CPC COOPERATIVE PATENT CLASSIFICATION

C08F MACROMOLECULAR COMPOUNDS OBTAINED BY REACTIONS ONLY INVOLVING CARBON-TO-CARBON UNSATURATED BONDS

NOTES

1. In this subclass, boron or silicon are considered as metals.
2. In this subclass, the following expression is used with the meaning indicated:
   - aliphatic radical" means an acyclic or a non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to:
     a. an element other than carbon
     b. a carbon atom having a double bond to one atom other than carbon
     c. an aromatic carbocyclic ring or a heterocyclic ring.

     Examples: Polymers of
     1. CH_2=CH-O-CH_2-CH_2-NH-C(=O)O-CH_2-CH_2-OH are classified in group C08F 16/28
     2. CH_2=CH-C(=O)-CH=CH_2 are classified in group C08F 16/36
     3. para-C_6H_4Cl(CH=CH_2) are classified in group C08F 12/18.
3. In this subclass:
   a. in the absence of an indication to the contrary, a catalyst or a polymer is classified in the last appropriate place .
   b. {From April 2012 onwards, in a copolymer, the monomer in majority is given an Indexing Code and the monomer(s) in minority are given Indexing Code(s) in the form of a C-Set. The Indexing Codes are linked. The monomer in majority is always indicated first in the C-set. Example: a copolymer having ethylene in majority and styrene in minority is classified in (C08F 210/02, C08F 212/08).}
4. In this subclass:
   a. macromolecular compounds and their preparation are classified in the groups for the type of compound prepared. General processes for the preparation of macromolecular compounds according to more than one main group are classified in the groups for the processes employed (C08F 2/00 to C08F 8/00). Processes for the preparation of macromolecular compounds are also classified in the groups for the types of reactions employed, if of interest;
   b. subject matter relating to both homopolymers and copolymers is classified in groups C08F 10/00 to C08F 38/00;
   c. subject matter limited to homopolymers is classified only in groups C08F 110/00 to C08F 138/00;
   d. subject matter limited to copolymers is classified only in groups C08F 210/00 to C08F 246/00;
   e. in groups C08F 210/00 to C08F 238/00, in the absence of an indication to the contrary, a copolymer is classified according to the major monomeric component.
5. This subclass covers also compositions based on monomers which form macromolecular compounds classifiable in this subclass (paints C09D 4/00; adhesives C09J 4/00). In this subclass:
   a. if the monomers are defined, classification is made according to the polymer to be formed:
      - in groups C08F 10/00 to C08F 246/00 if no preformed polymer is present;

C08F
(continued)

- in groups C08F 251/00 to C08F 291/00 if a preformed polymer is present, considering the reaction to take place as a graft or cross-linking reaction;

b. if the presence of compounding ingredients is of interest, classification is made in group C08F 2/44 (sensitising agents C08F 2/50; catalysts C08F 4/00);
c. if the compounding ingredients are of interest per se, classification is also made in subclass C08K.

Processes; Catalysts

C08F 2/00 **Processes of polymerisation**

NOTE

Group C08F 2/00 and subgroups can be incomplete according to the following classification rules:
- if a process of polymerisation is specifically used for only one type of polymer, it is not classified in C08F 2/00;
- in such a case, the classification symbol of C08F 2/00 providing for the process of polymerisation may be used in the form of Combination Set in the groups providing for the polymer, e.g. (C08F 36/04, C08F 2/14)
- this method of classification is applied only when a note after the group providing for the polymer explicitly indicates which symbols of C08F 2/00 may be used for forming the Combination Set.

C08F 2/001 . {Multistage polymerisation processes characterised by a change in reactor conditions without deactivating the intermediate polymer (C08F 295/00, C08F 297/00 take precedence)}

C08F 2/002 . {Scale prevention in a polymerisation reactor or its auxiliary parts}

C08F 2/004 . . {by a prior coating on the reactor walls}

C08F 2/005 . . {by addition of a scale inhibitor to the polymerisation medium}

C08F 2/007 . . {Scale prevention in the auxiliary parts}

C08F 2/008 . {cleaning reaction vessels using chemicals (mechanical methods B08B 9/08)}

C08F 2/01 . characterised by special features of the polymerisation apparatus used

C08F 2/02 . Polymerisation in bulk

C08F 2/04 . Polymerisation in solution (C08F 2/32 takes precedence)

C08F 2/06 . . Organic solvent

C08F 2/08 . . . with the aid of dispersing agents for the polymer

C08F 2/10 . . Aqueous solvent

C08F 2/12 . Polymerisation in non-solvents (C08F 2/32 takes precedence)

C08F 2/14 . . Organic medium

C08F 2/16 . . Aqueous medium

C08F 2/18 . . . Suspension polymerisation

C08F 2/20 . . . with the aid of macromolecular dispersing agents

C08F 2/22 . . . Emulsion polymerisation

C08F 2/24 . . . . with the aid of emulsifying agents

C08F 2/26 . . . . . anionic

C08F 2/28 . . . . . cationic

C08F 2/30 . . . . . non-ionic

C08F 2/32 . Polymerisation in water-in-oil emulsions

C08F 2/34 . Polymerisation in gaseous state

C08F 2/36 . Polymerisation in solid state

C08F 2/38 . Polymerisation using regulators, e.g. chain terminating agents, {e.g. telomerisation}

C08F 2/40 . . using retarding agents

C08F 2/42 . . using short-stopping agents

C08F 2/44 . Polymerisation in the presence of compounding ingredients, e.g plasticisers, dyestuffs, fillers

C08F 2/46 . Polymerisation initiated by wave energy or particle radiation

C08F 2/48 . . by ultra-violet or visible light

C08F 2/50 . . . with sensitising agents

C08F 2/52 . . by electric discharge, e.g. voltolisation

C08F 2/54 . . by X-rays or electrons

C08F 2/56 . . by ultrasonic vibrations

C08F 2/58 . Polymerisation initiated by direct application of electric current (electrolytic processes, e.g. electrophoresis C25)

C08F 2/60 . Polymerisation by the diene synthesis

C08F 4/00 **Polymerisation catalysts** (catalysts in general B01J)

NOTES

1. Group C08F 4/00 and subgroups can be incomplete according to the following classification rules:
   - if a catalyst is specifically used for only one type of polymer, it is not classified in C08F 4/00;
   - in such a case, the classification symbol of C08F 4/00 providing for the catalyst may be used as a symbol for a C-Set in the groups providing for the polymer, e.g. (C08F 12/04, C08F 4/62)
   - this method of classification is applied only when a note after the group providing for the polymer explicitly indicates which symbols of C08F 4/00 may be used for forming the C-set.
2. When classifying in group C08F 4/00, the type of catalyst can be further indexed by using indexing codes chosen from C08F 2410/00, C08F 2420/00 or their subgroups

C08F 4/005 . {Friedel-Crafts catalysts in general}

NOTE

Where a carrier is considered of particular interest a further classification may be made in group C08F 4/02.

C08F 4/02 . Carriers therefor

C08F 4/022 . . {Magnesium halide as support anhydrous or hydrated or complexed by means of a Lewis base for Ziegler-type catalysts}

C08F 4/025 . . {Metal oxides}

C08F 4/027 . . {Polymers}

C08F 4/04 . Azo-compounds

C08F 4/06 . Metallic compounds other than hydrides and other than metallo-organic compounds; Boron halide or aluminium halide complexes with organic compounds containing oxygen

C08F 4/08 . . of alkali metals

C08F 4/083 . . . {an alkali metal bound to oxygen}

C08F 4/086 . . . {an alkali metal bound to nitrogen, e.g. $LiN(C_2H_5)_2$}

C08F 4/10 . . of alkaline earth metals, zinc, cadmium, mercury, copper or silver

C08F 4/12 . . of boron, aluminium, gallium, indium, thallium or rare earths

C08F 4/14 . . . Boron halides or aluminium halides; Complexes thereof with organic compounds containing oxygen

C08F 4/16 . . of silicon, germanium, tin, lead, titanium, zirconium or hafnium

C08F 4/18 . . . Oxides

C08F 4/20 . . of antimony, bismuth, vanadium, niobium or tantalum

C08F 4/22 . . of chromium, molybdenum or tungsten

C08F 4/24 . . . Oxides

C08F 4/26 . . of manganese, iron group metals or platinum group metals

C08F 4/28 . Oxygen or compounds releasing free oxygen (redox systems C08F 4/40)

C08F 4/30 . . Inorganic compounds

C08F 4/32 . . Organic compounds

C08F 4/34 . . . Per-compounds with one peroxy-radical

C08F 4/36 . . . Per-compounds with more than one peroxy radical

C08F 4/38 . . . Mixtures of peroxy-compounds

C08F 4/40 . Redox systems

C08F 4/42 . Metals; Metal hydrides; Metallo-organic compounds; Use thereof as catalyst precursors

C08F 4/44 . . selected from light metals, zinc, cadmium, mercury, copper, silver, gold, boron, gallium, indium, thallium, rare earths or actinides

C08F 4/46 . . . selected from alkali metals

C08F 4/461 . . . . {Catalysts containing at least two different components covered by the same or by different subgroups of group C08F 4/46, e.g. butyllithium + propylrubidium}

C08F 4/463 . . . . {selected from sodium or potassium (C08F 4/461 takes precedence)}

C08F 4/465 . . . . . {Metalic sodium or potassium}

C08F 4/466 . . . . . {an alkali metal bound to a cyclic carbon}

C08F 4/468 . . . . . {at least two metal atoms in the same molecule}

C08F 4/48 . . . . selected from lithium, rubidium, caesium or francium {(C08F 4/461 takes precedence)}

C08F 4/482 . . . . . {Metallic lithium, rubidium, caesium or francium}

C08F 4/484 . . . . . {an alkali metal bound to a cyclic carbon}

C08F 4/486 . . . . . {at least two metal atoms in the same molecule}

C08F 4/488 . . . . . {at least two lithium atoms in the same molecule}

C08F 4/50 . . . selected from alkaline earth metals, zinc, cadmium, mercury, copper or silver

C08F 4/52 . . . selected from boron, aluminium, gallium, indium, thallium or rare earths (C08F 4/14 takes precedence)

C08F 4/54 . . . together with other compounds thereof

C08F 4/545 . . . . {rare earths being present, e.g. triethylaluminium + neodymium octanoate}

C08F 4/56 . . . . Alkali metals being the only metals present, e.g. Alfin catalysts

C08F 4/565 . . . . . {Lithium being present, e.g. butyllithium + sodiumphenoxide}

C08F 4/58 . . . together with silicon, germanium, tin, lead, antimony, bismuth or compounds thereof

C08F 4/60 . . . together with refractory metals, iron group metals, platinum group metals, manganese, rhenium {technetium} or compounds thereof

NOTES

1. In groups C08F 4/60 to C08F 4/64, the term "component" comprises the transition metal or a compound thereof, pretreated or not { (pretreating per se C08F 4/61, C08F 4/63 and C08F 4/65) }
2. Group C08F 4/60003 takes precedence over groups C08F 4/602 to C08F 4/619

C08F 4/60003 . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/60006 . . . . . {Bidentate ligand (not used)}

C08F 4/6001 . . . . . {Neutral ligand}

C08F 4/60013 . . . . . {NN}

C08F 4/60017 . . . . . {NO}

C08F 4/6002 . . . . . {NS}

C08F 4/60024 . . . . . {OS}

C08F 4/60027 . . . . . {PN}

C08F 4/60031 . . . . . {PO}

C08F 4/60034 . . . . . {PP}

C08F 4/60037 . . . . . {PS}

C08F 4/60041 . . . . . {Monoanionic ligand}

C08F 4/60044 . . . . . {NN}

C08F 4/60048 . . . . . {NO}

C08F 4/60051 . . . . . {NS}
C08F 4/60055 . . . . . {ON}
C08F 4/60058 . . . . . {OO}
C08F 4/60062 . . . . . {PN}
C08F 4/60065 . . . . . {PO}
C08F 4/60068 . . . . . {Dianionic ligand}
C08F 4/60072 . . . . . {NN}
C08F 4/60075 . . . . . {NO}
C08F 4/60079 . . . . . {OO}
C08F 4/60082 . . . . . {Tridentate ligand (not used)}
C08F 4/60086 . . . . . {Neutral ligand}
C08F 4/60089 . . . . . {NNN}
C08F 4/60093 . . . . . {NNO}
C08F 4/60096 . . . . . {NNS}
C08F 4/60099 . . . . . {NSN}
C08F 4/60103 . . . . . {PNN}
C08F 4/60106 . . . . . {PNP}
C08F 4/6011 . . . . . {Monoanionic ligand}
C08F 4/60113 . . . . . {NNN}
C08F 4/60117 . . . . . {NNO}
C08F 4/6012 . . . . . {ONN}
C08F 4/60124 . . . . . {ONO}
C08F 4/60127 . . . . . {ON*O}
C08F 4/60131 . . . . . {PNO}
C08F 4/60134 . . . . . {SNN}
C08F 4/60137 . . . . . {SNO}
C08F 4/60141 . . . . . {Dianionic ligand}
C08F 4/60144 . . . . . {NN(R)C}
C08F 4/60148 . . . . . {NN(R)N}
C08F 4/60151 . . . . . {NNO}
C08F 4/60155 . . . . . {ON(R)C}
C08F 4/60158 . . . . . {ONO}
C08F 4/60162 . . . . . {O*O*P}
C08F 4/60165 . . . . . {OSO}
C08F 4/60168 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/60172 . . . . . {Neutral ligand}
C08F 4/60175 . . . . . {ONNO}
C08F 4/60179 . . . . . {PNNN}
C08F 4/60182 . . . . . {Monoanionic ligand}
C08F 4/60186 . . . . . {Dianionic ligand}

