

**CPC****COOPERATIVE PATENT CLASSIFICATION****A61L**

**METHODS OR APPARATUS FOR STERILISING MATERIALS OR OBJECTS IN GENERAL; DISINFECTION, STERILISATION, OR DEODORISATION OF AIR; CHEMICAL ASPECTS OF BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES; MATERIALS FOR BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES** ( preservation of bodies or disinfecting characterised by the agent employed [A01N](#) ; preserving, e.g. sterilising, food or foodstuffs [A23](#) ; preparations for medical, dental or toilet purposes [A61K](#) ; preparation of ozone [C01B 13/10](#))

**WARNING**

The following IPC groups are not used in the CPC system. Subject matter covered by these groups is classified in the following CPC groups:

[A61L 33/10](#) covered by [A61L 33/0011](#)

[A61L 33/14](#) covered by [A61L 33/0011](#)

[A61L 33/16](#) covered by [A61L 33/0047](#)

IPC7 groups [A61L 2/07](#) and subgroups, and [A61L 9/012](#) to [A61L 9/014](#) might be incomplete as relevant documents might still be classified in the hierarchical higher groups

**Guidance heading:** **Disinfection or sterilising**

**A61L 2/00**

**Methods or apparatus for disinfecting or sterilising materials or objects other than foodstuffs or contact lenses; Accessories therefor** ( for contact lenses [A61L 12/00](#) ; atomisers for disinfecting agents [A61M](#) ; sterilisation of packages or package contents in association with packaging [B65B 55/00](#) ; treatment of water, waste water, sewage or sludge [C02F](#) ; disinfecting paper [D21H 21/36](#) ; disinfecting devices for water closets [E03D](#) ; articles having provision for disinfection, see the relevant subclasses for these articles, e.g. [H04R 1/12](#))

- [A61L 2/0005](#) . { for pharmaceuticals, biologicals or living parts }
- [A61L 2/0011](#) .. { using physical methods }
- [A61L 2/0017](#) ... { Filtration }
- [A61L 2/0023](#) ... { Heat }
- [A61L 2/0029](#) ... { Radiation }
- [A61L 2/0035](#) .... { Gamma radiation }
- [A61L 2/0041](#) .... { X-rays }
- [A61L 2/0047](#) .... { Ultraviolet radiation }
- [A61L 2/0052](#) .... { Visible light }
- [A61L 2/0058](#) .... { Infrared radiation }
- [A61L 2/0064](#) .... { Microwaves }

A61L 2/007	.... { Particle radiation, e.g. electron-beam, alpha or beta radiation }
A61L 2/0076	.... { using a photocatalyst or photosensitiser }
A61L 2/0082	.. { using chemical substances }
A61L 2/0088	... { Liquid substances }
A61L 2/0094	... { Gaseous substances }
A61L 2/02	. using physical phenomena
A61L 2/022	.. { Filtration }
A61L 2/025	.. Ultrasonics
A61L 2/03	.. Electric current
A61L 2/035	... { Electrolysis }
A61L 2/04	.. Heat ( <a href="#">A61L 2/08</a> takes precedence )
A61L 2/06	... Hot gas
A61L 2/07	.... Steam
A61L 2/08	.. Radiation
A61L 2/081	... { Gamma radiation }
A61L 2/082	... { X-rays }
A61L 2/084	... { Visible light }
A61L 2/085	... { Infrared radiation }
A61L 2/087	... { Particle radiation, e.g. electron-beam, alpha or beta radiation }
A61L 2/088	... { using a photocatalyst or photosensitiser }
A61L 2/10	... Ultra-violet radiation
A61L 2/12	... Microwaves
A61L 2/14	.. Plasma, i.e. ionised gases
A61L 2/16	. using chemical substances
A61L 2/18	.. Liquid substances { or solutions comprising solids or dissolved gases }
A61L 2/183	... { Ozone dissolved in a liquid }
A61L 2/186	... { Peroxide solutions }
A61L 2/20	.. Gaseous substances, e.g. vapours
A61L 2/202	... { Ozone }
A61L 2/204	... { Formaldehyde }
A61L 2/206	... { Ethylene oxide }
A61L 2/208	... { Hydrogen peroxide }
A61L 2/22	.. Phase substances, e.g. smokes, aerosols { or sprayed or atomised substances }
A61L 2/23	.. Solid substances, e.g. granules, powders, blocks, tablets
A61L 2/232	... layered or coated
A61L 2/235	... cellular, porous or foamed
A61L 2/238	... Metals or alloys, e.g. oligodynamic metals
A61L 2/24	. Apparatus using programmed or automatic operation

- A61L 2/26 . Accessories { or devices or components used for biocidal treatment }
- A61L 2/28 . . Devices for testing the effectiveness or completeness of sterilisation, e.g. indicators which change colour ( apparatus involving enzymes or micro-organisms [C12M 1/34](#) ; methods involving enzymes or micro-organisms [C12Q 1/00](#) )
  
- A61L 9/00** **Disinfection, sterilisation or deodorisation of air** ( body deodorants [A61Q 15/00](#) ; purifying air by respirators [A62B](#) , [A62D 9/00](#) ; separating dispersed particles from gases or vapours [B01D 45/00](#) to [B01D 51/00](#) , [B03C 3/00](#) ; chemical or biological purification of waste gases [B01D 53/34](#) ; production of ozone [C01B 13/10](#) ; air-conditioning systems incorporating sterilisation [F24F 3/16](#) )
  
- A61L 9/01 . Deodorant compositions {( compositions released by contact with a liquid [A61L 9/05](#) )}
- A61L 9/012 . . characterised by being in a special form, e.g. gels, emulsions {( [A61L 9/048](#) takes precedence )}
- A61L 9/013 . . containing animal or plant extracts, or vegetable material
- A61L 9/014 . . containing sorbent material, e.g. activated carbon
  
- A61L 9/015 . using gaseous or vaporous substances, e.g. ozone ( [A61L 9/20](#) takes precedence; { evaporation in general [B01B 1/005](#) } )
- A61L 9/02 . . using substances evaporated in the air by heating or combustion
- A61L 9/03 . . . Apparatus therefor
- A61L 9/032 . . . . { comprising a fan }
- A61L 9/035 . . . . { emanating multiple odours }
- A61L 9/037 . . . . { comprising a wick }
- A61L 9/04 . . using substances evaporated in the air without heating
- A61L 9/042 . . . { with the help of a macromolecular compound as a carrier or diluent ( [A61L 9/048](#) takes precedence ) }
- A61L 9/044 . . . { with the help of an organic compound other than a macromolecular compound }
- A61L 9/046 . . . { with the help of a non-organic compound }
- A61L 9/048 . . . { air treating gels }
- A61L 9/05 . . specially adapted to be released by contact with a liquid, e.g. for toilets
- A61L 9/12 . . . Apparatus, e.g. holders, therefor
- A61L 9/122 . . . . { comprising a fan }
- A61L 9/125 . . . . { emanating multiple odours }
- A61L 9/127 . . . . { comprising a wick }
  
