phones}
  - WARNING**  
Group H04N 21/4126 is impacted by reclassification into group H04N 21/41265.  
Groups H04N 21/4126 and H04N 21/41265 should be considered in order to perform a complete search.
- M H04N 21/41265
  - • • • {having a remote control device for bidirectional communication between the remote control device and client device (unidirectional remote control device [H04N 21/42204](#))}
  - WARNING**  
Group H04N 21/41265 is incomplete pending reclassification of documents from group H04N 21/4126.  
Groups H04N 21/4126 and H04N 21/41265 should be considered in order to perform a complete search.
- U H04N 21/43
  - • Processing of content or additional data, e.g. demultiplexing additional data from a digital video stream; Elementary client operations, e.g. monitoring of home network or synchronising decoder's clock; Client middleware {(real-time communication protocols in data switching networks [H04L 65/00](#))}

- U H04N 21/4302 . . . {Content synchronisation processes, e.g. decoder synchronisation}
- M H04N 21/4307 . . . . {Synchronising the rendering of multiple content streams or additional data on devices, e.g. synchronisation of audio on a mobile phone with the video output on the TV screen}
- WARNING**  
Group H04N 21/4307 is impacted by reclassification into groups H04N 21/43072, H04N 21/43074, H04N 21/43076, H04N 21/43078 and H04N 21/43079.  
All groups listed in this Warning should be considered in order to perform a complete search.
- M H04N 21/43072 . . . . {of multiple content streams on the same device}
- WARNING**  
Group H04N 21/43072 is incomplete pending reclassification of documents from group H04N 21/4307.  
Groups H04N 21/4307 and H04N 21/43072 should be considered in order to perform a complete search.
- M H04N 21/43074 . . . . {of additional data with content streams on the same device, e.g. of EPG data or interactive icon with a TV program}
- WARNING**  
Group H04N 21/43074 is incomplete pending reclassification of documents from group H04N 21/4307.  
Groups H04N 21/4307 and H04N 21/43074 should be considered in order to perform a complete search.
- M H04N 21/43076 . . . . {of the same content streams on multiple devices, e.g. when family members are watching the same movie on different devices}
- WARNING**  
Group H04N 21/43076 is incomplete pending reclassification of documents from group H04N 21/4307.  
Groups H04N 21/4307 and H04N 21/43076 should be considered in order to perform a complete search.
- M H04N 21/43078 . . . . {for seamlessly watching content streams when changing device, e.g. when watching the same program sequentially on a TV and then on a tablet}
- WARNING**  
Group H04N 21/43078 is incomplete pending reclassification of documents from group H04N 21/4307.  
Groups H04N 21/4307 and H04N 21/43078 should be considered in order to perform a complete search.
- M H04N 21/43079 . . . . {of additional data with content streams on multiple devices}
- WARNING**  
Group H04N 21/43079 is incomplete pending reclassification of documents from group H04N 21/4307.  
Groups H04N 21/4307 and H04N 21/43079 should be considered in order to perform a complete search.