C08F 4/60189 . . . . . {ONNO}

C08F 4/60193 . . . . . {OOOO}

C08F 4/60196 . . . . . {OSSO}

C08F 4/602 . . . . Component covered by group C08F 4/60 with an organo-aluminium compound {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/6022 . . . . . {Component of C08F 4/60 containing at least two different metals}

C08F 4/6024 . . . . . {containing magnesium}

C08F 4/6026 . . . . . {containing aluminium}

C08F 4/6028 . . . . . {with an alumoxane, i.e. a compound containing an -Al-O-Al-group}

C08F 4/603 . . . . Component covered by group C08F 4/60 with a metal or compound covered by group C08F 4/44 other than an organo-aluminium compound {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/6032 . . . . . {Component of C08F 4/60 containing at least two different metals}

C08F 4/6035 . . . . . {containing magnesium}

C08F 4/6037 . . . . . {containing aluminium}

C08F 4/605 . . . . Component covered by group C08F 4/60 with a metal or compound covered by group C08F 4/44, not provided for in a single group of groups C08F 4/602 or C08F 4/603 {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/6052 . . . . . {Component of C08F 4/60 containing at least two different metals}

C08F 4/6055 . . . . . {containing magnesium}

C08F 4/6057 . . . . . {containing aluminium}

C08F 4/606 . . . . Catalyst comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by groups C08F 4/60 {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/6065 . . . . . {containing silicium}

C08F 4/607 . . . . Catalyst containing a specific non-metal or metal-free compound {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/608 . . . . . inorganic

C08F 4/609 . . . . . organic

C08F 4/6091 . . . . . {hydrocarbon}

C08F 4/6092 . . . . . {containing aliphatic unsaturation}

C08F 4/6093 . . . . . {containing halogen}

C08F 4/6094 . . . . . {containing oxygen}

C08F 4/6095 . . . . . {containing nitrogen}

C08F 4/6096 . . . . . {containing sulfur}

C08F 4/6097 . . . . . {containing phosphorus}

C08F 4/6098 . . . . . {containing another heteroatom}

C08F 4/61 . . . . Pretreating the metal or compound covered by group C08F 4/60 before the final contacting with the metal or compound covered by group C08F 4/44 {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/611 . . . . . Pretreating with non-metals or metal-free compounds

C08F 4/612 . . . . . Pretreating with metals or metal-containing compounds

C08F 4/613 . . . . . with metals covered by group C08F 4/60 or compounds thereof

C08F 4/614 . . . . . with magnesium or compounds thereof

C08F 4/6141 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/6143 . . . . . {halides of magnesium}

C08F 4/6145 . . . . . {and metals of group C08F 4/60 or compounds thereof}

C08F 4/6146 . . . . . {organo-magnesium compounds}

C08F 4/6148 . . . . . {magnesium or compounds thereof not provided for in C08F 4/6143 or C08F 4/6146}

C08F 4/615 . . . . . with aluminium or compounds thereof

C08F 4/6152 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/6155 . . . . . {and magnesium or compounds thereof}

C08F 4/6157 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/616 . . . . . with silicon or compounds thereof

C08F 4/6162 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/6165 . . . . . {and magnesium or compounds thereof}

C08F 4/6167 . . . . . {and aluminium or compounds thereof}

C08F 4/617 . . . . . with metals or metal-containing compounds, not provided for in groups C08F 4/613 to C08F 4/616

C08F 4/6172 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/6174 . . . . . {and magnesium or compounds thereof}

C08F 4/6176 . . . . . {and aluminium or compounds thereof}

C08F 4/6178 . . . . . {and silicon or compounds thereof}

C08F 4/618 . . . . . with metals or metal-containing compounds, provided for in at least two of the groups C08F 4/613 to C08F 4/617

C08F 4/6181 . . . . . {and metals of C08F 4/60 or compounds thereof}

C08F 4/6183 . . . . . {and magnesium or compounds thereof}

C08F 4/6185 . . . . . {and aluminium or compounds thereof}

C08F 4/6186 . . . . . {and silicon or compounds thereof}

C08F 4/6188 . . . . . {and metals or metal-containing compounds of C08F 4/617}

C08F 4/619 . . . . Component covered by group C08F 4/60 containing a transition metal-carbon bond {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/61904 . . . . . {in combination with another component of C08F 4/60}

C08F 4/61908 . . . . . {in combination with an ionising compound other than alumoxane, e.g. (C6F5)4B-X+}

C08F 4/61912 . . . . . {in combination with an organoaluminium compound}

C08F 4/61916 . . . . . {supported on a carrier, e.g. silica, $MgCl_2$, polymer}

C08F 4/6192 . . . . . containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring

C08F 4/61922 . . . . . {containing at least two cyclopentadienyl rings, fused or not}

C08F 4/61925 . . . . . {two cyclopentadienyl rings being mutually non-bridged}

C08F 4/61927 . . . . . {two cyclopentadienyl rings being mutually bridged}

C08F 4/62 . . . . Refractory metals or compounds thereof

NOTE

Group C08F 4/62003 takes precedence over groups C08F 4/622 to C08F 4/639

C08F 4/62003 . . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/62006 . . . . . {Bidentate ligand (not used)}

C08F 4/6201 . . . . . {Neutral ligand}

C08F 4/62013 . . . . . {NN}

C08F 4/62017 . . . . . {NO}

C08F 4/6202 . . . . . {NS}

C08F 4/62024 . . . . . {OS}

C08F 4/62027 . . . . . {PN}

C08F 4/62031 . . . . . {PO}

C08F 4/62034 . . . . . {PP}

C08F 4/62037 . . . . . {PS}

C08F 4/62041 . . . . . {Monoanionic ligand}

C08F 4/62044 . . . . . {NN}

C08F 4/62048 . . . . . {NO}

C08F 4/62051 . . . . . {NS}

C08F 4/62055 . . . . . {ON}

C08F 4/62058 . . . . . {OO}

C08F 4/62062 . . . . . {PN}

C08F 4/62065 . . . . . {PO}

C08F 4/62068 . . . . . {Dianionic ligand}

C08F 4/62072 . . . . . {NN}

C08F 4/62075 . . . . . {NO}

C08F 4/62079 . . . . . {OO}

C08F 4/62082 . . . . . {Tridentate ligand (not used)}

C08F 4/62086 . . . . . {Neutral ligand}

C08F 4/62089 . . . . . {NNN}

C08F 4/62093 . . . . . {NNO}

C08F 4/62096 . . . . . {NNS}

C08F 4/62099 . . . . . {NSN}

C08F 4/62103 . . . . . {PNN}
C08F 4/62106 . . . . . {PNP}
C08F 4/6211 . . . . . {Monoanionic ligand}
C08F 4/62113 . . . . . {NNN}
C08F 4/62117 . . . . . {NNO}
C08F 4/6212 . . . . . {ONN}
C08F 4/62124 . . . . . {ONO}
C08F 4/62127 . . . . . {ON*O}
C08F 4/62131 . . . . . {PNO}
C08F 4/62134 . . . . . {SNN}
C08F 4/62137 . . . . . {SNO}
C08F 4/62141 . . . . . {Dianionic ligand}
C08F 4/62144 . . . . . {NN(R)C}
C08F 4/62148 . . . . . {NN(R)N}
C08F 4/62151 . . . . . {NNO}
C08F 4/62155 . . . . . {ON(R)C}
C08F 4/62158 . . . . . {ONO}
C08F 4/62162 . . . . . {O*O*P}
C08F 4/62165 . . . . . {OSO}
C08F 4/62168 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/62172 . . . . . {Neutral ligand}
C08F 4/62175 . . . . . {ONNO}
C08F 4/62179 . . . . . {PNNN}
C08F 4/62182 . . . . . {Monoanionic ligand}
C08F 4/62186 . . . . . {Dianionic ligand}
C08F 4/62189 . . . . . {ONNO}
C08F 4/62193 . . . . . {OOOO}
C08F 4/62196 . . . . . {OSSO}
C08F 4/622 . . . . . Component covered by group C08F 4/62 with an organo-aluminium compound {(C08F 4/62003 - C08F 4/62196 take precedence)}
C08F 4/6222 . . . . . {Component of C08F 4/62 containing at least two different metals}
C08F 4/6224 . . . . . {containing magnesium}
C08F 4/6226 . . . . . {containing aluminium}
C08F 4/6228 . . . . . {with an aluminoxane, i.e. a compound containing an Al-O-Al-group}
C08F 4/623 . . . . . Component covered by group C08F 4/62 with a metal or compound covered by group C08F 4/44 other than an organo-aluminium compound {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/6232 . . . . . {Component of C08F 4/62 containing at least two different metals}

C08F 4/6235 . . . . . {containing magnesium}

C08F 4/6237 . . . . . {containing aluminium}

C08F 4/625 . . . . . Component covered by group C08F 4/62 with a metal or compound covered by group C08F 4/44, not provided for in a single group of groups C08F 4/622 or C08F 4/623 {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/6252 . . . . . {Component of C08F 4/62 containing at least two different metals}

C08F 4/6255 . . . . . {containing magnesium}

C08F 4/6257 . . . . . {containing aluminium}

C08F 4/626 . . . . . Catalysts comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by group C08F 4/62 {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/6265 . . . . . {containing silicium}

C08F 4/627 . . . . . Catalysts containing a specific non-metal or metal-free compound {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/628 . . . . . inorganic

C08F 4/629 . . . . . organic

C08F 4/6291 . . . . . {hydrocarbon}

C08F 4/6292 . . . . . {containing aliphatic unsaturation}

C08F 4/6293 . . . . . {containing halogen}

C08F 4/6294 . . . . . {containing oxygen}

C08F 4/6295 . . . . . {containing nitrogen}

C08F 4/6296 . . . . . {containing sulfur}

C08F 4/6297 . . . . . {containing phosphorus}

C08F 4/6298 . . . . . {containing another heteroatom}

C08F 4/63 . . . . . Pretreating the metal or compound covered by group C08F 4/62 before the final contacting with the metal or compound covered by group C08F 4/44 {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/631 . . . . . Pretreating with non-metals or metal-free compounds

C08F 4/632 . . . . . Pretreating with metals or metal-containing compounds

C08F 4/633 . . . . . with metals covered by group C08F 4/62 or compounds thereof

C08F 4/634 . . . . . with magnesium or compounds thereof

C08F 4/6341 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/6343 . . . . . {halides of magnesium}

C08F 4/6345 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/6346 . . . . . {organo-magnesium compounds}

C08F 4/6348 . . . . . {magnesium or compounds thereof not provided for in C08F 4/6345 or C08F 4/6346}

C08F 4/635 . . . . . with aluminium or compounds thereof

C08F 4/6352 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/6355 . . . . . {and magnesium or compounds thereof}

C08F 4/6357 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/636 . . . . . with silicon or compounds thereof

C08F 4/6362 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/6365 . . . . . {and magnesium or compounds thereof}

C08F 4/6367 . . . . . {and aluminium or compounds thereof}

C08F 4/637 . . . . . with metals or metal-containing compounds, not provided for in groups C08F 4/633 to C08F 4/636

C08F 4/6372 . . . . . {and metals of C08F 4/62 or compounds thereof}

C08F 4/6374 . . . . . {and magnesium or compounds thereof}

C08F 4/6376 . . . . . {and aluminium or compounds thereof}

C08F 4/6378 . . . . . {and silicon or compounds thereof}

C08F 4/638 . . . . . with metals or metal-containing compounds, not provided for in a single group of groups C08F 4/633 to C08F 4/637

C08F 4/6381 . . . . . {and metals or metal-containing compounds of C08F 4/62}

C08F 4/6383 . . . . . {and magnesium or compounds thereof}

C08F 4/6385 . . . . . {and aluminium or compounds thereof}

C08F 4/6386 . . . . . {and silicon or compounds thereof}

C08F 4/6388 . . . . . {and metals or metal-containing compounds of C08F 4/637}

C08F 4/639 . . . . . Component covered by group C08F 4/62 containing a transition metal-carbon bond {(C08F 4/62003 - C08F 4/62196 take precedence)}

C08F 4/63904 . . . . . {in combination with another component of C08F 4/62}

C08F 4/63908 . . . . . {in combination with an ionising compound other than alumoxane, e.g. (C6F5)4B-X+}

C08F 4/63912 . . . . . {in combination with an organoaluminium compound}

C08F 4/63916 . . . . . {supported on a carrier, e.g. silica, $MgCl_2$, polymer}

C08F 4/6392 . . . . . containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring

C08F 4/63922 . . . . . {containing at least two cyclopentadienyl rings, fused or not}