- A61L 9/14 . using sprayed or atomised substances { including air-liquid contact processes }
- A61L 9/145 . . { air-liquid contact processes, e.g. scrubbing }
  
- A61L 9/16 . using physical phenomena
- A61L 9/18 . . Radiation ( [A61L 9/22](#) takes precedence )
- A61L 9/20 . . . Ultra-violet radiation
- A61L 9/205 . . . . { using a photocatalyst or photosensitiser }

A61L 9/22	.. Ionisation
<b>A61L 11/00</b>	<b>Methods specially adapted for refuse</b> {( <a href="#">desintegrating medical waste</a> <b>B02C 19/12M</b> ; <a href="#">disposal of medical waste</a> <b>B09B 3/0075</b> )}
<b>A61L 12/00</b>	<b>Methods or apparatus for disinfecting or sterilising contact lenses; Accessories therefor</b>
A61L 12/02	. using physical phenomena, e.g. electricity, ultrasonics or ultrafiltration
A61L 12/023	.. { <a href="#">Electrolysis</a> }
A61L 12/026	.. { <a href="#">Ultrasonics</a> }
A61L 12/04	.. Heat ( <a href="#">A61L 12/06</a> takes precedence )
A61L 12/06	.. Radiation, e.g. ultraviolet or microwaves
A61L 12/063	... { <a href="#">Ultraviolet radiation</a> }
A61L 12/066	... { <a href="#">Microwaves</a> }
A61L 12/08	. using chemical substances
A61L 12/082	.. { <a href="#">in combination with specific enzymes</a> }
A61L 12/084	.. { <a href="#">in a gaseous state</a> }
A61L 12/086	.. { <a href="#">Container, accessories or devices therefor</a> }
A61L 12/088	.. { <a href="#">Heavy metals</a> }
A61L 12/10	.. Halogens or compounds thereof
A61L 12/102	... { <a href="#">Chlorine dioxide (ClO<sub>2</sub>)</a> }
A61L 12/105	... { <a href="#">Iodine, iodides or iodophores</a> }
A61L 12/107	... { <a href="#">Hypohalites; Active halogens</a> }
A61L 12/12	.. Non-macromolecular oxygen-containing compounds, e.g. hydrogen peroxide or ozone ( <a href="#">A61L 12/10</a> takes precedence )
A61L 12/122	... { <a href="#">Ozone</a> }
A61L 12/124	... { <a href="#">Hydrogen peroxide; Peroxy compounds</a> }
A61L 12/126	.... { <a href="#">neutralised with catalase or peroxidase</a> }
A61L 12/128	.... { <a href="#">neutralised with catalysts</a> }
A61L 12/14	.. Organic compounds not covered by groups <a href="#">A61L 12/10</a> or <a href="#">A61L 12/12</a>
A61L 12/141	... { <a href="#">Biguanides, e.g. chlorhexidine</a> }
A61L 12/142	.... { <a href="#">Polymeric biguanides</a> }
A61L 12/143	... { <a href="#">Quaternary ammonium compounds</a> }
A61L 12/145	.... { <a href="#">Polymeric quaternary ammonium compounds</a> }
A61L 12/146	... { <a href="#">Aldehydes</a> }
A61L 12/147	... { <a href="#">Alcohols or derivatives thereof</a> ( <a href="#">aldehydes</a> <a href="#">A61L 12/146</a> )}
A61L 12/148	... { <a href="#">Mercury containing compounds, e.g. thimerosal</a> }

**Guidance heading:** **Chemical aspects of, or use of materials for, bandages, dressings or absorbent pads** { comprising a solid support or backing } ( for liquid bandages [A61L 26/00](#) ; radioactive dressings { [A61N 5/1029](#) } { transdermal delivery devices [A61K 9/7023](#) } )

**A61L 15/00** **Chemical aspects of, or use of materials for, bandages, dressings or absorbent pads** ( for liquid bandages [A61L 26/00](#) ; radioactive dressings { [A61N 5/1029](#) } )

#### **NOTE**

In each set of groups [A61L 15/08](#) to [A61L 15/12](#) and [A61L 15/18](#) to [A61L 15/40](#) , in the absence of an indication to the contrary, classification is made in the last appropriate place.

When classifying in groups [A61L 15/08](#) to [A61L 15/12](#) , classification is also made in group 15/14 if the use of materials characterised by their function or physical properties is of interest.

When classifying in groups [A61L 15/18](#) to [A61L 15/40](#) , classification is also made in groups [A61L 15/42](#) to [A61L 15/64](#) if the use of materials characterised by their function or physical properties is of interest.

- [A61L 15/07](#) . Stiffening bandages
- [A61L 15/08](#) . . containing inorganic materials, e.g. plaster of Paris
- [A61L 15/10](#) . . containing organic materials
- [A61L 15/12](#) . . containing macromolecular materials

#### **NOTE**

In group [A61L 15/12](#) and subgroups, the use of specific polymers is indicated using the relevant combination set symbol, adding, after the [A61L 15/12](#) symbol, the correspondent symbol of the polymer composition in subclass [C08L](#) , e.g. stiffening bandage based on polyurethane [A61L 15/12](#) , [C08L 75/04](#)

- [A61L 15/125](#) . . . { Mixtures of macromolecular compounds }
- [A61L 15/14](#) . . Use of materials characterised by their function or physical properties
- [A61L 15/16](#) . Bandages, dressings or absorbent pads for physiological fluids such as urine or blood, e.g. sanitary towels, tampons
- [A61L 15/18](#) . . containing inorganic materials
- [A61L 15/20](#) . . containing organic materials
- [A61L 15/22](#) . . containing macromolecular materials

#### **NOTE**

In groups [A61L 15/22](#) to [A61L 15/30](#) , the use of specific polymers is indicated using the relevant combination set symbol, adding, after the symbol

in [A61L](#) , the correspondent symbol of the polymer in subclass [C08L](#) , e.g. absorbent pad containing starch [A61L 15/22](#) , [C08L 3/02](#)