- U H04N 21/442
- • • Monitoring of processes or resources, e.g. detecting the failure of a recording device, monitoring the downstream bandwidth, the number of times a movie has been viewed, the storage space available from the internal hard disk {(arrangements for monitoring broadcast services or broadcast-related services [H04H 60/29](#); arrangements for identifying or recognising characteristics with a direct linkage to broadcast information [H04H 60/35](#); monitoring of user activities for profile generation for accessing a video database [G06F 16/739](#); monitoring in wireless networks [H04W 24/00](#))}
- U H04N 21/44213
- • • • {Monitoring of end-user related data (arrangements for monitoring the users' behaviour or opinions in broadcast systems [H04H 60/33](#))}
- M H04N 21/44222
- • • • • {Analytics of user selections, e.g. selection of programs or purchase activity (monitoring of user selections in data processing systems [G06F 11/34](#); arrangements for monitoring the user's behaviour or opinions in broadcast systems [H04H 60/33](#))}
- WARNING**  
Group H04N 21/44222 is impacted by reclassification into groups H04N 21/44224 and H04N 21/44226.  
Groups H04N 21/44222, H04N 21/44224 and H04N 21/44226 should be considered in order to perform a complete search.
- M H04N 21/44224
- • • • • • {Monitoring of user activity on external systems, e.g. Internet browsing}
- WARNING**  
Group H04N 21/44224 is incomplete pending reclassification of documents from group H04N 21/44222.  
Groups H04N 21/44222 and H04N 21/44224 should be considered in order to perform a complete search.
- M H04N 21/44226
- • • • • • • {on social networks}
- WARNING**  
Group H04N 21/44226 is incomplete pending reclassification of documents from group H04N 21/44222.  
Groups H04N 21/44222 and H04N 21/44226 should be considered in order to perform a complete search.
- U H04N 21/45
- • Management operations performed by the client for facilitating the reception of or the interaction with the content or administrating data related to the end-user or to the client device itself, e.g. learning user preferences for recommending movies, resolving scheduling conflicts
- M H04N 21/4508
- • • {Management of client data or end-user data}
- WARNING**  
Group H04N 21/4508 is impacted by reclassification into group H04N 21/4518.  
Groups H04N 21/4508 and H04N 21/4518 should be considered in order to perform a complete search.
- M H04N 21/4518
- • • • {involving characteristics of one or more peripherals, e.g. peripheral type, software version, amount of memory available or display capabilities}
- WARNING**  
Group H04N 21/4518 is incomplete pending reclassification of documents from group H04N 21/4508.  
Groups H04N 21/4508 and H04N 21/4518 should be considered in order to perform a complete search.

**Project: RP0704-F (H04W)**

- U H04W 12/00      **Security arrangements; Authentication; Protecting privacy or anonymity**
- M H04W 12/30      • Security of mobile devices; Security of mobile applications
- WARNING  
Group H04W 12/30 is impacted by reclassification into group H04W 12/33. Groups H04W 12/30 and H04W 12/33 should be considered in order to perform a complete search.
- M H04W 12/33      • • using wearable devices, e.g. using a smartwatch or smart-glasses
- WARNING  
Group H04W 12/33 is incomplete pending reclassification of documents from group H04W 12/30. Groups H04W 12/30 and H04W 12/33 should be considered in order to perform a complete search.
- U H04W 12/60      • Context-dependent security
- M H04W 12/63      • • Location-dependent; Proximity-dependent
- WARNING  
Group H04W 12/63 is impacted by reclassification into group H04W 12/64. Groups H04W 12/63 and H04W 12/64 should be considered in order to perform a complete search.
- M H04W 12/64      • • • using geofenced areas
- WARNING  
Group H04W 12/64 is incomplete pending reclassification of documents from group H04W 12/63. Groups H04W 12/63 and H04W 12/64 should be considered in order to perform a complete search.