C08F 4/63925 . . . . . {two cyclopentadienyl rings being mutually non-bridged}

C08F 4/63927 . . . . . {two cyclopentadienyl rings being mutually bridged}

C08F 4/64 . . . . . Titanium, zirconium, hafnium or compounds thereof

NOTE

Group C08F 4/64003 takes precedence over groups C08F 4/642 to C08F 4/659

C08F 4/64003 . . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/64006 . . . . . {Bidentate ligand (not used)}
C08F 4/6401 . . . . . {Neutral ligand}
C08F 4/64013 . . . . . {NN}
C08F 4/64017 . . . . . {NO}
C08F 4/6402 . . . . . {NS}
C08F 4/64024 . . . . . {OS}
C08F 4/64027 . . . . . {PN}
C08F 4/64031 . . . . . {PO}
C08F 4/64034 . . . . . {PP}
C08F 4/64037 . . . . . {PS}
C08F 4/64041 . . . . . {Monoanionic ligand}
C08F 4/64044 . . . . . {NN}
C08F 4/64048 . . . . . {NO}
C08F 4/64051 . . . . . {NS}
C08F 4/64055 . . . . . {ON}
C08F 4/64058 . . . . . {OO}
C08F 4/64062 . . . . . {PN}
C08F 4/64065 . . . . . {PO}
C08F 4/64068 . . . . . {Dianionic ligand}
C08F 4/64072 . . . . . {NN}
C08F 4/64075 . . . . . {NO}
C08F 4/64079 . . . . . {OO}
C08F 4/64082 . . . . . {Tridentate ligand (not used)}
C08F 4/64086 . . . . . {Neutral ligand}
C08F 4/64089 . . . . . {NNN}
C08F 4/64093 . . . . . {NNO}
C08F 4/64096 . . . . . {NNS}
C08F 4/64099 . . . . . {NSN}
C08F 4/64103 . . . . . {PNN}
C08F 4/64106 . . . . . {PNP}
C08F 4/6411 . . . . . {Monoanionic ligand}
C08F 4/64113 . . . . . {NNN}

C08F 4/64117 . . . . . {NNO}
C08F 4/6412 . . . . . {ONN}
C08F 4/64124 . . . . . {ONO}
C08F 4/64127 . . . . . {ON*O}
C08F 4/64131 . . . . . {PNO}
C08F 4/64134 . . . . . {SNN}
C08F 4/64137 . . . . . {SNO}
C08F 4/64141 . . . . . {Dianionic ligand}
C08F 4/64144 . . . . . {NN(R)C}
C08F 4/64148 . . . . . {NN(R)N}
C08F 4/64151 . . . . . {NNO}
C08F 4/64155 . . . . . {ON(R)C}
C08F 4/64158 . . . . . {ONO}
C08F 4/64162 . . . . . {O*O*P}
C08F 4/64165 . . . . . {OSO}
C08F 4/64168 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/64172 . . . . . {Neutral ligand}
C08F 4/64175 . . . . . {ONNO}
C08F 4/64179 . . . . . {PNNN}
C08F 4/64182 . . . . . {Monoanionic ligand}
C08F 4/64186 . . . . . {Dianionic ligand}
C08F 4/64189 . . . . . {ONNO}
C08F 4/64193 . . . . . {OOOO}
C08F 4/64196 . . . . . {OSSO}
C08F 4/642 . . . . . Component covered by group C08F 4/64 with an organo-aluminium compound {(C08F 4/64003 - C08F 4/64196 take precedence)}
C08F 4/6421 . . . . . {Titanium tetrahalides with organo-aluminium compounds}
C08F 4/6423 . . . . . {Component of C08F 4/64 containing at least two different metals}
C08F 4/6425 . . . . . {containing magnesium}
C08F 4/6426 . . . . . {containing aluminium}
C08F 4/6428 . . . . . {with an aluminoxane, i.e. a compound containing an Al-O-Al- group}
C08F 4/643 . . . . . Component coverd by group C08F 4/64 with a metal or compound covered by group C08F 4/44 other than an organo-aluminium compound {(C08F 4/64003 - C08F 4/64196 take precedence)}
C08F 4/6432 . . . . . {Component of C08F 4/64 containing at least two different metals}
C08F 4/6435 . . . . . {containing magnesium}
C08F 4/6437 . . . . . {containing aluminium}

C08F 4/645 . . . . . Component covered by group C08F 4/64 with a metal or compound covered by group C08F 4/44, not provided for in a single group of groups C08F 4/642 to C08F 4/643 {(C08F 4/60003 - C08F 4/60196 take precedence)}

C08F 4/6452 . . . . . {Component of C08F 4/64 containing at least two different metals}

C08F 4/6455 . . . . . {containing magnesium}

C08F 4/6457 . . . . . {containing aluminium}

C08F 4/646 . . . . . Catalysts comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by group C08F 4/64 {(C08F 4/64003 - C08F 4/64196 take precedence)}

C08F 4/6465 . . . . . {containing silicium}

C08F 4/647 . . . . . Catalysts containing a specific non-metal or metal-free compound {(C08F 4/64003 - C08F 4/64196 take precedence)}

C08F 4/648 . . . . . inorganic

C08F 4/649 . . . . . organic

C08F 4/6491 . . . . . {hydrocarbon}

C08F 4/6492 . . . . . {containing aliphatic unsaturation}

C08F 4/6493 . . . . . {containing halogen}

C08F 4/6494 . . . . . {containing oxygen}

C08F 4/6495 . . . . . {containing nitrogen}

C08F 4/6496 . . . . . {containing sulfur}

C08F 4/6497 . . . . . {containing phosphorus}

C08F 4/6498 . . . . . {containing another heteroatom}

C08F 4/65 . . . . . Pretreating the metal or compound covered by group C08F 4/64 before the final contacting with the metal or compound covered by group C08F 4/44 {(C08F 4/64003 - C08F 4/64196 take precedence)}

C08F 4/651 . . . . . Pretreating with non-metals or metal-free compounds

C08F 4/652 . . . . . Pretreating with metals or metal-containing compounds

C08F 4/653 . . . . . with metals of C08F 4/64 or compounds thereof

C08F 4/654 . . . . . with magnesium or compounds thereof

C08F 4/6541 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6543 . . . . . {halides of magnesium}

C08F 4/6545 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6546 . . . . . {organo-magnesium compounds}

C08F 4/6548 . . . . . {magnesium or compounds thereof, not provided for in C08F 4/6543 or C08F 4/6546}

C08F 4/655 . . . . . with aluminium or compounds thereof

C08F 4/6552 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6555 . . . . . {and magnesium or compounds thereof}

C08F 4/6557 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/656 . . . . . with silicon or compounds thereof

C08F 4/6562 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6565 . . . . . {and magnesium or compounds thereof}

C08F 4/6567 . . . . . {and aluminium or compounds thereof}

C08F 4/657 . . . . . with metals or metal-containing compounds, not provided for in groups C08F 4/653 to C08F 4/656

C08F 4/6572 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6574 . . . . . {and magnesium or compounds thereof}

C08F 4/6576 . . . . . {and aluminium or compounds thereof}

C08F 4/6578 . . . . . {and silicon or compounds thereof}

C08F 4/658 . . . . . with metals or metal-containing compounds, not provided for in a single group of groups C08F 4/653 to C08F 4/657

C08F 4/6581 . . . . . {and metals of C08F 4/64 or compounds thereof}

C08F 4/6583 . . . . . {and magnesium or compounds thereof}

C08F 4/6585 . . . . . {and aluminium or compounds thereof}

C08F 4/6586 . . . . . {and silicon or compounds thereof}

C08F 4/6588 . . . . . {and metals or metal-containing compounds of C08F 4/657}

C08F 4/659 . . . . . Component covered by group C08F 4/64 containing a transition metal-carbon bond {(C08F 4/64003 - C08F 4/64196 take precedence)}

C08F 4/65904 . . . . . {in combination with another component of C08F 4/64}

C08F 4/65908 . . . . . {in combination with an ionising compound other than alumoxane, e.g. (C6F5)4B-X+}

C08F 4/65912 . . . . . {in combination with an organoaluminium compound}

C08F 4/65916 . . . . . {supported on a carrier, e.g. silica, $MgCl_2$, polymer}

C08F 4/6592 . . . . . containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring

C08F 4/65922 . . . . . {containing at least two cyclopentadienyl rings, fused or not}

C08F 4/65925 . . . . . {two cyclopentadienyl rings being mutually non-bridged}

C08F 4/65927 . . . . . {two cyclopentadienyl rings being mutually bridged}

C08F 4/68 . . . . . Vanadium, niobium, tantalum or compounds thereof

C08F 4/68008 . . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/68017 . . . . . {Bidentate ligand (not used)}

C08F 4/68025 . . . . . {Neutral ligand}
C08F 4/68034 . . . . . {NN}
C08F 4/68043 . . . . . {NO}
C08F 4/68051 . . . . . {NS}
C08F 4/6806 . . . . . {OS}
C08F 4/68068 . . . . . {PN}
C08F 4/68077 . . . . . {PO}
C08F 4/68086 . . . . . {PP}
C08F 4/68094 . . . . . {PS}
C08F 4/68103 . . . . . {Monoanionic ligand}
C08F 4/68112 . . . . . {NN}
C08F 4/6812 . . . . . {NO}
C08F 4/68129 . . . . . {NS}
C08F 4/68137 . . . . . {ON}
C08F 4/68146 . . . . . {OO}
C08F 4/68155 . . . . . {PN}
C08F 4/68163 . . . . . {PO}
C08F 4/68172 . . . . . {Dianionic ligand}
C08F 4/68181 . . . . . {NN}
C08F 4/68189 . . . . . {NO}
C08F 4/68198 . . . . . {OO}
C08F 4/68206 . . . . . {Tridentate ligand (not used)}
C08F 4/68215 . . . . . {Neutral ligand}
C08F 4/68224 . . . . . {NNN}
C08F 4/68232 . . . . . {NNO}
C08F 4/68241 . . . . . {NNS}
C08F 4/6825 . . . . . {NSN}
C08F 4/68258 . . . . . {PNN}
C08F 4/68267 . . . . . {PNP}
C08F 4/68275 . . . . . {Monoanionic ligand}
C08F 4/68284 . . . . . {NNN}
C08F 4/68293 . . . . . {NNO}
C08F 4/68301 . . . . . {ONN}
C08F 4/6831 . . . . . {ONO}
C08F 4/68318 . . . . . {ON*O}
C08F 4/68327 . . . . . {PNO}
C08F 4/68336 . . . . . {SNN}
C08F 4/68344 . . . . . {SNO}
C08F 4/68353 . . . . . {Dianionic ligand}
C08F 4/68362 . . . . . {NN(R)C}

C08F 4/6837 . . . . . {NN(R)N}
C08F 4/68379 . . . . . {NNO}
C08F 4/68387 . . . . . {ON(R)C}
C08F 4/68396 . . . . . {ONO}
C08F 4/68405 . . . . . {O*O*P}
C08F 4/68413 . . . . . {OSO}
C08F 4/68422 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/68431 . . . . . {Neutral ligand}
C08F 4/68439 . . . . . {ONNO}
C08F 4/68448 . . . . . {PNNN}
C08F 4/68456 . . . . . {Monoanionic ligand}
C08F 4/68465 . . . . . {Dianionic ligand}
C08F 4/68474 . . . . . {ONNO}
C08F 4/68482 . . . . . {OOOO}
C08F 4/68491 . . . . . {OSSO}
C08F 4/685 . . . . . Vanadium or compounds thereof in combination with titanium or compounds thereof
C08F 4/69 . . . . . Chromium, molybdenum, tungsten or compounds thereof
C08F 4/69008 . . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/69017 . . . . . {Bidentate ligand (not used)}
C08F 4/69025 . . . . . {Neutral ligand}
C08F 4/69034 . . . . . {NN}
C08F 4/69043 . . . . . {NO}
C08F 4/69051 . . . . . {NS}
C08F 4/6906 . . . . . {OS}
C08F 4/69068 . . . . . {PN}
C08F 4/69077 . . . . . {PO}
C08F 4/69086 . . . . . {PP}
C08F 4/69094 . . . . . {PS}
C08F 4/69103 . . . . . {Monoanionic ligand}
C08F 4/69112 . . . . . {NN}
C08F 4/6912 . . . . . {NO}
C08F 4/69129 . . . . . {NS}

C08F 4/69137 . . . . . {ON}
C08F 4/69146 . . . . . {OO}
C08F 4/69155 . . . . . {PN}
C08F 4/69163 . . . . . {PO}
C08F 4/69172 . . . . . {Dianionic ligand}
C08F 4/69181 . . . . . {NN}
C08F 4/69189 . . . . . {NO}
C08F 4/69198 . . . . . {OO}
C08F 4/69206 . . . . . {Tridentate ligand (not used)}
C08F 4/69215 . . . . . {Neutral ligand}
C08F 4/69224 . . . . . {NNN}
C08F 4/69232 . . . . . {NNO}
C08F 4/69241 . . . . . {NNS}
C08F 4/6925 . . . . . {NSN}
C08F 4/69258 . . . . . {PNN}
C08F 4/69267 . . . . . {PNP}
C08F 4/69275 . . . . . {Monoanionic ligand}
C08F 4/69284 . . . . . {NNN}
C08F 4/69293 . . . . . {NNO}
C08F 4/69301 . . . . . {ONN}
C08F 4/6931 . . . . . {ONO}
C08F 4/69318 . . . . . {ON*O}
C08F 4/69327 . . . . . {PNO}
C08F 4/69336 . . . . . {SNN}
C08F 4/69344 . . . . . {SNO}
C08F 4/69353 . . . . . {Dianionic ligand}
C08F 4/69362 . . . . . {NN(R)C}
C08F 4/6937 . . . . . {NN(R)N}
C08F 4/69379 . . . . . {NNO}
C08F 4/69387 . . . . . {ON(R)C}
C08F 4/69396 . . . . . {ONO}
C08F 4/69405 . . . . . {O*O*P}
C08F 4/69413 . . . . . {OSO}
C08F 4/69422 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/69431 . . . . . {Neutral ligand}
C08F 4/69439 . . . . . {ONNO}
C08F 4/69448 . . . . . {PNNN}
C08F 4/69456 . . . . . {Monoanionic ligand}
C08F 4/69465 . . . . . {Dianionic ligand}
C08F 4/69474 . . . . . {ONNO}