- [A61L 15/225](#) ... { [Mixtures of macromolecular compounds](#) }
- [A61L 15/24](#) ... Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds; Derivatives thereof {([A61L 15/225 takes precedence](#) )}
- [A61L 15/26](#) ... Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds; Derivatives thereof {([A61L 15/225 takes precedence](#) )}
- [A61L 15/28](#) ... Polysaccharides or their derivatives {([A61L 15/225 takes precedence](#) )}
- [A61L 15/30](#) ... Rubbers or their derivatives {([A61L 15/225 takes precedence](#) )}
- [A61L 15/32](#) ... Proteins, polypeptides; Degradation products or derivatives thereof, e.g. albumin, collagen, fibrin, gelatin {([A61L 15/225 takes precedence](#) )}
- [A61L 15/325](#) .... { [Collagen](#) }
- [A61L 15/34](#) ... Oils, fats, waxes or natural resins {([A61L 15/225 takes precedence](#) )}
- [A61L 15/36](#) .. containing micro-organisms
- [A61L 15/38](#) .. containing enzymes
- [A61L 15/40](#) .. containing ingredients of undetermined constitution or reaction products thereof, { [e.g. plant or animal extracts](#) }
- [A61L 15/42](#) .. Use of materials characterised by their function or physical properties ( [liquid bandages A61L 26/00](#) )
- [A61L 15/425](#) ... { [Porous materials, e.g. foams or sponges](#) }
- [A61L 15/44](#) ... Medicaments
- [A61L 15/46](#) ... Deodorants or malodour counteractants, e.g. to inhibit the formation of ammonia or bacteria
- [A61L 15/48](#) ... Surfactants
- [A61L 15/50](#) ... Lubricants; Anti-adhesive agents
- [A61L 15/52](#) ... Water-repellants
- [A61L 15/54](#) ... Radio-opaque materials
- [A61L 15/56](#) ... Wetness-indicators or colourants
- [A61L 15/58](#) ... Adhesives
- [A61L 15/585](#) .... { [Mixtures of macromolecular compounds](#) }
- [A61L 15/60](#) ... Liquid-swelling gel-forming materials, e.g. super-absorbents
- [A61L 15/62](#) ... { [Compostable,](#) }hydrosoluble or hydrodegradable materials
- [A61L 15/64](#) ... specially adapted to be resorbable inside the body

**A61L 17/00** **Materials for surgical sutures or for ligaturing blood vessels** ( [surgical adhesives A61L 24/00](#) ; [surgical instruments, devices or methods for suturing or ligaturing A61B 17/04](#) , [A61B 17/12](#) ; [supports or packages for suture materials A61B 17/04](#) ); { [Materials for prostheses or catheters](#) ( [bone cements or surgical adhesives for soft body tissues A61L 24/00](#) ; [shape or structure of prostheses A61F 2/00](#) ; [shape or structure of catheters A61M 5/00](#) ) }

#### **NOTE**

In groups [A61L 17/04](#) to [A61L 17/145](#) , in the absence of an indication to the contrary, classification is made in the last appropriate place.

When classifying in group [A61L 17/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic.

- [A61L 17/005](#) . { containing a biologically active substance, e.g. a medicament or a biocide }
- [A61L 17/04](#) . Non-resorbable materials
- [A61L 17/06](#) . At least partially resorbable materials
- [A61L 17/08](#) .. of animal origin, e.g. catgut, collagen
- [A61L 17/10](#) .. containing macromolecular materials
- [A61L 17/105](#) ... { Polyesters not covered by [A61L 17/12](#) }
- [A61L 17/12](#) ... Homopolymers or copolymers of glycolic acid or lactic acid
- [A61L 17/14](#) . Post-treatment to improve physical properties
- [A61L 17/145](#) .. { Coating }

#### **[A61L 24/00](#) Surgical adhesives or cements; Adhesives for colostomy devices**

##### **NOTE**

In groups [A61L 24/00](#) to [A61L 24/12](#) , the use of specific polymers is indicated using the relevant combination set symbol, adding, after the symbol in [A61L](#) , the correspondent symbol of the polymer in subclass [C08L](#) , e.g. surgical adhesives based on polymethylmethacrylate: [A61L 24/06](#) , [C08L 33/12](#)

In groups [A61L 24/02](#) to [A61L 24/12](#) , in the absence of an indication to the contrary, classification is made in the last appropriate place.

When classifying in group [A61L 24/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic.

- [A61L 24/0005](#) . { Ingredients of undetermined constitution or reaction products thereof }
- [A61L 24/001](#) . { Use of materials characterised by their function or physical properties }
- [A61L 24/0015](#) .. { Medicaments; Biocides }
- [A61L 24/0021](#) .. { Plasticisers }
- [A61L 24/0026](#) .. { Sprayable compositions }
- [A61L 24/0031](#) .. { Hydrogels or hydrocolloids }
- [A61L 24/0036](#) .. { Porous materials, e.g. foams or sponges }
- [A61L 24/0042](#) .. { Materials resorbable by the body }

- A61L 24/0047 . { Composite materials, i.e. containing one material dispersed in a matrix of the same or different material }
- A61L 24/0052 .. { with an inorganic matrix }
- A61L 24/0057 ... { Carbon }
- A61L 24/0063 ... { Phosphorus containing materials, e.g. apatite }
- A61L 24/0068 ... { Inorganic materials not covered by groups [A61L 24/0057](#) or [A61L 24/0063](#) }
- A61L 24/0073 .. { with a macromolecular matrix }
- A61L 24/0078 ... { containing fillers of carbon }
- A61L 24/0084 ... { containing fillers of phosphorus-containing inorganic compounds, e.g. apatite }
- A61L 24/0089 ... { containing inorganic fillers not covered by groups [A61L 24/0078](#) or [A61L 24/0084](#) }
- A61L 24/0094 ... { containing macromolecular fillers }
- A61L 24/02 . containing inorganic materials
- A61L 24/04 . containing macromolecular materials
- A61L 24/043 .. { Mixtures of macromolecular materials }
- A61L 24/046 .. { obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds ([A61L 24/043](#) takes precedence ) }
- A61L 24/06 .. obtained by reactions only involving carbon-to-carbon unsaturated bonds {([A61L 24/043](#) , [A61L 24/046](#) take precedence )}
- A61L 24/08 .. Polysaccharides {([A61L 24/043](#) takes precedence )}
- A61L 24/10 .. Polypeptides; Proteins {([A61L 24/043](#) takes precedence )}
- A61L 24/102 ... { Collagen }
- A61L 24/104 ... { Gelatin }
- A61L 24/106 ... { Fibrin; Fibrinogen }
- A61L 24/108 ... { Specific proteins or polypeptides not covered by groups [A61L 24/102](#) to [A61L 24/106](#) }
- A61L 24/12 .. Ionomer cements, e.g. glass-ionomer cements {([A61L 24/043](#) takes precedence )}

**A61L 26/00** **Chemical aspects of, or use of materials for, { wound dressings or }bandages { in liquid, gel or powder form }**

#### **NOTE**

When classifying in group [A61L 26/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic.