**Project: RP10455 (H05C)**

- M H05C 3/00      **Other circuits *or apparatus***

**Project: RP10454 (H05K)**

- U H05K 5/00      **Casings, cabinets or drawers for electric apparatus**
- C H05K 5/0017      • {with ~~display or control~~ *operator interface* units}
- WARNING  
Group H05K 5/0017 is impacted by reclassification into group H05K 5/0018. Groups H05K 5/0017 and H05K 5/0018 should be considered in order to perform a complete search.
- N H05K 5/0018      • • {having an electronic display}
- WARNING  
Group H05K 5/0018 is incomplete pending reclassification of documents from group H05K 5/0017. Groups H05K 5/0017 and H05K 5/0018 should be considered in order to perform a complete search.
- C H05K 5/02      • Details
- WARNING  
Group H05K 5/02 is impacted by reclassification into groups H05K 5/0209, H05K 5/021, H05K 5/0211, H05K 5/0212, H05K 5/0214, H05K 5/0215 and H05K 5/0216.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H05K 5/0204
- {Mounting supporting ~~structure~~structures on the outside of casings (~~mounting supporting structure in casings H05K 7/14~~)}
- U H05K 5/0208
- {Interlock mechanisms; Means for avoiding unauthorised use or function, e.g. tamperproof}
- N H05K 5/0209
- {Thermal insulation, e.g. for fire protection or for fire containment or for high temperature environments}
- WARNING  
Groups [H05K 5/0209](#) - [H05K 5/0211](#) are incomplete pending reclassification of documents from groups [H05K 5/02](#) and [H05K 5/0213](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N H05K 5/021
- • {specially adapted for data recorders, e.g. for flight recorders}
- N H05K 5/0211
- • {Thermal buffers, e.g. latent heat absorbers}
- N H05K 5/0212
- • {Condensation eliminators}
- WARNING  
Group [H05K 5/0212](#) is incomplete pending reclassification of documents from groups [H05K 5/02](#) and [H05K 5/0213](#).  
Groups [H05K 5/02](#), [H05K 5/0213](#) and [H05K 5/0212](#) should be considered in order to perform a complete search.
- C H05K 5/0213
- • {~~Thermal insulation~~Venting apertures; ~~Venting means~~; ~~Condensation eliminators~~Constructional details thereof}
- WARNING  
Group [H05K 5/0213](#) is impacted by reclassification into groups [H05K 5/0209](#), [H05K 5/021](#), [H05K 5/0211](#), [H05K 5/0212](#), [H05K 5/0214](#), [H05K 5/0215](#) and [H05K 5/0216](#).  
All groups listed in this Warning should be considered in order to perform a complete search.
- N H05K 5/0214
- • • {with means preventing penetration of rain water or dust (semi-permeable membranes [H05K 5/0215](#), [H05K 5/0216](#))}
- WARNING  
Group [H05K 5/0214](#) is incomplete pending reclassification of documents from groups [H05K 5/02](#) and [H05K 5/0213](#).  
Groups [H05K 5/02](#), [H05K 5/0213](#) and [H05K 5/0214](#) should be considered in order to perform a complete search.
- N H05K 5/0215
- • • {with semi-permeable membranes attached to casings}
- WARNING  
Group [H05K 5/0215](#) is incomplete pending reclassification of documents from groups [H05K 5/02](#) and [H05K 5/0213](#).  
Groups [H05K 5/02](#), [H05K 5/0213](#) and [H05K 5/0215](#) should be considered in order to perform a complete search.
- N H05K 5/0216
- • • {Venting plugs comprising semi-permeable membranes}
- WARNING  
Group [H05K 5/0216](#) is incomplete pending reclassification of documents from groups [H05K 5/02](#) and [H05K 5/0213](#).  
Groups [H05K 5/02](#), [H05K 5/0213](#) and [H05K 5/0216](#) should be considered in order to perform a complete search.

- M H05K 5/0217
- • {Mechanical details of casings (~~G06F 1/1613, H01M 50/20, H04M 1/0202~~ ~~take precedence~~ covers, lids, hoods or members for covering apertures [H05K 5/03](#))}
- M H05K 5/0226
- • • {Hinges (~~H02B 1/38 takes precedence~~)}
- D H05K 5/0239
- • • {Lids; Hoods, e.g. members for covering aperture}
- <administratively transferred to [H05K 5/03](#)>
- U H05K 5/03
- • Covers
- U H05K 7/00**
- Constructional details common to different types of electric apparatus (casings, cabinets, drawers [H05K 5/00](#))**
- U H05K 7/14
- Mounting supporting structure in casing or on frame or rack
- U H05K 7/1422
- • {Printed circuit boards receptacles, e.g. stacked structures, electronic circuit modules or box like frames}
- U H05K 7/1427
- • • {Housings}
- C H05K 7/1432
- • • • {*specially adapted* for power drive units *or power converters*}
- WARNING**

Group [H05K 7/1432](#) is impacted by reclassification into groups [H05K 7/14322](#), [H05K 7/14324](#), [H05K 7/14325](#), [H05K 7/14327](#), [H05K 7/14329](#), [H05K 7/14337](#) and [H05K 7/14339](#).