C08F 4/69482 . . . . . {OOOO}

C08F 4/69491 . . . . . {OSSO}

C08F 4/695 . . . . Manganese, technetium, rhenium or compounds thereof

C08F 4/70 . . . . Iron group metals, platinum group metals or compounds thereof

C08F 4/7001 . . . . . {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond} (not used)

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

C08F 4/7003 . . . . . {Bidentate ligand (not used)}

C08F 4/7004 . . . . . {Neutral ligand}

C08F 4/7006 . . . . . {NN}

C08F 4/7008 . . . . . {NO}

C08F 4/7009 . . . . . {NS}

C08F 4/7011 . . . . . {OS}

C08F 4/7013 . . . . . {PN}

C08F 4/7014 . . . . . {PO}

C08F 4/7016 . . . . . {PP}

C08F 4/7018 . . . . . {PS}

C08F 4/7019 . . . . . {Monoanionic ligand}

C08F 4/7021 . . . . . {NN}

C08F 4/7022 . . . . . {NO}

C08F 4/7024 . . . . . {NS}

C08F 4/7026 . . . . . {ON}

C08F 4/7027 . . . . . {OO}

C08F 4/7029 . . . . . {PN}

C08F 4/7031 . . . . . {PO}

C08F 4/7032 . . . . . {Dianionic ligand}

C08F 4/7034 . . . . . {NN}

C08F 4/7036 . . . . . {NO}

C08F 4/7037 . . . . . {OO}

C08F 4/7039 . . . . . {Tridentate ligand (not used)}

C08F 4/704 . . . . . {Neutral ligand}

C08F 4/7042 . . . . . {NNN}

C08F 4/7044 . . . . . {NNO}

C08F 4/7045 . . . . . {NNS}

C08F 4/7047 . . . . . {NSN}

C08F 4/7049 . . . . . {PNN}

C08F 4/705 . . . . . {PNP}
C08F 4/7052 . . . . . {Monoanionic ligand}
C08F 4/7054 . . . . . {NNN}
C08F 4/7055 . . . . . {NNO}
C08F 4/7057 . . . . . {ONN}
C08F 4/7059 . . . . . {ONO}
C08F 4/706 . . . . . {ON*O}
C08F 4/7062 . . . . . {PNO}
C08F 4/7063 . . . . . {SNN}
C08F 4/7065 . . . . . {SNO}
C08F 4/7067 . . . . . {Dianionic ligand}
C08F 4/7068 . . . . . {NN(R)C}
C08F 4/707 . . . . . {NN(R)N}
C08F 4/7072 . . . . . {NNO}
C08F 4/7073 . . . . . {ON(R)C}
C08F 4/7075 . . . . . {ONO}
C08F 4/7077 . . . . . {O*O*P}
C08F 4/7078 . . . . . {OSO}
C08F 4/708 . . . . . {Tetra- or multi-dentate ligand (not used)}
C08F 4/7081 . . . . . {Neutral ligand}
C08F 4/7083 . . . . . {ONNO}
C08F 4/7085 . . . . . {PNNN}
C08F 4/7086 . . . . . {Monoanionic ligand}
C08F 4/7088 . . . . . {Dianionic ligand}
C08F 4/709 . . . . . {ONNO}
C08F 4/7091 . . . . . {OOOO}
C08F 4/7093 . . . . . {OSSO}
C08F 4/7095 . . . . . {Cobalt, nickel or compounds thereof (C08F 4/7001 to C08F 4/7093 take precedence)}
C08F 4/7096 . . . . . {Cobalt or compounds thereof}
C08F 4/7098 . . . . . {Nickel or compounds thereof}
C08F 4/72 . . selected from metals not provided for in group C08F 4/44 (C08F 4/54 to C08F 4/70 take precedence)
C08F 4/74 . . . selected from refractory metals
C08F 4/76 . . . . selected from titanium, zirconium, hafnium, vanadium, niobium or tantalum
C08F 4/78 . . . . selected from chromium, molybdenum or tungsten
C08F 4/80 . . . selected from iron group metals or platinum group metals
C08F 4/82 . . . . Pi-Allyl complexes

C08F 6/00 **Post-polymerisation treatments** (C08F 8/00 takes precedence; of conjugated diene rubbers C08C)

NOTES

1. In groups C08F 6/00 to C08F 6/28 the treatment of specific polymers is indicated using the subdivision of C08L 23/00 to C08L 57/12 in the form of C-Sets. Example: (C08F 6/12, C08L 25/06)
2. Groups C08F 6/001, C08F 6/006, C08F 6/008, C08F 6/02, C08F 6/04 take precedence over the other groups.

C08F 6/001 . {Removal of residual monomers by physical means}

C08F 6/003 . . {from polymer solutions, suspensions, dispersions or emulsions without recovery of the polymer therefrom}

C08F 6/005 . . {from solid polymers}

C08F 6/006 . {Removal of residual monomers by chemical reaction, e.g. scavenging}

C08F 6/008 . {Treatment of solid polymer wetted by water or organic solvents, e.g. coagulum, filter cakes}

C08F 6/02 . Neutralisation of the polymerisation mass, e.g. killing the catalyst (short-stopping C08F 2/42) {also removal of catalyst residues}

C08F 6/04 . Fractionation

C08F 6/06 . Treatment of polymer solutions

C08F 6/08 . . Removal of catalyst residues {(not used, see C08F 6/02)}

C08F 6/10 . . Removal of volatile materials, e.g. monomers, solvents

C08F 6/12 . . Separation of polymers from solutions

C08F 6/14 . Treatment of polymer emulsions

C08F 6/16 . . Purification

C08F 6/18 . . Increasing the size of the dispersed particles

C08F 6/20 . . Concentration

C08F 6/22 . . Coagulation

C08F 6/24 . Treatment of polymer suspensions

C08F 6/26 . Treatment of polymers prepared in bulk {also solid polymers or polymer melts}

C08F 6/28 . . Purification

C08F 8/00 **Chemical modification by after-treatment** (graft polymers, block polymers, cross-linking with unsaturated monomers or with polymers C08F 251/00 to C08F 299/00; of conjugated diene rubbers C08C; cross-linking in general C08J)

NOTE

Classification is given in the form of C-Sets when sufficient information is provided concerning the polymer to be modified. In groups C08F 8/00 to C08F 8/50, the chemical modification of specific polymers is indicated using the subdivisions of C08F 10/00 to C08F 34/04, C08F 38/00 to C08F 38/04, C08F 110/00 to C08F 134/04, C08F 138/00 to C08F 138/04, C08F 210/00 to C08F 234/04, C08F 238/00 to C08F 299/08. Example: (C08F 8/44, C08F 16/06) Otherwise, only the C08F 8/00 - C08F 8/50 symbol(s) is (are) given.

C08F 8/02 . Alkylation

C08F 8/04 . Reduction, e.g. hydrogenation

C08F 8/06 . Oxidation

C08F 8/08 . Epoxidation

C08F 8/10 . Acylation

C08F 8/12 . Hydrolysis

C08F 8/14 . Esterification

C08F 8/16 . . Lactonisation

C08F 8/18 . Introducing halogen atoms or halogen-containing groups

C08F 8/20 . . Halogenation

C08F 8/22 . . . by reaction with free halogens

C08F 8/24 . . Haloalkylation

C08F 8/26 . Removing halogen atoms or halogen-containing groups from the molecule

C08F 8/28 . Condensation with aldehydes or ketones

C08F 8/30 . Introducing nitrogen atoms or nitrogen-containing groups (polymeric products of isocyanates or thiocyanates C08G)

C08F 8/32 . . by reaction with amines

C08F 8/34 . Introducing sulfur atoms or sulfur-containing groups

C08F 8/36 . . Sulfonation; Sulfation

C08F 8/38 . . Sulfohalogenation

C08F 8/40 . Introducing phosphorus atoms or phosphorus-containing groups

C08F 8/42 . Introducing metal atoms or metal-containing groups

C08F 8/44 . Preparation of metal salts or ammonium salts

C08F 8/46 . Reaction with unsaturated dicarboxylic acids or anhydrides thereof, e.g. maleinisation

C08F 8/48 . Isomerisation; Cyclisation

NOTE

When the cyclisation is an epoxidation, C08F 8/08 takes precedence.
When the cyclisation is a lactonisation, C08F 8/16 takes precedence.

C08F 8/50 . Partial depolymerisation

Homopolymers and copolymers

C08F 10/00 Homopolymers and copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond

NOTE

In groups C08F 10/00 to C08F 10/14 the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of C08F 2/00 to C08F 2/58 or of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 10/02, C08F 4/651)

C08F 10/02 . Ethene

C08F 10/04 . Monomers containing three or four carbon atoms

C08F 10/06 . . Propene

C08F 10/08 . . Butenes

C08F 10/10 . . . Isobutene

C08F 10/14 . Monomers containing five or more carbon atoms

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**

NOTES

1. Until March 2012, in groups C08F 12/04 to C08F 12/08 the method of polymerisation might be indicated using the subdivision of C08F 2/02 to C08F 2/06, C08F 2/16 to C08F 2/30, C08F 2/34 or C08F 2/38 to C08F 2/46 in the form of C-sets; the nature of the catalyst might be indicated using the subdivision of C08F 4/00 to C08F 4/60, C08F 4/62, C08F 4/64 or C08F 4/68 to C08F 4/82 in the form of C-Sets. Example: (C08F 12/08, C08F 2/20)
2. From April 2012 on, in groups C08F 12/00 to C08F 12/36 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/60 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 12/08, C08F 2/56)

C08F 12/02 . Monomers containing only one unsaturated aliphatic radical

C08F 12/04 . . containing one ring

C08F 12/06 . . . Hydrocarbons

C08F 12/08 . . . . Styrene

C08F 12/12 . . . . Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical

C08F 12/14 . . . substituted by hetero atoms or groups containing heteroatoms

C08F 12/16 . . . . Halogens

C08F 12/18 . . . . . Chlorine

C08F 12/20 . . . . . Fluorine

C08F 12/22 . . . . Oxygen

C08F 12/24 . . . . . Phenols or alcohols

C08F 12/26 . . . . Nitrogen

C08F 12/28 . . . . . Amines

C08F 12/30 . . . . Sulfur

C08F 12/32 . . containing two or more rings

C08F 12/34 . Monomers containing two or more unsaturated aliphatic radicals

C08F 12/36 . . Divinylbenzene

C08F 14/00 **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 a halogen**

C08F 14/02 . Monomers containing chlorine

C08F 14/04 . . Monomers containing two carbon atoms

C08F 14/06 . . . Vinyl chloride

NOTE

In group C08F 14/06 the method of polymerisation may be indicated using the subdivision of C08F 2/02 to C08F 2/06, C08F 2/16 to C08F 2/30, C08F 2/34 or C08F 2/38 to C08F 2/46 in the form of C-Sets. Example: (C08F 14/06, C08F 2/44)

C08F 14/08 . . . Vinylidene chloride

C08F 14/12 . . . 1,2- Dichloroethene

C08F 14/14 . . Monomers containing three or more carbon atoms

C08F 14/16 . Monomers containing bromine or iodine

C08F 14/18 . Monomers containing fluorine

NOTE

In group C08F 14/18 and subgroups, the method of polymerisation may be indicated using the subdivision of C08F 2/02, C08F 2/04, C08F 2/16, C08F 2/38, C08F 2/44 and C08F 2/46 in the form of C-Sets. Example: (C08F 14/22, C08F 2/38)

C08F 14/185 . . {Monomers containing fluorine not covered by the groups C08F 14/20 to C08F 14/28}

C08F 14/20 . . Vinyl fluoride

C08F 14/22 . . Vinylidene fluoride

C08F 14/24 . . Trifluorochloroethene

C08F 14/26 . . Tetrafluoroethene

C08F 14/28 . . Hexafluoropropene

C08F 16/00 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 alcohol, ether, aldehydo, ketonic, acetal or ketal radical

C08F 16/02 . by an alcohol radical

C08F 16/04 . . Acyclic compounds

C08F 16/06 . . . Polyvinyl alcohol; {Vinyl alcohol}

C08F 16/08 . . . Allyl alcohol

C08F 16/10 . . Carbocyclic compounds

C08F 16/12 . by an ether radical

C08F 16/14 . . Monomers containing only one unsaturated aliphatic radical

C08F 16/16 . . . Monomers containing no hetero atoms other than the ether oxygen

C08F 16/18 . . . . Acyclic compounds

C08F 16/20 . . . . . Monomers containing three or more carbon atoms in the unsaturated aliphatic radical

C08F 16/22 . . . . Carbocyclic compounds

C08F 16/24 . . . Monomers containing halogen
C08F 16/26 . . . Monomers containing oxygen atoms in addition to the ether oxygen
C08F 16/28 . . . Monomers containing nitrogen
C08F 16/30 . . . Monomers containing sulfur
C08F 16/32 . . Monomers containing two or more unsaturated aliphatic radicals
C08F 16/34 . by an aldehydo radical
C08F 16/36 . by a ketonic radical
C08F 16/38 . by an acetal or ketal radical