In groups [A61L 26/00](#) to **A61L 26/00R**, the use of specific polymers is indicated using the relevant combination set symbol, adding, after the symbol in [A61L](#) , the correspondent symbol of the polymer in subclass [C08L](#) , e.g. liquid bandages on alginates: [A61L 26/0023](#) , [C08L 5/04](#)

- A61L 26/0004 . { containing inorganic materials }



- A61L 26/0009 . { containing macromolecular materials }
- A61L 26/0014 .. { obtained by reactions only involving carbon-to-carbon unsaturated bonds }
- A61L 26/0019 .. { obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds }
- A61L 26/0023 .. { Polysaccharides }
- A61L 26/0028 .. { Polypeptides; Proteins; Degradation products thereof }
- A61L 26/0033 ... { Collagen }
- A61L 26/0038 ... { Gelatin }
- A61L 26/0042 ... { Fibrin; Fibrinogen }
- A61L 26/0047 ... { Specific proteins or polypeptides not covered by groups [A61L 26/0033](#) to [A61L 26/0042](#) }
- A61L 26/0052 .. { Mixtures of macromolecular compounds }
- A61L 26/0057 . { Ingredients of undetermined constitution or reaction products thereof }
- A61L 26/0061 . { Use of materials characterised by their function or physical properties }
- A61L 26/0066 .. { Medicaments; Biocides }
- A61L 26/0071 .. { Plasticisers }
- A61L 26/0076 .. { Sprayable compositions }
- A61L 26/008 .. { Hydrogels or hydrocolloids }
- A61L 26/0085 .. { Porous materials, e.g. foams or sponges }
- A61L 26/009 .. { Materials resorbable by the body }
- A61L 26/0095 . { Composite materials, i.e. containing one material dispersed in a matrix of the same or different material }

**A61L 27/00**

**Materials for { grafts or } prostheses or for coating { grafts or } prostheses ( dental prostheses [A61C 13/00](#) ; shape or structure of prostheses [A61F 2/00](#) ; use of preparations for artificial teeth [A61K 6/02](#) ; artificial kidneys [A61M 1/14](#) )**

**NOTE**

In groups [A61L 27/02](#) to [A61L 27/48](#) , in the absence of an indication to the contrary, classification is made in the last appropriate place

When classifying in groups [A61L 27/02](#) to [A61L 27/48](#) , classification is also made in groups [A61L 27/50](#) to [A61L 27/60](#) if the use of materials characterised by their function or physical properties is of interest

When classifying in group [A61L 27/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic

In group [A61L 27/00](#) , the use of specific polymers is indicated using the relevant classification symbols of subclass [C08L](#) in the second position of the combination set, e.g. prosthesis based on polyvinylchloride [A61L 27/16](#) , [C08L 27/06](#)

- A61L 27/02 . Inorganic materials

A61L 27/025	.. { Other specific inorganic materials not covered by <a href="#">A61L 27/04</a> to <a href="#">A61L 27/12</a> }
A61L 27/04	.. Metals or alloys
A61L 27/042	... { Iron or iron alloys }
A61L 27/045	... { Cobalt or cobalt alloys }
A61L 27/047	... { Other specific metals or alloys not covered by <a href="#">A61L 27/042</a> to <a href="#">A61L 27/045</a> or <a href="#">A61L 27/06</a> }
A61L 27/06	... Titanium or titanium alloys
A61L 27/08	.. Carbon; { Graphite }
A61L 27/10	.. Ceramics or glasses
A61L 27/105	... { containing $\text{Al}_2\text{O}_3$ }
A61L 27/12	.. Phosphorus-containing materials, e.g. apatite
A61L 27/14	. Macromolecular materials
A61L 27/16	.. obtained by reactions only involving carbon-to-carbon unsaturated bonds
A61L 27/165	... { Rubbers }
A61L 27/18	.. obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
A61L 27/20	.. Polysaccharides
A61L 27/22	.. Polypeptides or derivatives thereof, { e.g. degradation products }
A61L 27/222	... { Gelatin }
A61L 27/225	... { Fibrin; Fibrinogen }
A61L 27/227	... { Other specific proteins or polypeptides not covered by <a href="#">A61L 27/222</a> , <a href="#">A61L 27/225</a> or <a href="#">A61L 27/24</a> }
A61L 27/24	... Collagen
A61L 27/26	.. Mixtures of macromolecular compounds
A61L 27/28	. Materials for coating prostheses
A61L 27/30	.. Inorganic materials
A61L 27/303	... { Carbon }
A61L 27/306	... { Other specific inorganic materials not covered by <a href="#">A61L 27/303</a> to <a href="#">A61L 27/32</a> }
A61L 27/32	... Phosphorus-containing materials, e.g. apatite
A61L 27/34	.. Macromolecular materials
A61L 27/36	. containing ingredients of undetermined constitution or reaction products thereof, { e.g. transplant tissue, natural bone, extracellular matrix ( isolated natural compounds, e.g. collagen <a href="#">A61L 27/24</a> ) }
A61L 27/3604	.. { characterised by the human or animal origin of the biological material, e.g. hair, fascia, fish scales, silk, shellac, pericardium, pleura, renal tissue, amniotic membrane, parenchymal tissue, fetal tissue, muscle tissue, fat tissue, enamel }
A61L 27/3608	... { Bone, e.g. demineralised bone matrix [DBM] , bone powder }
A61L 27/3612	... { Cartilage, synovial fluid }
A61L 27/3616	... { Blood, e.g. platelet-rich plasma }

A61L 27/362	...	{ Skin, e.g. dermal papillae }
A61L 27/3625	...	{ Vascular tissue, e.g. heart valves }
A61L 27/3629	...	{ Intestinal tissue, e.g. small intestinal submucosa }
A61L 27/3633	...	{ Extracellular matrix (ECM) }
A61L 27/3637	..	{ characterised by the origin of the biological material other than human or animal , e.g. plant extracts, algae }
A61L 27/3641	..	{ characterised by the site of application in the body ( materials for artificial blood vessels <a href="#">A61L 27/507</a> ; materials for use in artificial skin <a href="#">A61L 27/60</a> )}
A61L 27/3645	...	{ Connective tissue }
A61L 27/365	....	{ Bones }
A61L 27/3654	....	{ Cartilage, e.g. meniscus }
A61L 27/3658	.....	{ Intervertebral discs ( mechanical aspects and structures of intervertebral discs <a href="#">A61F 2/442</a> )}
A61L 27/3662	....	{ Ligaments, tendons }
A61L 27/3666	...	{ Epithelial tissues other than skin }
A61L 27/367	...	{ Muscle tissue, e.g. sphincter }
A61L 27/3675	...	{ Nerve tissue, e.g. brain, spinal cord, nerves, dura mater }
A61L 27/3679	...	{ Hollow organs, e.g. bladder, esophagus, urether, uterus, intestine }
A61L 27/3683	..	{ subjected to a specific treatment prior to implantation, e.g. decellularising, demineralising, grinding, cellular disruption/non-collagenous protein removal, anti-calcification, crosslinking, supercritical fluid extraction, enzyme treatment }
A61L 27/3687	...	{ characterised by the use of chemical agents in the treatment, e.g. specific enzymes, detergents, capping agents, crosslinkers, anticalcification agents }
A61L 27/3691	...	{ characterised by physical conditions of the treatment, e.g. applying a compressive force to the composition, pressure cycles, ultrasonic/sonication or microwave treatment, lyophilisation }
A61L 27/3695	...	{ characterised by the function or physical properties of the final product, where no specific conditions are defined to achieve this ( <a href="#">A61L 27/3687</a> , <a href="#">A61L 27/3691</a> take precedence )}
A61L 27/38	..	{ containing added animal cells ( organs or tissue containing native cells <a href="#">A61L 27/36</a> )}
A61L 27/3804	...	{ characterised by specific cells or progenitors thereof, e.g. fibroblasts, connective tissue cells, kidney cells }
A61L 27/3808	....	{ Endothelial cells }
A61L 27/3813	....	{ Epithelial cells, e.g. keratinocytes, urothelial cells }
A61L 27/3817	....	{ Cartilage-forming cells, e.g. pre-chondrocytes }
A61L 27/3821	....	{ Bone-forming cells, e.g. osteoblasts, osteocytes, osteoprogenitor cells }
A61L 27/3826	....	{ Muscle cells, e.g. smooth muscle cells }
A61L 27/383	....	{ Nerve cells, e.g. dendritic cells, Schwann cells }
A61L 27/3834	....	{ Cells able to produce different cell types, e.g. hematopoietic stem cells, mesenchymal stem cells, marrow stromal cells, embryonic stem cells }
A61L 27/3839	...	{ characterised by the site of application in the body ( materials for artificial blood vessels <a href="#">A61L 27/507</a> ; materials for use in artificial skin <a href="#">A61L 27/60</a> )}
A61L 27/3843	....	{ Connective tissue }