All groups listed in this Warning should be considered in order to perform a complete search.
- N H05K 7/14322
- • • • {wherein the control and power circuits of a power converter are arranged within the same casing}
- WARNING**
- Group [H05K 7/14322](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).
- Groups [H05K 7/1432](#) and [H05K 7/14322](#) should be considered in order to perform a complete search.
- N H05K 7/14324
- • • • • {comprising modular units, e.g. DIN rail mounted units}
- WARNING**
- Group [H05K 7/14324](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).
- Groups [H05K 7/1432](#) and [H05K 7/14324](#) should be considered in order to perform a complete search.
- N H05K 7/14325
- • • • • {for cabinets or racks}
- WARNING**
- Group [H05K 7/14325](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).
- Groups [H05K 7/1432](#) and [H05K 7/14325](#) should be considered in order to perform a complete search.
- N H05K 7/14327
- • • • • {having supplementary functional units, e.g. data transfer modules or displays or user interfaces}
- WARNING**
- Group [H05K 7/14327](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).
- Groups [H05K 7/1432](#) and [H05K 7/14327](#) should be considered in order to perform a complete search.



- N H05K 7/14329 . . . . {specially adapted for the configuration of power bus bars}
- WARNING  
Group [H05K 7/14329](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).  
Groups [H05K 7/1432](#) and [H05K 7/14329](#) should be considered in order to perform a complete search.
- N H05K 7/14337 . . . . {specially adapted for underwater operation}
- WARNING  
Group [H05K 7/14337](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).  
Groups [H05K 7/1432](#) and [H05K 7/14337](#) should be considered in order to perform a complete search.
- N H05K 7/14339 . . . . {specially adapted for high voltage operation}
- WARNING  
Group [H05K 7/14339](#) is incomplete pending reclassification of documents from group [H05K 7/1432](#).  
Groups [H05K 7/1432](#) and [H05K 7/14339](#) should be considered in order to perform a complete search.
- U H05K 7/1485 . . {Servers; Data center rooms, e.g. 19-inch computer racks}
- M H05K 7/1487 . . . {Blade **assembly assemblies**, e.g. **cases and inner arrangements blade cases or inner arrangements within a blade**}
- M H05K 7/1488 . . . {Cabinets **therefore therefor**, e.g. chassis, **racks or racks or mechanical interfaces between blades and support structures**}
- U H05K 7/20 . . Modifications to facilitate cooling, ventilating, or heating
- U H05K 7/2039 . . {characterised by the heat transfer by conduction from the heat generating element to a dissipating body (arrangements for increasing/decreasing heat-transfer, e.g. fins details, [F28F 13/00](#))}
- M H05K 7/20509 . . . {**Gold plates, e.g. multi Multiple**-component heat **spreader, support plates, non-closed structures** **spreaders; Multi-component heat-conducting support plates; Multi-component non-closed heat-conducting structures**}
- M H05K 7/20536 . . {for racks or cabinets of **standardized standardised** dimensions, e.g. **19-inch electronic racks electronic racks for aircraft or telecommunication equipment**}
- M H05K 7/20845 . . {for **vehicle electronic casings** **automotive electronic casings (H05K 7/2089 takes precedence)**}
- U H05K 9/00 Screening of apparatus or components against electric or magnetic fields (devices for absorbing radiation from an antenna [H01Q 17/00](#))**
- U H05K 9/0007 . . {Casings (standardised racks [H05K 9/0062](#))}
- U H05K 9/002 . . {with localised screening}
- U H05K 9/0022 . . . {of components mounted on printed circuit boards [PCB] (shields integrated within component packages [H01L 23/552](#); shields integrated within PCB [H05K 1/0218](#))}
- C H05K 9/0024 . . . . {Shield cases mounted on a PCB, e.g. cans, **caps, or caps or** conformal shields}
- WARNING  
Group [H05K 9/0024](#) is impacted by reclassification into groups [H05K 9/0029](#) and [H05K 9/0031](#).  
Groups [H05K 9/0024](#), [H05K 9/0029](#) and [H05K 9/0031](#) should be considered in order to perform a complete search.