C08F 18/00 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 acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid

C08F 18/02 . Esters of monocarboxylic acids
C08F 18/04 . . Vinyl esters
C08F 18/06 . . . Vinyl formate
C08F 18/08 . . . Vinyl acetate
C08F 18/10 . . . of monocarboxylic acids containing three or more carbon atoms
C08F 18/12 . . with unsaturated alcohols containing three or more carbon atoms
C08F 18/14 . Esters of polycarboxylic acids
C08F 18/16 . . with alcohols containing three or more carbon atoms
C08F 18/18 . . . Diallyl phthalate
C08F 18/20 . Esters containing halogen
C08F 18/22 . Esters containing nitrogen
C08F 18/24 . Esters of carbonic or haloformic acids

C08F 20/00 Homopolymers and 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

C08F 20/02 . Monocarboxylic acids having less than ten carbon atoms, Derivatives thereof
C08F 20/04 . . Acids, Metal salts or ammonium salts thereof
C08F 20/06 . . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof
C08F 20/08 . . Anhydrides
C08F 20/10 . . Esters

NOTE

In groups C08F 20/12 to C08F 20/14 the method of polymerisation may be indicated using the subdivision of C08F 2/02 to C08F 2/06, C08F 2/16 to C08F 2/30, C08F 2/34 or C08F 2/38 to C08F 2/46 in the form of C-Sets. Example: (C08F 20/12, C08F 2/26)

C08F 20/12 . . . of monohydric alcohols or phenols
C08F 20/14 . . . . Methyl esters
C08F 20/16 . . . . of phenols or of alcohols containing two or more carbon atoms

C08F 20/18 . . . . . with acrylic or methacrylic acids
C08F 20/20 . . . of polyhydric alcohols or phenols
C08F 20/22 . . . Esters containing halogen
C08F 20/24 . . . . containing perhaloalkyl radicals
C08F 20/26 . . . Esters containing oxygen in addition to the carboxy oxygen
C08F 20/28 . . . . containing no aromatic rings in the alcohol moiety
C08F 20/30 . . . . containing aromatic rings in the alcohol moiety
C08F 20/32 . . . . containing epoxy radicals
C08F 20/34 . . . Esters containing nitrogen
C08F 20/36 . . . . containing oxygen in addition to the carboxy oxygen
C08F 20/38 . . . Esters containing sulfur
C08F 20/40 . . . Esters of unsaturated alcohols
C08F 20/42 . . Nitriles
C08F 20/44 . . . Acrylonitrile

NOTE

In group C08F 20/44 the method of polymerisation may be indicated using the subdivision of C08F 2/02 to C08F 2/06, C08F 2/16 to C08F 2/30, C08F 2/34 or C08F 2/38 to C08F 2/46 in the form of C-Sets. Example: (C08F 20/44, C08F 2/46)

C08F 20/50 . . . containing four or more carbon atoms
C08F 20/52 . . Amides or imides
C08F 20/54 . . . Amides
C08F 20/56 . . . . Acrylamide; Methacrylamide
C08F 20/58 . . . . containing oxygen in addition to the carbonamido oxygen
C08F 20/60 . . . . containing nitrogen in addition to the carbonamido nitrogen
C08F 20/62 . Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof
C08F 20/64 . . Acids; Metal salts or ammonium salts thereof
C08F 20/66 . . Anhydrides
C08F 20/68 . . Esters
C08F 20/70 . . Nitriles; Amides; Imides

C08F 22/00 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 a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides or nitriles thereof

C08F 22/02 . Acids; Metal salts or ammonium salts thereof
C08F 22/04 . Anhydrides, e.g. cyclic anhydrides
C08F 22/06 . . Maleic anhydride
C08F 22/10 . Esters
C08F 22/105 . . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylate}

C08F 22/12 . . of phenols or saturated alcohols {(C08F 22/105 takes precedence)}
C08F 22/14 . . . Esters having no free carboxylic acid groups
C08F 22/16 . . . Esters having free carboxylic acid groups
C08F 22/18 . . . Esters containing halogen
C08F 22/20 . . . Esters containing oxygen in addition to the carboxy oxygen
C08F 22/22 . . . Esters containing nitrogen
C08F 22/24 . . . Esters containing sulfur
C08F 22/26 . . of unsaturated alcohols {(C08F 22/105 takes precedence)}
C08F 22/28 . . . Diallyl maleate
C08F 22/30 . Nitriles
C08F 22/32 . . alfa-Cyano-acrylic acid; Esters thereof
C08F 22/34 . . Vinylidene cyanide
C08F 22/36 . Amides or imides
C08F 22/38 . . Amides
C08F 22/385 . . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}
C08F 22/40 . . Imides, e.g. cyclic imides

C08F 24/00 **Homopolymers and copolymers of compounds having one ore more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen** (cyclic esters of polyfunctional acids C08F 18/00; cyclic anhydrides of unsaturated acids C08F 20/00, C08F 22/00)

C08F 26/00 **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 a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen**

C08F 26/02 . by a single or double bond to nitrogen
C08F 26/04 . . Diallylamine
C08F 26/06 . by a heterocyclic ring containing nitrogen
C08F 26/08 . . N-vinyl-pyrrolidine
C08F 26/10 . . N-Vinyl-pyrrolidone
C08F 26/12 . . N-Vinyl-carbazole

C08F 28/00 **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 a bond to sulfur or by a heterocyclic ring containing sulfur**

C08F 28/02 . by a bond to sulfur
C08F 28/04 . . Thioethers
C08F 28/06 . by a heterocyclic ring containing sulfur

C08F 30/00 **Homopolymers and 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)

C08F 30/02 . containing phosphorus

C08F 30/04 . containing a metal

C08F 30/06 . . containing boron

C08F 30/08 . . containing silicon

C08F 30/10 . . containing germanium

C08F 32/00 **Homopolymers and copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system**

C08F 32/02 . having no condensed rings

C08F 32/04 . . having one carbon-to-carbon double bond

C08F 32/06 . . having two or more carbon-to-carbon double bonds

C08F 32/08 . having two condensed rings (coumarone-indene polymers C08F 244/00)

C08F 34/00 **Homopolymers and copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a heterocyclic ring** (cyclic esters of polyfunctional acids C08F 18/00; cyclic anhydrides or imides C08F 22/00)

C08F 34/02 . in a ring containing oxygen (coumarone-indene polymers C08F 244/00)

C08F 34/04 . in a ring containing sulfur

C08F 36/00 **Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds** (C08F 32/00 takes precedence)

NOTE

In C08F 36/00 to C08F 36/22 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/58 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/60, C08F 4/62, C08F 4/64, C08F 4/642, C08F 4/6421, C08F 4/643 or C08F 4/68 to C08F 4/82 in the form of C-Sets. Example: (C08F 36/04, C08F 4/642)

C08F 36/02 . the radical having only two carbon-to-carbon double bonds

C08F 36/04 . . conjugated

C08F 36/045 . . . {conjugated hydrocarbons other than butadiene or isoprene}

C08F 36/06 . . . Butadiene

C08F 36/08 . . . Isoprene

C08F 36/14 . . . containing elements other than carbon and hydrogen

C08F 36/16 . . . . containing halogen

C08F 36/18 . . . . . containing chlorine

C08F 36/20 . . unconjugated

C08F 36/22 . the radical having three or more carbon-to-carbon double bonds

C08F 38/00 **Homopolymers and copolymers of compounds having one or more carbon-to-carbon triple bonds**

C08F 38/02 . Acetylene

C08F 38/04 . Vinylacetylene

Homopolymers

C08F 110/00 **Homopolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond**

NOTE

In groups C08F 110/00 to C08F 110/14 the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of C08F 2/00 to C08F 2/58 or of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 110/14, C08F 4/6592)

C08F 110/02 . Ethene

C08F 110/04 . monomers containing three or four carbon atoms

C08F 110/06 . . Propene

C08F 110/08 . . Butenes

C08F 110/10 . . . Isobutene

C08F 110/14 . Monomers containing five or more carbon atoms

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

From April 2012 on, in groups C08F 112/00 to C08F 112/36 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/60 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 112/08, C08F 4/70)

C08F 112/02 . Monomers containing only one unsaturated aliphatic radical

C08F 112/04 . . containing one ring

C08F 112/06 . . . Hydrocarbons

C08F 112/08 . . . . Styrene

C08F 112/12 . . . . Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical

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

C08F 112/32 . . containing two or more rings

C08F 112/34 . Monomers containing two or more unsaturated aliphatic radicals

C08F 112/36 . . Divinylbenzene

C08F 114/00 **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 a halogen**

C08F 114/02 . Monomers containing chlorine

C08F 114/04 . . Monomers containing two carbon atoms

C08F 114/06 . . . Vinyl chloride

C08F 114/08 . . . Vinylidene chloride

C08F 114/12 . . . 1,2- Dichloroethene

C08F 114/14 . . Monomers containing three or more carbon atoms

C08F 114/16 . Monomers containing bromine or iodine

C08F 114/18 . Monomers containing fluorine

C08F 114/185 . . {Monomers containing fluorine not covered by the groups C08F 114/20 to C08F 114/28}

C08F 114/20 . . Vinyl fluoride

C08F 114/22 . . Vinylidene fluoride

C08F 114/24 . . Trifluorochloroethene

C08F 114/26 . . Tetrafluoroethene

C08F 114/28 . . Hexafluoropropene

C08F 116/00 **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 alcohol, ether, aldehydo, ketonic, acetal or ketal radical**

C08F 116/02 . by an alcohol radical

C08F 116/04 . . Acyclic compounds

C08F 116/06 . . . Polyvinyl alcohol; {Vinyl alcohol}

C08F 116/08 . . . Allyl alcohol

C08F 116/10 . . Carbocyclic compounds

C08F 116/12 . by an ether radical

C08F 116/14 . . Monomers containing only one unsaturated aliphatic radical

C08F 116/16 . . . Monomers containing no hetero atoms other than the ether oxygen

C08F 116/18 . . . . Acyclic compounds

C08F 116/20 . . . . . Monomers containing three or more carbon atoms in the unsaturated aliphatic radical

C08F 116/34 . by an aldehydo radical

C08F 116/36 . by a ketonic radical

C08F 116/38 . by a acetal or ketal radical

C08F 118/00 **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 acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid**

C08F 118/02 . Esters of monocarboxylic acids

C08F 118/04 . . Vinyl esters
C08F 118/06 . . . Vinyl formate
C08F 118/08 . . . Vinyl acetate
C08F 118/10 . . . of monocarboxylic acids containing three or more carbon atoms
C08F 118/12 . . with unsaturated alcohols containing three or more carbon atoms
C08F 118/14 . Esters of polycarboxylic acids
C08F 118/16 . . with alcohols containing three or more carbon atoms
C08F 118/18 . . . Diallyl phthalate

C08F 120/00 Homopolymers 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

C08F 120/02 . Monocarboxylic acids having less than ten carbon atoms; Derivatives thereof
C08F 120/04 . . Acids; Metal salts or ammonium salts thereof
C08F 120/06 . . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof
C08F 120/08 . . Anhydrides
C08F 120/10 . . Esters
C08F 120/12 . . . of monohydric alcohols or phenols
C08F 120/14 . . . . Methyl esters
C08F 120/16 . . . . of phenols or of alcohols containing two or more carbon atoms
C08F 120/18 . . . . . with acrylic or methacrylic acids
C08F 120/20 . . . of polyhydric alcohols or phenols
C08F 120/22 . . . Esters containing halogen
C08F 120/24 . . . . containing perhaloalkyl radicals
C08F 120/26 . . . Esters containing oxygen in addition to the carboxy oxygen
C08F 120/28 . . . . containing no aromatic rings in the alcohol moiety
C08F 120/30 . . . . containing aromatic rings in the alcohol moiety
C08F 120/32 . . . . containing epoxy radicals
C08F 120/34 . . . Esters containing nitrogen
C08F 120/36 . . . . containing oxygen in addition to the carboxy oxygen
C08F 120/38 . . . Esters containing sulfur
C08F 120/40 . . . Esters of unsaturated alcohols
C08F 120/42 . . Nitriles
C08F 120/44 . . . Acrylonitrile
C08F 120/50 . . . containing four or more carbon atoms
C08F 120/52 . . Amides or imides
C08F 120/54 . . . Amides
C08F 120/56 . . . . Acrylamide; Methacrylamide
C08F 120/58 . . . . containing oxygen in addition to the carbonamido oxygen
C08F 120/60 . . . . containing nitrogen in addition to the carbonamido nitrogen

C08F 120/62 . Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof

C08F 120/64 . . Acids; Metal salts or ammonium salts thereof

C08F 120/66 . . Anhydrides

C08F 120/68 . . Esters

C08F 120/70 . . Nitriles; Amides; Imides

C08F 122/00 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 a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides or nitriles thereof

C08F 122/02 . Acids; Metal salts or ammonium salts thereof

C08F 122/04 . Anhydrides, e.g. cyclic anhydrides

C08F 122/06 . . Maleic anhydride

C08F 122/10 . Esters

C08F 122/105 . . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylat}

C08F 122/12 . . of phenols or saturated alcohols {(C08F 122/105 takes precedence)}