- A61L 27/3847 ..... { Bones }
- A61L 27/3852 ..... { Cartilage, e.g. meniscus }
- A61L 27/3856 ..... { Intervertebral discs ( mechanical aspects and structures of intervertebral discs [A61F 2/442](#)) }
- A61L 27/386 ..... { Ligaments, tendons }
- A61L 27/3865 ..... { Dental/periodontal tissues }
- A61L 27/3869 ..... { Epithelial tissues other than skin }
- A61L 27/3873 ..... { Muscle tissue, e.g. sphincter }
- A61L 27/3878 ..... { Nerve tissue, brain, spinal cord, nerves, dura mater }
- A61L 27/3882 ..... { Hollow organs, e.g. bladder, esophagus, urether, uterus }
- A61L 27/3886 ... { comprising two or more cell types }
- A61L 27/3891 ..... { as distinct cell layers }
- A61L 27/3895 ... { using specific culture conditions, e.g. stimulating differentiation of stem cells, pulsatile flow conditions }
  
- A61L 27/40 . Composite materials, i.e. containing one material dispersed in a matrix of the same or different material
- A61L 27/42 .. having an inorganic matrix
- A61L 27/422 ... { of carbon }
- A61L 27/425 ... { of phosphorus containing material, e.g. apatite }
- A61L 27/427 ... { of other specific inorganic materials not covered by [A61L 27/422](#) or [A61L 27/425](#) }
- A61L 27/44 .. having a macromolecular matrix
- A61L 27/443 ... { with carbon fillers }
- A61L 27/446 ... { with other specific inorganic fillers other than those covered by [A61L 27/443](#) or [A61L 27/46](#) }
- A61L 27/46 ... with phosphorus-containing inorganic fillers
- A61L 27/48 ... with macromolecular fillers
  
- A61L 27/50 . Materials characterised by their function or physical properties, { e.g. injectable or lubricating compositions, shape-memory materials, surface modified materials }
- A61L 27/502 .. { Plasticizers }
- A61L 27/505 .. { Stabilizers }
- A61L 27/507 .. { for artificial blood vessels ( apparatus for applying cells on a blood vessel prosthesis [A61F 2/062](#)) }
- A61L 27/52 .. Hydrogels or hydrocolloids
- A61L 27/54 .. Biologically active materials, e.g. therapeutic substances ( { [A61L 27/227](#) takes precedence } )
- A61L 27/56 .. Porous materials, { e.g. foams or sponges }
- A61L 27/58 .. Materials at least partially resorbable by the body
- A61L 27/60 .. Materials for use in artificial skin

**A61L 28/00****Materials for colostomy devices ( adhesives for colostomy devices [A61L 24/00](#))****NOTE**

When classifying in group [A61L 28/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic.

- [A61L 28/0003](#) . { containing inorganic materials }
- [A61L 28/0007](#) . { containing macromolecular materials }
- [A61L 28/0011](#) .. { obtained by reactions only involving carbon-to-carbon unsaturated bonds }
- [A61L 28/0015](#) .. { obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds }
- [A61L 28/0019](#) .. { Polysaccharides }
- [A61L 28/0023](#) .. { Polypeptides; Proteins; Degradation products thereof }
- [A61L 28/0026](#) .. { Mixtures of macromolecular compounds }
- [A61L 28/003](#) . { Ingredients of undetermined constitution or reaction products thereof }
- [A61L 28/0034](#) . { Use of materials characterised by their function or physical properties }
- [A61L 28/0038](#) .. { Medicaments; Biocides }
- [A61L 28/0042](#) .. { Plasticisers }
- [A61L 28/0046](#) .. { Sprayable compositions }
- [A61L 28/0049](#) .. { Hydrogels or hydrocolloids }
- [A61L 28/0053](#) .. { Porous materials, e.g. foams or sponges }
- [A61L 28/0057](#) .. { Materials resorbable by the body }
- [A61L 28/0061](#) . { Materials for coating }
- [A61L 28/0065](#) .. { Inorganic materials }
- [A61L 28/0069](#) .. { Macromolecular materials }
- [A61L 28/0073](#) . { Composite materials, i.e. containing one material dispersed in a matrix of the same or different material }
- [A61L 28/0076](#) .. { with an inorganic matrix }
- [A61L 28/008](#) .. { with a macromolecular matrix }
- [A61L 28/0084](#) ... { containing fillers of carbon }
- [A61L 28/0088](#) ... { containing fillers of phosphorus-containing inorganic compounds }
- [A61L 28/0092](#) ... { containing inorganic fillers not covered by groups [A61L 28/0084](#) or [A61L 28/0088](#) }
- [A61L 28/0096](#) ... { containing macromolecular fillers }

**A61L 29/00**

**Materials for catheters, { medical tubing, cannulae, or endoscopes } or for coating catheters ( shape or structure of catheters [A61M 25/00](#))**

**NOTE**

In groups [A61L 29/02](#) to { **A61L 29/12D** }, in the absence of an indication to the contrary, classification is made in the last appropriate place

When classifying in groups [A61L 29/02](#) to { **A61L 29/12D** }, classification is also made in groups [A61L 29/14](#) to [A61L 29/18](#) if the use of materials characterised by their function or physical properties is of interest

When classifying in group [A61L 29/00](#), classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic

In group [A61L 29/00](#), the use of specific polymers is indicated using the relevant classification symbols of subclass [C08L](#) in the combination set, e.g. a catheter based on polyvinylchloride **A61L 29/04B**, [C08L 27/06](#)