- U H05K 9/0026 . . . . {integrally formed from metal sheet}
- U H05K 9/0028 . . . . . {with retainers or specific soldering features}
- N H05K 9/0029 . . . . . {made from non-conductive materials intermixed with electro-conductive particles ([H05K 9/0031](#) takes precedence)}
- WARNING**  
Group [H05K 9/0029](#) is incomplete pending reclassification of documents from groups [H05K 9/0024](#) and [H05K 9/003](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C H05K 9/003 . . . . . {made from ~~electro-conductive plastic material or combining different shielding materials~~ non-conductive materials comprising an electro-conductive coating ([H05K 9/0031](#) takes precedence)}
- WARNING**  
Group [H05K 9/003](#) is impacted by reclassification into groups [H05K 9/0029](#) and [H05K 9/0031](#). Groups [H05K 9/003](#), [H05K 9/0029](#) and [H05K 9/0031](#) should be considered in order to perform a complete search.
- N H05K 9/0031 . . . . . {combining different shielding materials}
- WARNING**  
Group [H05K 9/0031](#) is incomplete pending reclassification of documents from groups [H05K 9/0024](#) and [H05K 9/003](#). All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP11526 (Y10S)**

- D Y10S 514/00 - Y10S 514/00 **Drug, bio-affecting and body treating compositions**
- D Y10S 514/00 **Drug, bio-affecting and body treating compositions**
- D Y10S 514/01 . Ru 486, i.e. Ru 38486, Ru 486-6, mifepristone, mifestone, mifegyne, [11b-[4-[n, n-dimethylamino] phenyl]-17a-[prop-1-ynyl]- 4,9-estradiene-17b-ol-3-one, [11b,17b]11-[4-[dimethylamino]-phenyl]-17-hydroxy-17-[1-propynyl] estra-4,9-dien-3-one]
- D Y10S 514/80 . LHRH like
- D Y10S 514/801 . Collagen, gelatin or derivatives thereof
- D Y10S 514/802 . Fibrinopeptides, blood-coagulation factors or derivatives
- D Y10S 514/803 . Kinin or derivatives
- D Y10S 514/804 . Phecmycin series or derivatives
- D Y10S 514/805 . Adrenocorticotropic hormone or derivatives
- D Y10S 514/806 . Somatostatin or derivatives
- D Y10S 514/807 . Oxytoxin, vasopressin or derivatives
- D Y10S 514/808 . Calcitonin or derivatives
- D Y10S 514/809 . Enkephalin or endorphin or derivatives
- D Y10S 514/81 . Addiction
- D Y10S 514/811 . . Alcohol
- D Y10S 514/812 . . Narcotic
- D Y10S 514/813 . . Tobacco
- D Y10S 514/814 . Anemia