C08F 122/14 . . . Esters having no free carboxylic acid groups

C08F 122/16 . . . Esters having free carboxylic acid groups

C08F 122/18 . . . Esters containing halogen

C08F 122/20 . . . Esters containing oxygen in addition to the carboxy oxygen

C08F 122/22 . . . Esters containing nitrogen

C08F 122/24 . . . Esters containing sulfur

C08F 122/26 . . of unsaturated alcohols {(C08F 122/105 takes precedence)}

C08F 122/28 . . . Diallyl maleate

C08F 122/30 . Nitriles

C08F 122/32 . . alfa-Cyano-acrylic acid; Esters thereof

C08F 122/34 . . Vinylidene cyanide

C08F 122/36 . Amides or imides

C08F 122/38 . . Amides

C08F 122/385 . . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}

C08F 122/40 . . Imides, e.g. cyclic imides

C08F 124/00 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 a heterocyclic ring containing oxygen (cyclic esters of polyfunctional acids C08F 118/00; cyclic anhydrides of unsaturated acids C08F 120/00, C08F 122/00)

C08F 126/00 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 a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen

C08F 126/02 . by a single or double bond to nitrogen

C08F 126/04 . . Diallylamine

C08F 126/06 . by a heterocyclic ring containing nitrogen

C08F 126/08 . . N-Vinyl-pyrrolidine

C08F 126/10 . . N-Vinyl-pyrrolidone

C08F 126/12 . . N-Vinyl-carbazole

C08F 128/00 **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 a bond to sulfur or by a heterocyclic ring containing sulfur**

C08F 128/02 . by a bond to sulfur

C08F 128/04 . . Thioethers

C08F 128/06 . by a heterocyclic ring containing sulfur

C08F 130/00 **Homopolymers 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)

C08F 130/02 . containing phosphorus

C08F 130/04 . containing a metal

C08F 130/06 . . containing boron

C08F 130/08 . . containing silicon

C08F 130/10 . . containing germanium

C08F 132/00 **Homopolymers of cyclic compounds containing no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system**

C08F 132/02 . having no condensed rings

C08F 132/04 . . having one carbon-to-carbon double bond

C08F 132/06 . . having two or more carbon-to-carbon double bonds

C08F 132/08 . having condensed rings

C08F 134/00 **Homopolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a heterocyclic ring** (cyclic esters of polyfunctional acids C08F 118/00; cyclic anhydrides or imides C08F 122/00)

C08F 134/02 . in a ring containing oxygen

C08F 134/04 . in a ring containing sulfur

C08F 136/00 **Homopolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds** (C08F 132/00 takes precedence)

NOTE

In C08F 136/00 to C08F 136/22 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/58 in the form of C-

C08F 136/00 (continued)

Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/60, C08F 4/62, C08F 4/64, C08F 4/642, C08F 4/6421, C08F 4/643 or C08F 4/68 to C08F 4/82 in the form of C-Sets. Example: (C08F 136/18, C08F 2/26)

C08F 136/02 . the radical having only two carbon-to-carbon double bonds

C08F 136/04 . . conjugated

C08F 136/045 . . . {conjugated hydrocarbons other than butadiene or isoprene}

C08F 136/06 . . . Butadiene

C08F 136/08 . . . Isoprene

C08F 136/14 . . . containing elements other than carbon and hydrogen

C08F 136/16 . . . . containing halogen

C08F 136/18 . . . . . containing chlorine

C08F 136/20 . . unconjugated

C08F 136/22 . the radical having three or more carbon-to-carbon double bonds

C08F 138/00 **Homopolymers of compounds having one or more carbon-to-carbon triple bonds**

C08F 138/02 . Acetylene

C08F 138/04 . Vinylacetylene

Copolymers

C08F 210/00 **Copolymers of unsaturated aliphatic hydrocarbon having only one carbon-to-carbon double bond**

NOTE

In C08F 210/00 to C08F 210/18 the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of C08F 2/00 to C08F 2/58 or of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 210/06, C08F 4/04)

C08F 210/02 . Ethene

C08F 210/04 . Monomers containing three or four carbon atoms

C08F 210/06 . . Propene

C08F 210/08 . . Butenes

C08F 210/10 . . . Isobutene

C08F 210/12 . . . . with conjugated diolefins, e.g. butyl rubber

C08F 210/14 . Monomers containing five or more carbon atoms

C08F 210/16 . Copolymers of ethene with alfa-alkenes, e.g. EP rubbers

C08F 210/18 . . with non-conjugated dienes, e.g. EPT rubbers

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

C08F 212/00 (continued)

From April 2012 on, in groups C08F 212/00 to C08F 212/36 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/60 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/82 in the form of C-Sets. Example: (C08F 212/08, C08F 4/16)

C08F 212/02 . Monomers containing only one unsaturated aliphatic radical

C08F 212/04 . . containing one ring

C08F 212/06 . . . Hydrocarbons

C08F 212/08 . . . . Styrene

C08F 212/10 . . . . . with nitriles

C08F 212/12 . . . . Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical

C08F 212/14 . . . substituted by heteroatoms or groups containing heteroatoms

C08F 212/145 . . . . {the heteroatoms being part of ester groups derived from unsaturated acids}

C08F 212/32 . . containing two or more rings

C08F 212/34 . Monomers containing two or more unsaturated aliphatic radicals

C08F 212/36 . . Divinylbenzene

C08F 214/00 **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 halogen**

C08F 214/02 . Monomers containing chlorine

C08F 214/04 . . Monomers containing two carbon atoms

C08F 214/06 . . . Vinyl chloride

C08F 214/08 . . . Vinylidene chloride

C08F 214/10 . . . . with nitriles

C08F 214/12 . . . 1,2-Dichloroethene

C08F 214/14 . . Monomers containing three or more carbon atoms

C08F 214/16 . Monomers containing bromine or iodine

C08F 214/18 . Monomers containing fluorine

C08F 214/182 . . {Monomers containing fluorine not covered by the groups C08F 214/20 to C08F 214/28}

C08F 214/184 . . {with fluorinated vinyl ethers}

C08F 214/186 . . {with non-fluorinated comonomers}

C08F 214/188 . . . {with non-fluorinated vinyl ethers}

C08F 214/20 . . Vinyl fluoride

C08F 214/202 . . . {with fluorinated vinyl ethers}

C08F 214/205 . . . {with non-fluorinated comonomers}

C08F 214/207 . . . . {with non-fluorinated vinyl ethers}

C08F 214/22 . . Vinylidene fluoride

C08F 214/222 . . . {with fluorinated vinyl ethers}

C08F 214/225 . . . {with non-fluorinated comonomers}

C08F 214/227 . . . . {with non-fluorinated vinyl ethers}
C08F 214/24 . . Trifluorochloroethene
C08F 214/242 . . . {with fluorinated vinyl ethers}
C08F 214/245 . . . {with non-fluorinated comonomers}
C08F 214/247 . . . . {with non-fluorinated vinyl ethers}
C08F 214/26 . . Tetrafluoroethene
C08F 214/262 . . . {with fluorinated vinyl ethers}
C08F 214/265 . . . {with non-fluorinated comonomers}
C08F 214/267 . . . . {with non-fluorinated vinyl ethers}
C08F 214/28 . . Hexyfluoropropene
C08F 214/282 . . . {with fluorinated vinyl ethers}
C08F 214/285 . . . {with non-fluorinated comonomers}
C08F 214/287 . . . . {with non-fluorinated vinyl ethers}

C08F 216/00 **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 alcohol, ether, aldehydo, ketonic, acetal or ketal radical**

C08F 216/02 . by an alcohol radical
C08F 216/04 . . Acyclic compounds
C08F 216/06 . . . Polyvinyl alcohol; {Vinyl alcohol}
C08F 216/08 . . . Allyl alcohol
C08F 2216/085 . . . . {Allyl alcohol alkoxylate}
C08F 216/10 . . Carbocyclic compounds
C08F 216/12 . by an ether radical
C08F 216/125 . . {monomers containing two or more unsaturated aliphatic radicals}
C08F 216/14 . . Monomers containing only one unsaturated aliphatic radical
C08F 216/1408 . . . {Monomers containing halogen}
C08F 216/1416 . . . {Monomers containing oxygen in addition to the ether oxygen}
C08F 2216/1425 . . . . {Monomers containing side chains of polyether groups}
C08F 2216/1433 . . . . . {Monomers containing side chains of polyethyleneoxide groups}
C08F 2216/1441 . . . . . {Monomers containing side chains of polypropyleneoxide groups}
C08F 2216/145 . . . . . {Monomers containing side chains of polyethylene-co-propyleneoxide groups}
C08F 216/1458 . . . {Monomers containing nitrogen}
C08F 216/1466 . . . {Monomers containing sulfur}
C08F 2216/1475 . . . . {Monomers containing sulfur and oxygen}
C08F 2216/1483 . . . . {Monomers containing sulfur and nitrogen}
C08F 2216/1491 . . . . {Monomers containing sulfur, oxygen and nitrogen}
C08F 216/16 . . . Monomers containing no hetero atoms other than the ether oxygen
C08F 216/165 . . . . {Carbocyclic compounds}

C08F 216/18 . . . . Acyclic compounds

C08F 216/20 . . . . . Monomers containing three or more carbon atoms in the unsaturated aliphatic radical

C08F 216/34 . by an aldehydo radical

C08F 216/36 . by a ketonic radical

C08F 216/38 . by an acetal or ketal radical

C08F 218/00 Copolymers 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

C08F 218/02 . Esters of monocarboxylic acids

C08F 218/04 . . Vinyl esters

C08F 218/06 . . . Vinyl formate

C08F 218/08 . . . Vinyl acetate

C08F 218/10 . . . of monocarboxylic acids containing three or more carbon atoms

C08F 218/12 . . with unsaturated alcohols containing three or more carbon atoms

C08F 218/14 . Esters of polycarboxylic acids

C08F 218/16 . . with alcohols containing three or more carbon atoms

C08F 218/18 . . . Diallyl phtalate

C08F 2218/20 . {Esters containing halogen}

C08F 2218/22 . {Esters containing nitrogen}

C08F 2218/24 . {Esters of carbonic or haloformic acids}

C08F 2218/245 . . {Esters of carbonic or haloformic acids, e.g. allyl carbonate}

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

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

C08F 220/04 . . Acids; Metal salts or ammonium salts thereof

C08F 220/06 . . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof

C08F 220/08 . . Anhydrides

C08F 220/10 . . Esters

C08F 220/12 . . . of monohydric alcohols or phenols

C08F 220/14 . . . . Methyl esters

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

C08F 220/18 . . . . . with acrylic or methacrylic acids

C08F 2220/1808 . . . . . {Ethyl or undefined short-chain (meth)acrylate}

C08F 2220/1816 . . . . . {Propyl(meth)acrylate}

C08F 2220/1825 . . . . . {Butyl(meth)acrylate}

C08F 2220/1833 . . . . . {Pentyl or undefined long chain (meth)acrylate}

C08F 2220/1841 . . . . . {Hexyl(meth)acrylate}

C08F 2220/185 . . . . . {Heptyl(meth)acrylate}
C08F 2220/1858 . . . . . {(iso)Octyl(meth)acrylate}
C08F 2220/1866 . . . . . {C9-(meth)Acrylate}
C08F 2220/1875 . . . . . {(iso)Decyl(meth)acrylate}
C08F 2220/1883 . . . . . {Lauryl(meth)acrylate}
C08F 2220/1891 . . . . . {Longer chain (meth)acrylate}
C08F 220/20 . . . of polyhydric alcohols or phenols
C08F 220/22 . . . Esters containing halogen
C08F 220/24 . . . . containing perhaloalkyl radicals
C08F 220/26 . . . Esters containing oxygen in addition to the carboxy oxygen
C08F 220/28 . . . . containing no aromatic rings in the alcohol moiety
C08F 2220/281 . . . . . {and containing only one oxygen}
C08F 2220/282 . . . . . {and containing two or more oxygen atoms}
C08F 2220/283 . . . . . {and containing one or more carboxylic moiety in the chain}
C08F 2220/285 . . . . . {and containing an ether chain in the alcohol moiety}
C08F 2220/286 . . . . . {and containing polyethylenoxide in the alcohol moiety}
C08F 2220/287 . . . . . {and containing polypropylenoxide in the alcohol moiety}
C08F 2220/288 . . . . . {and containing polypropylen-co-ethylen oxide in the alcohol moiety}
C08F 220/30 . . . . containing aromatic rings in the alcohol moiety
C08F 2220/301 . . . . . {and one oxygen in the alcohol moiety}
C08F 2220/302 . . . . . {and two or more oxygen atoms in the alcohol moiety}
C08F 2220/303 . . . . . {and one or more carboxylic moieties in the chain}
C08F 2220/305 . . . . . {and ether chain in the alcohol moiety}
C08F 2220/306 . . . . . {and polythylenoxide chain in the alcohol moiety}
C08F 2220/307 . . . . . {and polypropylene oxide chain in the alcohol moiety}
C08F 2220/308 . . . . . {and polyethylene-co-propylene oxide chain in the alcohol moiety}
C08F 220/32 . . . . containing epoxy radicals
C08F 2220/325 . . . . . {containing glycidyl radical}
C08F 220/34 . . . Esters containing nitrogen
C08F 2220/343 . . . . {in the form of urethane links}
C08F 2220/346 . . . . . {and further oxygen}
C08F 220/36 . . . . containing oxygen in addition to the carboxy oxygen
C08F 2220/365 . . . . . {containing further carboxylic moieties}
C08F 220/38 . . . Esters containing sulfur
C08F 2220/382 . . . . {and containing oxygen}
C08F 2220/385 . . . . {and containing nitrogen}
C08F 2220/387 . . . . {and containing nitrogen and oxygen}
C08F 220/40 . . . Esters of unsaturated alcohols