- [A61L 29/005](#) . { Ingredients of undetermined constitution or reaction products thereof }
- [A61L 29/02](#) . Inorganic materials
- [A61L 29/04](#) . Macromolecular materials
  - [A61L 29/041](#) .. { obtained by reactions only involving carbon-to-carbon unsaturated bonds }
  - [A61L 29/042](#) ... { Rubbers }
  - [A61L 29/043](#) .. { Polysaccharides }
  - [A61L 29/044](#) .. { Proteins; Polypeptides; Degradation products thereof }
  - [A61L 29/045](#) ... { Collagen }
  - [A61L 29/046](#) ... { Gelatin }
  - [A61L 29/047](#) ... { Fibrin; Fibrinogen }
  - [A61L 29/048](#) ... { Other specific proteins or polypeptides not covered by [A61L 29/045](#) to [A61L 29/047](#) }
  - [A61L 29/049](#) .. { Mixtures of macromolecular compounds }
  - [A61L 29/06](#) .. obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- [A61L 29/08](#) . Materials for coatings
  - [A61L 29/085](#) .. { Macromolecular materials }
  - [A61L 29/10](#) .. Inorganic materials
    - [A61L 29/103](#) ... { Carbon }
    - [A61L 29/106](#) ... { Inorganic materials other than carbon }
- [A61L 29/12](#) . Composite materials, i.e. containing one material dispersed in a matrix of the same or different material
  - [A61L 29/123](#) .. { having an inorganic matrix }

- A61L 29/126 .. { having a macromolecular matrix }
- A61L 29/14 . Materials characterised by their function or physical properties, { e.g. lubricating compositions }
- A61L 29/141 .. { Plasticizers }
- A61L 29/143 .. { Stabilizers }
- A61L 29/145 .. { Hydrogels or hydrocolloids }
- A61L 29/146 .. { Porous materials, e.g. foams or sponges }
- A61L 29/148 .. { Materials at least partially resorbable by the body }
- A61L 29/16 .. Biologically active materials, e.g. therapeutic substances ({ [A61L 29/048](#) takes precedence })
- A61L 29/18 .. Materials at least partially X-ray or laser opaque

**A61L 31/00** **Materials for other surgical articles**, { e.g. stents, stent-grafts, shunts, surgical drapes, guide wires, materials for adhesion prevention, occluding devices, surgical gloves, tissue fixation devices ( shape or structure of stent-grafts [A61F 2/07](#) , of stents [A61F 2/82](#) , of surgical gloves [A61B 19/04](#) , of surgical drapes [A61B 19/08](#) , of occluding devices [A61B 17/12022](#) ) }

#### **NOTE**

In groups [A61L 31/02](#) to { [A61L 31/129](#) } , in the absence of an indication to the contrary, classification is made in the last appropriate place

When classifying in groups [A61L 31/02](#) to { [A61L 31/129](#) } , classification is also made in groups [A61L 31/14](#) to [A61L 31/18](#) if the use of materials characterised by their function or physical properties is of interest

When classifying in group [A61L 31/00](#) , classification is also made in [A61L 33/00](#) if the materials used are antithrombogenic

In group [A61L 31/00](#) , the use of specific polymers is indicated using the relevant classification symbols of subclass [C08L](#) in the second position of the combination set, e.g. surgical clamp based on polyvinylchloride [A61L 31/04H](#), [C08L 27/06](#)

- A61L 31/005 . { Ingredients of undetermined constitution or reaction products thereof }
- A61L 31/02 . Inorganic materials
- A61L 31/022 .. { Metals or alloys }
- A61L 31/024 .. { Carbon; Graphite }
- A61L 31/026 .. { Ceramic or ceramic-like structures, e.g. glasses }
- A61L 31/028 .. { Other inorganic materials not covered by [A61L 31/022](#) to [A61L 31/026](#) }
- A61L 31/04 . Macromolecular materials
- A61L 31/041 .. { Mixtures of macromolecular compounds }
- A61L 31/042 .. { Polysaccharides }
- A61L 31/043 .. { Proteins; Polypeptides; Degradation products thereof }

- A61L 31/044 ... { Collagen }
- A61L 31/045 ... { Gelatin }
- A61L 31/046 ... { Fibrin; Fibrinogen }
- A61L 31/047 ... { Other specific proteins or polypeptides not covered by [A61L 31/044](#) to [A61L 31/046](#) }
- A61L 31/048 .. { obtained by reactions only involving carbon-to-carbon unsaturated bonds ([A61L 31/041](#) takes precedence ) }
- A61L 31/049 ... { Rubbers }
- A61L 31/06 .. obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds { ([A61L 31/041](#) takes precedence ) }
  
- A61L 31/08 . Materials for coatings
- A61L 31/082 .. { Inorganic materials }
- A61L 31/084 ... { Carbon; Graphite }
- A61L 31/086 ... { Phosphorus-containing materials, e.g. apatite }
- A61L 31/088 ... { Other specific inorganic materials not covered by [A61L 31/084](#) or [A61L 31/086](#) }
- A61L 31/10 .. Macromolecular material
  
- A61L 31/12 . Composite materials, i.e. containing one material dispersed in a matrix of the same or different material
- A61L 31/121 .. { having an inorganic matrix }
- A61L 31/122 ... { of carbon }
- A61L 31/123 ... { of phosphorus-containing materials , e.g. apatite }
- A61L 31/124 ... { of other specific inorganic materials not covered by [A61L 31/122](#) or [A61L 31/123](#) }
- A61L 31/125 .. { having a macromolecular matrix }
- A61L 31/126 ... { containing carbon fillers }
- A61L 31/127 ... { containing fillers of phosphorus-containing inorganic materials }
- A61L 31/128 ... { containing other specific inorganic fillers not covered by [A61L 31/126](#) or [A61L 31/127](#) }
- A61L 31/129 ... { containing macromolecular fillers }
  
- A61L 31/14 . Materials characterised by their function or physical properties, { e.g. injectable or lubricating compositions, shape-memory materials, surface modified materials }
- A61L 31/141 .. { Plasticizers }
- A61L 31/143 .. { Stabilizers }
- A61L 31/145 .. { Hydrogels or hydrocolloids }
- A61L 31/146 .. { Porous materials, e.g. foams or sponges }
- A61L 31/148 .. { Materials at least partially resorbable by the body }
- A61L 31/16 .. Biologically active materials, e.g. therapeutic substances { [A61L 31/047](#) takes precedence }
- A61L 31/18 .. Materials at least partially X-ray or laser opaque



**A61L 33/00**

**Antithrombogenic treatment of surgical articles, e.g. sutures, catheters, prostheses, or of articles for the manipulation or conditioning of blood; Materials for such treatment**

**NOTE**

In groups [A61L 33/0076](#) to [A61L 33/0094](#) and [A61L 33/02](#) to **A61L 33/12A**, in the absence of an indication to the contrary, classification is made in the last appropriate place

When classifying in groups [A61L 33/02](#) to **A61L 33/12A**, classification is also made in group [A61L 33/0005](#) if of interest

In group [A61L 33/00](#), the use of specific polymers is indicated using the relevant classification symbols of subclass [C08L](#) in the second position of the combination set, e.g. antithrombogenic treatment with the help of polyvinylchloride **A61L 33/06B**, [C08L 27/06](#)