D	Y10S 514/815	• • Sickle-cell
D	Y10S 514/816	• Anesthetic, general
D	Y10S 514/817	• Anesthetic, topical
D	Y10S 514/818	• Anesthetic, local
D	Y10S 514/819	• Antacid, oral
D	Y10S 514/82	• • with antifatulent
D	Y10S 514/821	• Antiarrhythmic
D	Y10S 514/822	• Anticoagulation
D	Y10S 514/823	• Antidote
D	Y10S 514/824	• Arteriosclerosis
D	Y10S 514/825	• Arthritis
D	Y10S 514/826	• Asthma
D	Y10S 514/827	• Astringent, nonfacial
D	Y10S 514/828	• • Topical for the skin
D	Y10S 514/829	• Bite or sting
D	Y10S 514/83	• • insect
D	Y10S 514/831	• • Nonpoisonous animal
D	Y10S 514/832	• Blood substitute
D	Y10S 514/833	• Blood plasma extender
D	Y10S 514/834	• Coagulant
D	Y10S 514/835	• Caries
D	Y10S 514/836	• Chelate
D	Y10S 514/837	• Cholera
D	Y10S 514/838	• Cirrhosis
D	Y10S 514/839	• Contact lens treatment
D	Y10S 514/84	• • Chemical sterilizing
D	Y10S 514/841	• Contraceptive
D	Y10S 514/842	• • Non-mammal
D	Y10S 514/843	• • Female mammal
D	Y10S 514/844	• Cosmetic, facial
D	Y10S 514/845	• • Liquid make-up
D	Y10S 514/846	• • Cleansing cream or lotion
D	Y10S 514/847	• • Facial moisturizer
D	Y10S 514/848	• • Facial astringent
D	Y10S 514/849	• Cough and cold preparation
D	Y10S 514/85	• • Antitussive
D	Y10S 514/851	• Cystic fibrosis
D	Y10S 514/852	• Dandruff
D	Y10S 514/853	• Decongestant
D	Y10S 514/854	• • Vasoconstrictor
D	Y10S 514/855	• • Expectorant
D	Y10S 514/857	• Dermatitis
D	Y10S 514/858	• • Athlete's foot
D	Y10S 514/859	• • Acne

D	Y10S 514/86	• • Cellulitis
D	Y10S 514/861	• • Eczema
D	Y10S 514/862	• • Poison ivy, oak or sumac
D	Y10S 514/863	• • Psoriasis
D	Y10S 514/864	• • Seborrhea
D	Y10S 514/865	• • Diaper rash
D	Y10S 514/866	• Diabetes
D	Y10S 514/867	• Diarrhea
D	Y10S 514/868	• Distemper
D	Y10S 514/869	• Diuretic
D	Y10S 514/87	• Edema
D	Y10S 514/871	• • Topical
D	Y10S 514/872	• Emesis, motion sickness-nausea
D	Y10S 514/873	• Emollient
D	Y10S 514/874	• Estrogenic agent, noncontraceptive
D	Y10S 514/875	• Flea control
D	Y10S 514/876	• • Collar type
D	Y10S 514/877	• Gallstone
D	Y10S 514/878	• Geriatrics
D	Y10S 514/879	• • Senility
D	Y10S 514/88	• Hair treatment, application to head or scalp
D	Y10S 514/881	• • Shampoo
D	Y10S 514/882	• Hemorrhoid preparation
D	Y10S 514/883	• Hodgkin's disease
D	Y10S 514/884	• Hypoglycemia
D	Y10S 514/885	• Immune response-affecting drug
D	Y10S 514/886	• Inflammation, skin
D	Y10S 514/887	• • Topical treatment
D	Y10S 514/888	• Influenza
D	Y10S 514/889	• Interferon inducer
D	Y10S 514/89	• Irritant, e.g. tear gas
D	Y10S 514/891	• Kidney stone
D	Y10S 514/892	• Laxative
D	Y10S 514/893	• Liver disorder
D	Y10S 514/894	• • Hepatitis
D	Y10S 514/895	• Malaria
D	Y10S 514/896	• Measles
D	Y10S 514/897	• • Rubella
D	Y10S 514/898	• Meningitis
D	Y10S 514/899	• Menstrual disorder
D	Y10S 514/8995	• Mouth treatment
D	Y10S 514/90	• • Treatment or prevention of periodontitis
D	Y10S 514/901	• • Mouthwash for mouth treatment
D	Y10S 514/902	• • Treatment or prevention of gingiva