C08F 220/42 . . Nitriles
C08F 220/44 . . . Acrylonitrile
C08F 220/46 . . . . with carboxylic acids, sulfonic acids or salts thereof
C08F 220/48 . . . . with nitrogen-containing monomers
C08F 220/50 . . . containing four or more carbon atoms
C08F 220/52 . . Amides or imides
C08F 220/54 . . . Amides
C08F 220/56 . . . . Acrylamide; Methacrylamide
C08F 220/58 . . . . containing oxygen in addition to the carbonamido oxygen
C08F 2220/585 . . . . . {and containing other heteroatoms}
C08F 220/60 . . . . containing nitrogen in addition to the carbonamido nitrogen
C08F 2220/603 . . . . . {and containing oxygen in addition to the carbonamido oxygen and nitrogen}
C08F 2220/606 . . . . . {and containing other heteroatoms}
C08F 220/62 . Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof (copolymers of drying oils C08F 242/00)
C08F 220/64 . . Acids; Metal salts or ammonium salts thereof
C08F 220/66 . . Anhydrides
C08F 220/68 . . Esters
C08F 220/70 . . Nitriles; Amides; Imides

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**

C08F 222/02 . Acids; Metal salts or ammonium salts thereof
C08F 222/04 . Anhydrides, e.g. cyclic anhydrides
C08F 222/06 . . Maleic anhydride
C08F 222/08 . . . with vinyl aromatic monomers
C08F 222/10 . Esters
C08F 222/1006 . . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylat}
C08F 2222/1013 . . . {of dialcohols}
C08F 2222/102 . . . . {of aromatic dialcohols}
C08F 2222/1026 . . . {of trialcohols}
C08F 2222/1033 . . . . {of aromatic trialcohols}
C08F 2222/104 . . . {of tetraalcohols}
C08F 2222/1046 . . . . {of aromatic tetraalcohols}
C08F 2222/1053 . . . {of pentaalcohols}
C08F 2222/106 . . . . {of aromatic pentaalcohols}
C08F 2222/1066 . . . {Esters of polycondensation macromers}

C08F 2222/1073 . . . . {of alcohol terminated polyesters or polycarbonates}
C08F 2222/108 . . . . {of alcohol terminated polyethers}
C08F 2222/1086 . . . . {of alcohol terminated (poly)urethanes}
C08F 2222/1093 . . . . {of alcohol terminated epoxy functional polymers}
C08F 222/12 . . of phenols or saturated alcohols {(C08F 222/1006 takes precedence)}
C08F 222/14 . . . Esters having no free carboxylic acid groups
C08F 2222/145 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/16 . . . Esters having free carboxylic acid groups
C08F 2222/165 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/18 . . . Esters containing halogen
C08F 2222/185 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/20 . . . Esters containing oxygen in addition to the carboxy oxygen
C08F 2222/205 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/22 . . . Esters containing nitrogen
C08F 2222/225 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/24 . . . Esters containing sulfur
C08F 2222/245 . . . . {the ester chains containing seven or more carbon atoms}
C08F 222/26 . . of unsaturated alcohols {(C08F 222/1006 takes precedence)}
C08F 222/28 . . . Diallyl maleate
C08F 222/30 . Nitriles
C08F 222/32 . . alfa-Cyano-acrylic acid; Esters thereof
C08F 2222/321 . . . {alfa-Cyano-acrylic acid methyl ester}
C08F 2222/322 . . . {alfa-Cyano-acrylic acid ethyl ester}
C08F 2222/323 . . . {alfa-Cyano-acrylic acid propyl ester}
C08F 2222/324 . . . {alfa-Cyano-acrylic acid butyl ester}
C08F 2222/325 . . . {alfa-Cyano-acrylic acid pentyl ester}
C08F 2222/326 . . . {alfa-Cyano-acrylic acid longer chain ester}
C08F 2222/327 . . . {alfa-Cyano-acrylic acid alkoxy ester}
C08F 2222/328 . . . {alfa-Cyano-acrylic acid with more than one oxygen in the ester moiety}
C08F 222/34 . . Vinylidene cyanide
C08F 222/36 . Amides or imides
C08F 222/38 . . Amides
C08F 222/385 . . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}
C08F 222/40 . . Imides, e.g. cyclic imides
C08F 2222/402 . . . {Alkyl substituted imides}
C08F 2222/404 . . . {the substituted imides comprising oxygen other than the carboxy oxygen}
C08F 2222/406 . . . {the substituted imides comprising nitrogen other than the imide nitrogen}
C08F 2222/408 . . . {the substituted imides comprising other heteroatom}

C08F 224/00 **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 heterocyclic ring containing oxygen** (cyclic esters of polyfunctional acids C08F 218/00; cyclic anhydrides of unsaturated acids C08F 220/00, C08F 222/00)

C08F 226/00 **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 single or double bond to nitrogen or by a heterocyclic ring containing nitrogen**

C08F 226/02 . by a single or double bond to nitrogen

C08F 226/04 . . Diallylamine

C08F 226/06 . by a heterocyclic ring containing nitrogen

C08F 226/08 . . N-Vinyl-pyrrolidine

C08F 226/10 . . N-Vinyl-pyrrolidone

C08F 226/12 . . N-Vinylcarbazole

C08F 228/00 **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 bond to sulfur or by a heterocyclic ring containing sulfur**

C08F 228/02 . by a bond to sulfur

C08F 228/04 . . Thioethers

C08F 228/06 . by a heterocyclic ring containing sulfur

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)

C08F 230/02 . containing phosphorus

C08F 230/04 . containing a metal

C08F 230/06 . . containing boron

C08F 2230/065 . . . {the monomer being a polymerisable additive}

C08F 230/08 . . containing silicon

C08F 2230/085 . . . {the monomer being a polymerisable additive}

C08F 230/10 . . containing germanium

C08F 232/00 **Copolymers of cyclic compounds containing no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system**

C08F 232/02 . having no condensed rings

C08F 232/04 . . having one carbon-to-carbon double bond

C08F 232/06 . . having two or more carbon-to-carbon double bonds

C08F 232/08 . having condensed rings (coumarone-indene polymers C08F 244/00)

C08F 234/00 **Copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in aheterocyclic ring** (cyclic esters of polyfunctional acids C08F 218/00; cyclic anhydrides or imides C08F 222/00)

C08F 234/02 . in a ring containing oxygen (coumarone-indene polymers C08F 244/00)

C08F 234/04 . in a ring containing sulfur

C08F 236/00 **Copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds** (C08F 232/00 takes precedence)

NOTE

In C08F 236/00 to C08F 236/22 the method of polymerisation may be indicated using the subdivision of C08F 2/00 to C08F 2/58 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 to C08F 4/60, C08F 4/62, C08F 4/64, C08F 4/642, C08F 4/6421, C08F 4/643 or C08F 4/68 to C08F 4/82 in the form of C-Sets. Example: (C08F 236/10, C08F 4/46)

C08F 236/02 . the radical having only two carbon-to-carbon double bonds

C08F 236/04 . . conjugated

C08F 236/045 . . . {conjugated hydrocarbons other than butadiene or isoprene}

C08F 236/06 . . . Butadiene

C08F 236/08 . . . Isoprene

C08F 236/10 . . . with vinyl-aromatic monomers

C08F 236/12 . . . with nitriles

C08F 236/14 . . . containing elements other than carbon and hydrogen

C08F 236/16 . . . . containing halogen

C08F 236/18 . . . . . containing chlorine

C08F 236/20 . . unconjugated

C08F 236/22 . the radical having three or more carbon-to-carbon double bonds

C08F 238/00 **Copolymers of compounds having one or more carbon-to-carbon triple bonds**

C08F 238/02 . Acetylene

C08F 238/04 . Vinylacetylene

C08F 240/00 **Copolymers of hydrocarbons and mineral oils, e.g. petroleum resins**

C08F 242/00 **Copolymers of drying oils with other monomers**

C08F 244/00 **Coumarone-indene copolymers**

C08F 246/00 **Copolymers in which the nature of only the monomers in minority is defined**

Graft polymers; Polymers crosslinked with unsaturated monomers

NOTE

In C08F 251/00 to C08F 292/00 the grafted monomer may be indicated using the subdivision of C08F 210/00 to C08F 238/04 preceded by a "+" sign.
Example: C08F 265/06 +220/06

C08F 251/00	**Macromolecular compounds obtained by polymerising monomers on to polysaccharides or derivatives thereof**
C08F 251/02	. on to cellulose or derivatives thereof
C08F 253/00	**Macromolecular compounds obtained by polymerising monomers on to natural rubbers or derivatives thereof**
C08F 255/00	**Macromolecular compounds obtained by polymerising monomers on to polymers of hydrocarbons as defined in group C08F 10/00**
C08F 255/02	. on to polymers of olefins having two or three carbon atoms
C08F 255/023	. . {On to modified polymers, e.g. chlorinated polymers}
C08F 255/026	. . {on to ethylene-vinylester copolymers}
C08F 255/04	. . on to ethene-propene copolymers {(C08F 255/023 takes precedence)}
C08F 255/06	. . on to ethene-propene-diene terpolymers {(C08F 255/023 takes precedence)}
C08F 255/08	. on to polymers of olefins having four or more carbon atoms
C08F 255/10	. . on to butene polymers
C08F 257/00	**Macromolecular compounds obtained by polymerising monomers on to polymers of aromatic monomers as defined in group C08F 12/00**
C08F 257/02	. on to polymers of styrene or alkyl-substituted styrenes
C08F 259/00	**Macromolecular compounds obtained by polymerising monomers on to polymers of halogen containing monomers as defined in group C08F 14/00**
C08F 259/02	. on to polymers containing chlorine
C08F 259/04	. . on to polymers of vinyl chloride
C08F 259/06	. . on to polymers of vinylidene chloride
C08F 259/08	. on to polymers containing fluorine
C08F 261/00	**Macromolecular compounds obtained by polymerising monomers on to polymers of oxygen-containing monomers as defined in group C08F 16/00**
C08F 261/02	. on to polymers of unsaturated alcohols
C08F 261/04	. . on to polymers of vinyl alcohol
C08F 261/06	. on to polymers of unsaturated ethers
C08F 261/08	. on to polymers of unsaturated aldehydes
C08F 261/10	. on to polymers of unsaturated ketones
C08F 261/12	. on to polymers of unsaturated acetals or ketals

C08F 263/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of esters of unsaturated alcohols with saturated acids as defined in group C08F 18/00**

C08F 263/02 . on to polymers of vinyl esters with monocarboxylic acids

C08F 263/04 . . on to polymers of vinyl acetate

C08F 263/06 . on to polymers of esters with polycarboxylic acids

C08F 263/08 . . Polymerisation of diallyl phthalate prepolymers

C08F 265/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of unsaturated monocarboxylic acids or derivatives thereof as defined in group C08F 20/00**

C08F 265/02 . on to polymers of acids, salts or anhydrides

C08F 265/04 . on to polymers of esters

C08F 265/06 . . Polymerisation of acrylate or methacrylate esters on to polymers thereof

NOTE

In C08F 265/06 the method of polymerisation may be indicated using the subdivision of C08F 2/02, C08F 2/16, C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 265/06, C08F 2/16)

C08F 265/08 . on to polymers of nitriles

C08F 265/10 . on to polymers of amides or imides

C08F 267/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of unsaturated polycarboxylic acids or derivatives thereof as defined in group C08F 22/00**

C08F 267/02 . on to polymers of acids or salts

C08F 267/04 . on to polymers of anhydrides

C08F 267/06 . on to polymers of esters

C08F 267/08 . on to polymers of nitriles

C08F 267/10 . on to polymers of amides or imides

C08F 269/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of heterocyclic oxygen-containing monomers as defined in group C08F 24/00**

C08F 271/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of nitrogen-containing monomers as defined in group C08F 26/00**

C08F 271/02 . on to polymers of monomers containing heterocyclic nitrogen

C08F 273/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of sulfur-containing monomers as defined in group C08F 28/00**

C08F 275/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of monomers containing phosphorus, selenium, tellurium or a metal as defined in group C08F 30/00**

C08F 277/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of carbocyclic or heterocyclic monomers as defined respectively in group C08F 32/00 or in group C08F 34/00**

C08F 279/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00**

NOTE

In C08F 279/02 and C08F 279/04 the method of polymerisation may be indicated using the subdivision of C08F 2/02, C08F 2/16, C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 279/02, C08F 2/22)

C08F 279/02 . on to polymers of conjugated dienes

C08F 279/04 . . Vinyl aromatic monomers and nitriles as the only monomers

C08F 279/06 . . Vinyl aromatic monomers and methacrylates as the only monomers

C08F 281/00 **Macromolecular compounds obtained by polymerising monomers on to polymers of monomers having carbon-to-carbon triple bonds as defined in group C08F 38/00**

C08F 283/00 **Macromolecular compounds obtained by polymerising monomers on to polymers provided for in subclass C08G {**(on to polymers modified by introduction of aliphatic unsaturated end or side groups C08F 290/00)**}**

C08F 283/002 . {on to polymers modified by after-treatment}

C08F 283/004 . . {modified by incorporation of silicium atoms}

C08F 283/006 . {on to polymers provided for in C08G 18/00 (C08F 283/004 takes precedence)}