- [A61L 33/0005](#) . { Use of materials characterised by their function or physical properties }
- [A61L 33/0011](#) .. { Anticoagulant, e.g. heparin, platelet aggregation inhibitor, fibrinolytic agent, other than enzymes, attached to the substrate }
- [A61L 33/0017](#) ... { using a surface active agent }
- [A61L 33/0023](#) ... { using a quaternized group or a protonated amine group of the substrate }
- [A61L 33/0029](#) ... { using an intermediate layer of polymer }
- [A61L 33/0035](#) ... { using a polymer with positively charged atoms in the polymeric backbone, e.g. ionenes }
- [A61L 33/0041](#) ... { characterised by the choice of an antithrombotic agent other than heparin ( [heparinoid A61L 33/08](#) ; [polypeptides A61L 33/12](#) ) }
- [A61L 33/0047](#) .. { Enzymes, e.g. urokinase, streptokinase }
- [A61L 33/0052](#) .. { Plasticizers }
- [A61L 33/0058](#) .. { Stabilizers }
- [A61L 33/0064](#) .. { Hydrogels or hydrocolloids }
- [A61L 33/007](#) .. { Porous materials, e.g. foams or sponges }
- [A61L 33/0076](#) . { Chemical modification of the substrate }
- [A61L 33/0082](#) .. { by reacting with an organic compound other than heparin }
- [A61L 33/0088](#) .. { by grafting of a monomer onto the substrate }
- [A61L 33/0094](#) . { Physical treatment, e.g. plasma treatment }
- [A61L 33/02](#) . Use of inorganic materials
- [A61L 33/022](#) .. { Metal or alloys }
- [A61L 33/025](#) .. { Carbon; Graphite }
- [A61L 33/027](#) .. { Other specific inorganic materials not covered by [A61L 33/022](#) or [A61L 33/025](#) }
- [A61L 33/04](#) . Use of organic materials, e.g. acetylsalicylic acid

A61L 33/06	. Use of macromolecular materials ( <a href="#">grafting of a monomer onto the substrate A61L 33/0088</a> )
A61L 33/062	.. { <a href="#">Mixtures of macromolecular compounds</a> }
A61L 33/064	.. { <a href="#">obtained by reactions only involving carbon-to-carbon unsaturated bonds (A61L 33/062 takes precedence )</a> }
A61L 33/066	... { <a href="#">Rubbers</a> }
A61L 33/068	.. { <a href="#">obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds (A61L 33/062 takes precedence )</a> }
A61L 33/08	.. Polysaccharides
A61L 33/12	.. Polypeptides, proteins or derivatives thereof, { <a href="#">e.g. degradation products thereof</a> }
A61L 33/122	... { <a href="#">Collagen</a> }
A61L 33/124	... { <a href="#">Gelatin</a> }
A61L 33/126	... { <a href="#">Fibrin</a> }
A61L 33/128	... { <a href="#">Other specific proteins or polypeptides not covered by A61L 33/122 to A61L 33/126</a> }
A61L 33/18	. Use of ingredients of undetermined constitution or reaction products thereof

**A61L 2202/00 Aspects relating to methods or apparatus for disinfecting or sterilising materials or objects**

A61L 2202/10	. Apparatus features
A61L 2202/11	.. Apparatus for generating biocidal substances, e.g. vaporisers, UV lamps
A61L 2202/12	.. Apparatus for isolating biocidal substances from the environment
A61L 2202/121	... Sealings, e.g. doors, covers, valves, sluices
A61L 2202/122	... Chambers for sterilisation
A61L 2202/123	... Connecting means
A61L 2202/13	.. Biocide decomposition means, e.g. catalysts, sorbents
A61L 2202/14	.. Means for controlling sterilisation processes, data processing, presentation and storage means, e.g. sensors, controllers, programs
A61L 2202/15	.. Biocide distribution means, e.g. nozzles, pumps, manifolds, fans, baffles, sprayers
A61L 2202/16	.. Mobile applications, e.g. portable devices, trailers, devices mounted on vehicles
A61L 2202/17	.. Combination with washing or cleaning means
A61L 2202/18	.. Aseptic storing means
A61L 2202/181	... Flexible packaging means, e.g. permeable membranes, paper
A61L 2202/182	... Rigid packaging means
A61L 2202/20	. Targets to be treated
A61L 2202/21	.. Pharmaceuticals, e.g. medicaments, artificial body parts
A61L 2202/22	.. Blood or products thereof
A61L 2202/23	.. Containers, e.g. vials, bottles, syringes, mail
A61L 2202/24	.. Medical instruments, e.g. endoscopes, catheters, sharps

- A61L 2202/25      ..      Rooms in buildings, passenger compartments
- A61L 2202/26      ..      Textiles, e.g. towels, beds, cloths

#### **A61L 2209/00      Aspects relating to disinfection, sterilisation or deodorisation of air**

- A61L 2209/10      .      Apparatus features
- A61L 2209/11      ..      Apparatus for controlling air treatment
- A61L 2209/111      ...      Sensor means, e.g. motion, brightness, scent, contaminant sensors
- A61L 2209/12      ..      Lighting means
- A61L 2209/13      ..      Dispensing or storing means for active compounds
- A61L 2209/131      ...      Semi-permeable membranes
- A61L 2209/132      ...      Piezo or ultrasonic elements for dispensing
- A61L 2209/133      ...      Replaceable cartridges, refills
- A61L 2209/134      ...      Distributing means, e.g. baffles, valves, manifolds, nozzles
- A61L 2209/135      ...      Vaporisers for active components
- A61L 2209/14      ..      Filtering means
- A61L 2209/15      ..      Supporting means, e.g. stands, hooks, holes for hanging
- A61L 2209/16      ..      Connections to a HVAC unit
- A61L 2209/20      .      Method-related aspects
- A61L 2209/21      ..      Use of chemical compounds for treating air or the like
- A61L 2209/211      ...      Use of hydrogen peroxide, liquid and vaporous
- A61L 2209/212      ...      Use of ozone, e.g. generated by UV radiation or electrical discharge
- A61L 2209/213      ...      Use of electrochemically treated water, e.g. electrolysed water or water treated by electrical discharge
- A61L 2209/22      ..      Treatment by sorption, e.g. absorption, adsorption, chemisorption, scrubbing, wet cleaning

#### **A61L 2300/00      Biologically active materials used in bandages, wound dressings, absorbent pads or medical devices**

- A61L 2300/10      .      containing or releasing inorganic materials
- A61L 2300/102      ..      Metals or metal compounds, e.g. salts such as bicarbonates, carbonates, oxides, zeolites, silicates
- A61L 2300/104      ...      Silver, e.g. silver sulfadiazine
- A61L 2300/106      ..      Halogens or compounds thereof, e.g. iodine, chlorite
- A61L 2300/108      ..      Elemental carbon , e.g. charcoal
- A61L 2300/11      ..      Peroxy compounds, peroxides, e.g. hydrogen peroxide
- A61L 2300/112      ..      Phosphorus-containing compounds, e.g. phosphates, phosphonates
- A61L 2300/114      ..      Nitric oxide, i.e. NO
- A61L 2300/20      .      containing or releasing organic materials