D	Y10S 514/903	• Multiple sclerosis
D	Y10S 514/904	• Multiple vitamins
D	Y10S 514/905	• • with mineral
D	Y10S 514/906	• Muscle relaxant
D	Y10S 514/907	• Muscular dystrophy
D	Y10S 514/908	• Leukemia
D	Y10S 514/909	• Obesity
D	Y10S 514/91	• • Anorectic
D	Y10S 514/911	• • Bulking agent
D	Y10S 514/912	• Ophthalmic
D	Y10S 514/913	• • Glaucoma
D	Y10S 514/914	• • Inflammation
D	Y10S 514/915	• • Wetting agent
D	Y10S 514/916	• Pyretic
D	Y10S 514/917	• Radioactive, anti-
D	Y10S 514/918	• Repellent
D	Y10S 514/919	• • Insect
D	Y10S 514/92	• • Mammal
D	Y10S 514/921	• Shock
D	Y10S 514/922	• Side-effect reduction by incorporation of a second designated ingredient
D	Y10S 514/923	• Sleep aid
D	Y10S 514/924	• Tuberculosis
D	Y10S 514/925	• Ulcer treatment
D	Y10S 514/926	• • Duodenal
D	Y10S 514/927	• • Peptic
D	Y10S 514/928	• • Topical
D	Y10S 514/929	• Vasodilator
D	Y10S 514/93	• Vasoconstrictor, nondecongestant
D	Y10S 514/931	• Venereal disease
D	Y10S 514/932	• • Gonorrhea
D	Y10S 514/933	• • Syphilis
D	Y10S 514/934	• • Virus
D	Y10S 514/935	• Uterine motility
D	Y10S 514/936	• DmsO-containing
D	Y10S 514/937	• Dispersion or emulsion
D	Y10S 514/938	• • Oil-water type
D	Y10S 514/939	• • • Mineral oil-water type
D	Y10S 514/94	• • • • Quick break type
D	Y10S 514/941	• • • • Polyoxyalkylated compound-containing
D	Y10S 514/942	• • • • Organic sulfonate, sulfate or sulfite-containing
D	Y10S 514/943	• • • • Higher fatty acid or derivative-containing
D	Y10S 514/944	• Gel
D	Y10S 514/945	• Foam
D	Y10S 514/946	• Penetrant or absorbent, increases or enhances penetration into subject treated

- D Y10S 514/947      • • Topical application
- D Y10S 514/948      • Solid candy type
- D Y10S 514/949      • Naturally derived clay, e.g. bentonite
- D Y10S 514/95      • Macromolecular, other than synthetic resins
- D Y10S 514/951      • Powders, granules or particles of specified mesh or particle size
- D Y10S 514/952      • • Wettable
- D Y10S 514/953      • Shaped forms adapted for noningestible use other than suppository type, e.g. films, inserts
- D Y10S 514/954      • • Ocular
- D Y10S 514/955      • • • Biodegradable type
- D Y10S 514/956      • • Aural or otic, i.e. ear
- D Y10S 514/957      • Vapor emitting composition
- D Y10S 514/958      • for smoking or inhaling
- D Y10S 514/959      • Breathing gases
- D Y10S 514/96      • Significant, tablet formulation, e.g. designated excipient, disintegrant, glydent or lubricant
- D Y10S 514/961      • • Binder therefor
- D Y10S 514/962      • Capsule, e.g. gelatin
- D Y10S 514/963      • • Microcapsule-sustained or differential release
- D Y10S 514/964      • Sustained or differential release type
- D Y10S 514/965      • • Discrete particles in supporting matrix
- D Y10S 514/966      • Rectal
- D Y10S 514/967      • Vaginal
- D Y10S 514/968      • Urethral
- D Y10S 514/969      • Ointment or salve base
- D Y10S 514/97      • Containing designated ingredient to stabilize an active ingredient
- D Y10S 514/971      • • Crystallization point depressant or cold stabilizer containing
- D Y10S 514/972      • • Ultraviolet light stabilizer containing
- D Y10S 514/973      • • Sulfur compound additive as stabilizer, e.g. sulfites
- D Y10S 514/974      • Containing designated ingredient to reduce noxious effects of active ingredient, e.g. taste masking, odor reducing
- D Y10S 514/975      • Characterized by the designated surfactant used