C08F 283/008 . . {on to unsaturated polymers}

C08F 283/01 . on to unsaturated polyesters {(C08F 283/004 takes precedence)}

NOTE

After the symbol of group C08F 283/01 - C08F 283/14 and using the C-Sets, notations concerning the method of polymerisation or the nature of the catalyst can be indicated. These notations are selected from groups C08F 2/00, C08F 2/16, C08F 2/46, C08F 2/48, C08F 2/50, C08F 4/00, C08F 4/04, C08F 4/06, C08F 4/28 and C08F 4/42. Example: (C08F 283/01, C08F 2/16)

C08F 283/02 . on to polycarbonates or saturated polyesters {(C08F 283/004 takes precedence)}

C08F 283/04 . on to polycarbonamides, polyesteramides or polyimides {(C08F 283/004 takes precedence)}

C08F 283/045 . . {on to unsaturated polycarbonamides, polyesteramides or polyimides}

C08F 283/06 . on to polyethers, polyoxymethylenes or polyacetals {(C08F 283/004 takes precedence)}

C08F 283/065 . . {on to unsaturated polyethers, polyoxymethylenes or polyacetals}

C08F 283/08 . . on to polyphenylene oxides

C08F 283/085 . . . {on to unsaturated polyphenylene oxides}

C08F 283/10 . on to polymers containing more than one epoxy radical per molecule {(C08F 283/004 takes precedence)}

C08F 283/105 . . {on to unsaturated polymers containing more than one epoxy radical per molecule}

C08F 283/12 . on to polysiloxanes

C08F 283/122 . . {on to saturated polysiloxanes containing hydrolysable groups, e.g. alkoxy-, thio-, hydroxy-}

C08F 283/124 . . {on to polysiloxanes having carbon-to-carbon double bonds}

C08F 283/126 . . {on to polysiloxanes being the result of polycondensation and radical polymerisation reactions}

C08F 283/128 . . {on to reaction products of polysiloxanes having at least one Si-H bond and compounds having carbon-to-carbon double bonds}

C08F 283/14 . on to polymers obtained by ring-opening polymerisation of carbocyclic compounds having one or more carbon-to-carbon double bonds in the carbocyclic ring, i.e. polyalkeneamers {(C08F 283/004 takes precedence)}

C08F 285/00 **Macromolecular compounds obtained by polymerising monomers on to preformed graft polymers {(C08F 283/00 takes precedence)}**

C08F 287/00 **Macromolecular compounds obtained by polymerising monomers on to block polymers {(C08F 283/00 takes precedence)}**

C08F 289/00 **Macromolecular compounds obtained by polymerising monomers on to macromolecular compounds not provided for in groups C08F 251/00 to C08F 287/00**

C08F 290/00 **Macromolecular compounds obtained by polymerising monomers on to polymers modified by introduction of aliphatic unsaturated end or side groups**

C08F 290/02 . on to polymers modified by introduction of unsaturated end groups

C08F 290/04 . . Polymers provided for in subclasses C08C or C08F

C08F 290/042 . . . {Polymers of hydrocarbons as defined in group C08F 10/00}

C08F 290/044 . . . {Polymers of aromatic monomers as defined in group C08F 12/00}

C08F 290/046 . . . {Polymers of unsaturated carboxylic acids or derivatives thereof}

C08F 290/048 . . . {Polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00}

C08F 290/06 . . Polymers provided for in subclass C08G

C08F 290/061 . . . {Polyesters; Polycarbonates}

C08F 290/062 . . . {Polyethers}

C08F 290/064 . . . {Polymers containing more than one epoxy group per molecule}

C08F 290/065 . . . {Polyamides; Polyesteramides; Polyimides}

C08F 290/067 . . . {Polyurethanes; Polyureas}

C08F 290/068 . . . {Polysiloxanes}

C08F 290/08 . on to polymers modified by introduction of unsaturated side groups

C08F 290/10 . . Polymers provided for in subclass C08B

C08F 290/12 . . Polymers provided for in subclasses C08C or C08F

C08F 290/122 . . . {Polymers of hydrocarbons as defined in group C08F 10/00}

C08F 290/124 . . . {Polymers of aromatic monomers as defined in group C08F 12/00}

C08F 290/126 . . . {Polymers of unsaturated carboxylic acids or derivatives thereof}

C08F 290/128 . . . {Polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00}

C08F 290/14 . . Polymers provided for in subclass C08G

C08F 290/141 . . . {Polyesters; Polycarbonates}

C08F 290/142 . . . {Polyethers}

C08F 290/144 . . . {Polymers containing more than one epoxy group per molecule}

C08F 290/145 . . . {Polyamides; Polyesteramides; Polyimides}

C08F 290/147 . . . {Polyurethanes; Polyureas}

C08F 290/148 . . . {Polysiloxanes}

C08F 291/00 **Macromolecular compounds obtained by polymerising monomers on to macromolecular compounds according to more than one of the groups C08F 251/00 to C08F 289/00**

NOTE

In C08F 291/00 the method of polymerisation may be indicated using the subdivision of C08F 2/02, C08F 2/16, C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 291/00, C08F 2/16)

C08F 291/02 . on to elastomers

C08F 291/04 . on to halogen-containing macromolecules

C08F 291/06 . on to oxygen-containing macromolecules

C08F 291/08 . . on to macromolecules containing hydroxy radicals

C08F 291/10 . . on to macromolecules containing epoxy radicals

C08F 291/12 . on to nitrogen-containing macromolecules

C08F 291/14 . on to sulfur-containing macromolecules

C08F 291/16 . on to macromolecules containing more than two metal atoms

C08F 291/18 . on to irradiated or oxidised macromolecules (epoxidised C08F 291/10)

C08F 291/185 . . {The monomer(s) not being present during the irradiation or the oxidation of the macromolecule}

C08F 292/00 **Macromolecular compounds obtained by polymerising monomers on to inorganic materials**

Block polymers

C08F 293/00 **Macromolecular compounds obtained by polymerisation on to a macromolecule having groups capable of inducing the formation of new polymer chains bound exclusively at one or both ends of the starting macromolecule** (on to polymers modified by introduction of unsaturated end groups C08F 290/02)

C08F 293/005 . {using free radical "living" or "controlled" polymerisation, e.g using a complexing agent}

C08F 295/00 **Macromolecular compounds obtained by polymerisation using successively different catalyst types without deactivating the intermediate polymer**

C08F 297/00 **Macromolecular compounds obtained by successively polymerising different monomer systems using a catalyst of the ionic or coordination type without deactivating the intermediate polymer**

C08F 297/02 . using a catalyst of the anionic type

C08F 297/023 . . {using a coupling agent}

C08F 297/026 . . {polymerising acrylic acid, methacrylic acid or derivatives thereof}

C08F 297/04 . . polymerising vinyl aromatic monomers and conjugated dienes

C08F 297/042 . . . {using a polyfunctional initiator}

C08F 297/044 . . . {using a coupling agent}

C08F 297/046 . . . {polymerising vinyl aromatic monomers and isoprene, optionally with other conjugated dienes}

C08F 297/048 . . . {polymerising vinyl aromatic monomers, conjugated dienes and polar monomers}

C08F 297/06 . using a catalyst of the coordination type

C08F 297/08 . . polymerising mono-olefins

C08F 297/083 . . . {the monomers being ethylene or propylene}

C08F 297/086 . . . . {the block polymer contains at least three blocks}

C08F 299/00 **Macromolecular compounds obtained by interreacting polymers involving only carbon-to-carbon unsaturated bond reactions, in the absence of non-macromolecular monomers** (in the presence of non-macromolecular monomers C08F 251/00 to C08F 291/00; involving other reactions C08G 81/00)

C08F 299/02 . from unsaturated polycondensates

C08F 299/022 . . {from polycondensates with side or terminal unsaturations}

C08F 299/024 . . . {the unsaturation being in acrylic or methacrylic groups}

C08F 299/026 . . {from the reaction products of polyepoxides and unsaturated monocarboxylic acids, their anhydrides, halogenides or esters with low molecular weight}

C08F 299/028 . . . {photopolymerisable compositions}

C08F 299/04 . . from polyesters

C08F 299/0407 . . . {Processes of polymerisation}

C08F 299/0414 . . . . {Suspension or emulsion polymerisation}

C08F 299/0421 . . . . {Polymerisation initiated by wave energy or particle radiation}

C08F 299/0428 . . . . . {by ultra-violet or visible light}

C08F 299/0435 . . . . . . {with sensitising agents}

C08F 299/0442 . . . {Catalysts}

C08F 299/045 . . . . {Peroxy-compounds}

C08F 299/0457 . . . . {Nitrogen containing compounds}

C08F 299/0464 . . . . {Metals or metal containing compounds}

C08F 299/0471 . . . . {Other compounds}

C08F 299/0478 . . . {Copolymers from unsaturated polyesters and low molecular monomers characterised by the monomers used}

C08F 299/0485 . . . {from polyesters with side or terminal unsaturations}

C08F 299/0492 . . . . {the unsaturation being in acrylic or methacrylic groups}

C08F 299/06 . . from polyurethanes

C08F 299/065 . . . {from polyurethanes with side or terminal unsaturations}

C08F 299/08 . . from polysiloxanes

C08F 301/00 **Macromolecular compounds not provided for in groups C08F 10/00 to C08F 299/00**

C08F 2400/00 **Characteristics for processes of polymerization**

C08F 2400/02 . Control or adjustment of polymerization parameters

C08F 2410/00 **Catalyst preparation** (not used)

C08F 2410/01 . Additive used together with the catalyst, excluding compounds containing Al or B

C08F 2410/02 . Anti-static agent incorporated into the catalyst

C08F 2410/03 . Multinuclear procatalyst, i.e.containing two or more metals, being different or not

C08F 2410/04 . Dual catalyst, i.e. use of two different catalysts, where none of the catalysts is a metallocene

C08F 2410/05 . Transitioning, i.e. transition from one catalyst to another with use of a deactivating agent

C08F 2420/00 **Metallocene catalysts** (not used)

C08F 2420/01 . Cp or analog bridged to a non-Cp X neutral donor

C08F 2420/02 . Cp or analog bridged to a non-Cp X anionic donor

C08F 2420/03 . Cp or analog not bridged to a non-Cp X ancillary neutral donor

C08F 2420/04 . Cp or analog not bridged to a non-Cp X ancillary anionic donor

C08F 2420/05 . Cp or analog where at least one of the carbon atom of the Cp ring is replaced by a heteroatom

C08F 2420/06 . Cp or analog where at least one of the carbon atoms of the ring is replaced by a heteroatom

C08F 2438/00 **Living radical polymerisation**

C08F 2438/01 . Atom Transfer Radical Polymerization [ATRP] or reverse ATRP

C08F 2438/02 . Stable Free Radical Polymerisation [SFRP]; Nitroxide Mediated Polymerisation [NMP] for e.g. using 2,2,6,6-tetramethylpiperidine-1-oxyl [TEMPO]

C08F 2438/03 . Use of a di- or tri-thiocarbonylthio compound, e.g. di- or tri-thioester, di- or tri-thiocarbamate, or a xanthate as chain transfer agent , e.g . Reversible Addition Fragmentation chain Transfer [RAFT] or Macromolecular Design via Interchange of Xanthates [MADIX]

C08F 2500/00 **Characteristics or properties of obtained polymers; Use thereof** (not used)

C08F 2500/01 . High molecular weight

C08F 2500/02 . Low molecular weight
C08F 2500/03 . Narrow molecular weight distribution
C08F 2500/04 . Broad molecular weight distribution
C08F 2500/05 . Bimodal or multimodal molecular weight distribution
C08F 2500/06 . Narrow composition distribution
C08F 2500/07 . High density
C08F 2500/08 . Low density
C08F 2500/09 . Long chain branches
C08F 2500/10 . Short chain branches
C08F 2500/11 . Melt tension or melt strength
C08F 2500/12 . Melt flow index or melt flow ratio
C08F 2500/13 . Environmental stress cracking resistance
C08F 2500/14 . Die swell or die swell ratio or swell ratio
C08F 2500/15 . Isotactic
C08F 2500/16 . Syndiotactic
C08F 2500/17 . Viscosity
C08F 2500/18 . Bulk density
C08F 2500/19 . Shear ratio or shear ratio index
C08F 2500/20 . Activation energy or enthalpy
C08F 2500/21 . Rubbery or elastomeric properties
C08F 2500/22 . Sticky polymer
C08F 2500/23 . Waxy properties
C08F 2500/24 . Polymer with special particle form or size
C08F 2500/25 . Cycloolefine
C08F 2500/26 . Use as polymer for film forming

C08F 2800/00 **Copolymer characterised by the proportions of the comonomers expressed** (not used)
C08F 2800/10 . as molar percentages
C08F 2800/20 . as weight or mass percentages

C08F 2810/00 **Chemical modification of a polymer** (not used)
C08F 2810/10 . including a reactive processing step which leads, inter alia, to morphological and/or rheological modifications, e.g. visbreaking
C08F 2810/20 . leading to a crosslinking, either explicitly or inherently
C08F 2810/30 . leading to the formation or introduction of aliphatic or alicyclic unsaturated groups
C08F 2810/40 . taking place solely at one end or both ends of the polymer backbone, i.e. not in the side or lateral chains
C08F 2810/50 . wherein the polymer is a copolymer and the modification is taking place only on one or more of the monomers present in minority