- A61L 2300/202 .. with halogen atoms, e.g. triclosan, povidone-iodine
- A61L 2300/204 .. with nitrogen-containing functional groups, e.g. aminoxides, nitriles, guanidines
- A61L 2300/206 ... Biguanides, e.g. chlorhexidine
- A61L 2300/208 ... Quaternary ammonium compounds
- A61L 2300/21 .. Acids
- A61L 2300/212 ... Peroxy acids, peracids
- A61L 2300/214 ... Amino acids
- A61L 2300/216 .. with other specific functional groups, e.g. aldehydes, ketones, phenols, quaternary phosphonium groups
- A61L 2300/22 .. Lipids, fatty acids, e.g. prostaglandins, oils, fats, waxes
- A61L 2300/222 ... Steroids, e.g. corticosteroids
- A61L 2300/224 .. containing metals, e.g. porphyrins, vitamin B12
- A61L 2300/23 .. Carbohydrates
- A61L 2300/232 ... Monosaccharides, disaccharides, polysaccharides, lipopolysaccharides
- A61L 2300/236 ... Glycosaminoglycans, e.g. heparin, hyaluronic acid, chondroitin
- A61L 2300/25 .. Peptides having up to 20 amino acids in a defined sequence
- A61L 2300/252 .. Polypeptides, proteins, e.g. glycoproteins, lipoproteins, cytokines
- A61L 2300/254 ... Enzymes, proenzymes
- A61L 2300/256 ... Antibodies, e.g. immunoglobulins, vaccines
- A61L 2300/258 .. Genetic materials, DNA, RNA, genes, vectors, e.g. plasmids
- A61L 2300/30 .. Compounds of undetermined constitution extracted from natural sources, e.g. Aloe Vera
- A61L 2300/40 . characterised by a specific therapeutic activity or mode of action
- A61L 2300/402 .. Anaesthetics, analgesics, e.g. lidocaine
- A61L 2300/404 .. Biocides, antimicrobial agents, antiseptic agents
- A61L 2300/406 ... Antibiotics
- A61L 2300/408 ... Virucides, spermicides
- A61L 2300/41 .. Anti-inflammatory agents, e.g. NSAIDs
- A61L 2300/412 .. Tissue-regenerating or healing or proliferative agents
- A61L 2300/414 ... Growth factors
- A61L 2300/416 .. Anti-neoplastic or anti-proliferative or anti-restenosis or anti-angiogenic agents, e.g. paclitaxel, sirolimus
- A61L 2300/418 .. Agents promoting blood coagulation, blood-clotting agents, embolising agents
- A61L 2300/42 .. Anti-thrombotic agents, anticoagulants, anti-platelet agents
- A61L 2300/422 .. Anti-atherosclerotic agents
- A61L 2300/424 .. Anti-adhesion agents
- A61L 2300/426 .. Immunomodulating agents, i.e. cytokines, interleukins, interferons
- A61L 2300/428 .. Vitamins, e.g. tocopherol, riboflavin
- A61L 2300/43 .. Hormones, e.g. dexamethasone
- A61L 2300/432 .. Inhibitors, antagonists ([A61L 2300/402](#) to [A61L 2300/43](#) take precedence )

A61L 2300/434	... of enzymes
A61L 2300/436	... of receptors
A61L 2300/438	.. Antigens
A61L 2300/44	.. Radioisotopes, radionuclides
A61L 2300/442	.. Colorants, dyes
A61L 2300/45	.. Mixtures of two or more drugs, e.g. synergistic mixtures
A61L 2300/452	.. Lubricants
A61L 2300/60	. characterised by a special physical form
A61L 2300/602	.. Type of release, e.g. controlled, sustained, slow
A61L 2300/604	... Biodegradation
A61L 2300/606	.. Coatings
A61L 2300/608	... having two or more layers
A61L 2300/61	.... containing two or more active agents in different layers
A61L 2300/62	.. Encapsulated active agents, e.g. emulsified droplets
A61L 2300/622	... Microcapsules
A61L 2300/624	... Nanocapsules
A61L 2300/626	... Liposomes, micelles, vesicles
A61L 2300/63	.. Crystals
A61L 2300/64	.. Animal cells
A61L 2300/80	. characterised by a special chemical form
A61L 2300/802	.. Additives, excipients, e.g. cyclodextrins, fatty acids, surfactants

#### **A61L 2400/00      Materials characterised by their function or physical properties**

A61L 2400/02	. Treatment of implants to prevent calcification or mineralisation in vivo
A61L 2400/04	. Materials for stopping bleeding
A61L 2400/06	. Flowable or injectable implant compositions
A61L 2400/08	. Methods for forming porous structures using a negative form which is filled and then removed by pyrolysis or dissolution
A61L 2400/10	. Materials for lubricating medical devices
A61L 2400/12	. Nanosized materials, e.g. nanofibres, nanoparticles, nanowires, nanotubes; Nanostructured surfaces
A61L 2400/14	. Adhesives for ostomy devices
A61L 2400/16	. Materials with shape-memory or superelastic properties

- A61L 2400/18 . Modification of implant surfaces in order to improve biocompatibility, cell growth, fixation of biomolecules, e.g. plasma treatment

#### **A61L 2420/00      Materials or methods for coatings medical devices**

- A61L 2420/02 . Methods for coating medical devices
- A61L 2420/04 . Coatings containing a composite material such as inorganic/organic, i.e. material comprising different phases
- A61L 2420/06 . Coatings containing a mixture of two or more compounds
- A61L 2420/08 . Coatings comprising two or more layers

#### **A61L 2430/00      Materials or treatment for tissue regeneration**

- A61L 2430/02 . for reconstruction of bones; weight-bearing implants
- A61L 2430/04 . for mammary reconstruction
- A61L 2430/06 . for cartilage reconstruction, e.g. meniscus
- A61L 2430/10 . for reconstruction of tendons or ligaments
- A61L 2430/12 . for dental implants or prostheses
- A61L 2430/14 . for ear reconstruction or ear implants, e.g. implantable hearing aids
- A61L 2430/16 . for reconstruction of eye parts, e.g. intraocular lens, cornea
- A61L 2430/18 . for hair reconstruction
- A61L 2430/20 . for reconstruction of the heart, e.g. heart valves
- A61L 2430/22 . for reconstruction of hollow organs, e.g. bladder, esophagus, urether, uterus
- A61L 2430/24 . for joint reconstruction
- A61L 2430/26 . for kidney reconstruction
- A61L 2430/28 . for liver reconstruction
- A61L 2430/30 . for muscle reconstruction
- A61L 2430/32 . for nerve reconstruction
- A61L 2430/34 . for soft tissue reconstruction

- [A61L 2430/36](#) . for embolization or occlusion, e.g. vaso-occlusive compositions or devices ( [artificial blood vessels A61L 27/507](#))
- [A61L 2430/38](#) . for reconstruction of the spine, vertebrae or intervertebral discs
- [A61L 2430/40](#) . Preparation and treatment of biological tissue for implantation, e.g. decellularisation, cross-linking