

C08L

COMPOSITIONS OF MACROMOLECULAR COMPOUNDS (compositions based on polymerisable monomers [C08F](#), [C08G](#); artificial filaments or fibres [D01F](#); textile treating compositions [D06](#))

Definition statement

This place covers:

Compositions of macromolecular compounds, either with other macromolecular compounds or with other ingredients, including compositions of polysaccharides, rubbers or natural macromolecular compounds.

The use of macromolecular substances as compounding ingredients.

The above compositions and uses may involve macromolecular substances obtained by reactions which may or may not involve only carbon-to-carbon unsaturated bonds and compositions.

[C08L](#) is the technical field for compositions of polymers. In general, compositions of single polymers in solution are classified in [C08L](#), unless otherwise mentioned in specific groups.

Relationships with other classification places

Compositions of single polymers with organic or inorganic additives are classified in [C08K](#).

Relationship with other subclasses of class [C08](#) and [C09](#)

Subclasses [C08B](#) - [C08L](#) are generally function-oriented subclasses in relation to the polymers per se, while [C09D](#) - [C09K](#) are application-oriented subclasses in relation to the said polymers (see below for the special relationship with [C09D](#) and [C09J](#)).

Polysaccharides per se and their derivatives are classified in [C08B](#).

Treatment and chemical modification of rubbers, including conjugated diene rubbers, are classified in [C08C](#) – however synthesis of rubbers and treatment or chemical modification of non-rubbers are classified in subclasses [C08F](#) or [C08G](#).

Macromolecular compounds per se obtained by reactions only involving carbon-to-carbon unsaturated bonds (usually known as addition polymers) are in [C08F](#). Compositions based on monomers of such polymers are also in [C08F](#).

Macromolecular compounds per se obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds (usually known as condensation polymers) are classified in [C08G](#). Compositions based on monomers of such polymers are also classified in [C08G](#).

Derivatives of natural macromolecular polymers per se, e.g. derived from proteins or vulcanised oils, are classified in [C08H](#).

Working-up, general processes of compounding and after-treatment are covered by subclass [C08J](#). These include making solutions, dispersions etc., plasticising, compounding with additives, e.g. colouring or masterbatching, crosslinking, manufacture of articles or shaped materials, chemical treatment or coating of such articles, making porous, cellular or foamed materials, and recovery or working up of waste materials.

Coating compositions and other polymer compositions for similar uses, e.g. paints, inks, woodstains and printing pastes, are classified in [C09D](#).

[C09G](#) covers the application of the compositions of [C08L](#) when used as polishes.

Relationships with other classification places

Adhesives and adhesive processes are classified in [C09J](#).

Materials used in applications not otherwise provided for, are classified in [C09K](#). These include sealing or anti-slip materials, heat-transfer, heat-exchange or heat-storage materials, drilling compositions, luminescent or tenebrescent materials, etching, surface-brightening or pickling materials, antioxidant materials, soil-conditioning or soil-stabilising materials, liquid crystal or fireproofing materials.

Relationship between [C08F](#), [C08G](#), [C08L](#), [C09D](#) and [C09J](#)

Polymers as such are classified in [C08F](#) or [C08G](#). Polymers compositions are classified in [C08L](#). Coating compositions or adhesive compositions are classified in [C09D](#) and [C09J](#) respectively.

[C09D](#) and [C09J](#) are seen as "related fields" of [C08L](#) which should be considered when classifying or searching for a document.

For classification:

- If the claims only pertain to a "coating composition...", only [C09D](#) symbols are given.
- If the claims pertain to a composition as such and to coating (e.g. "composition for use as coating..."), both the [C09D](#) and the corresponding [C08L](#) symbols are given.

For searching: Both [C08L](#) and [C09D](#) subclasses should be searched, regardless of the wording of the claims about a coating, since documents classified in [C08L](#) may have information relating to the use of the composition for coating.

These rules apply in analogy for the adhesive compositions of [C09J](#) and the related [C08L](#).

Multiple Classification

Biocidal, pest repellent, pest attractant, or plant growth regulatory activity of chemical compounds or preparations is further classified in [A01P](#).

Therapeutic activity of macromolecular compounds is further classified in subclass [A61P](#).

The use of cosmetics or similar toilet preparations is further classified in subclass [A61Q](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Application of macromolecular compositions as pesticides or herbicides	A01N
Application of macromolecular compositions as pharmaceutical compositions or cosmetics	A61K
Application of macromolecular compositions as explosive compositions	C06B
Application of macromolecular compositions in coating compositions	C09D
Application of macromolecular compositions in adhesive compositions	C09J
Application of macromolecular compositions in lubricants	C10M
Application of macromolecular composition in lubricants	C11D
Artificial filaments or fibres	D01F
Treatment of textiles	D06L - D06Q

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products	B32B
Liquid crystal compositions	C09K 19/00
Electrolytic processes, e.g. electrophoresis	C25

Special rules of classification

References [C08F](#), [C08G](#), [D06](#) are non-limiting in the subclass [C08L](#). CPC will be updated/corrected once this inconsistency in IPC is resolved.

Classification guidance:

- Compositions of single polymers with organic or inorganic additives are not classified in this subclass but in [C08K](#).
- Compositions are classified according to the relative proportions by weight of only the macromolecular constituents; a single symbol is given according to the macromolecular constituent present in the highest proportion; if some or all of these constituents are present in equal proportions, the composition is classified according to each of these constituents.
- In the case of copolymers, the main group in [C08L](#) is selected on the basis of the monomer in majority for each macromolecular component of the composition, unless otherwise stated.
- The entire composition is also classified under the form of a C-Set (see C-Sets classification below).
- All hydrogels including those from a single polymer are classified in the [C08L 1/00 - C08L 5/00](#) and [C08L 89/00 - C08L 97/00](#) group corresponding to the matrix polymer and [C08J 3/075](#) and [C08J 2300/00 - C08J 2399/00](#) (see definitions of [C08L 1/00 - C08L 5/00](#) and [C08L 89/00 - C08L 97/00](#)).
- While crosslinked hydrogels are classified in [C08B](#), their compositions are in [C08L](#). The crosslinking process for making gel/hydrogel is classified in [C08J 3/24](#).

Allocation of indexing codes:

- Orthogonal Indexing Codes [C08L 2201/00 - C08L 2555/86](#) are used to specify the role, applications and the characteristics of the polymer compositions.
- Orthogonal Indexing codes may be allocated in conjunction with C-sets symbols. In these situations, allocations of specific indexing codes are indicated with the related C-Sets in C-Sets classification.
- Breakdown indexing codes in [C08L 1/00 - C08L 101/16](#) are used as single symbols for classification, but they are not used in forming of C-Set symbols (See C-Sets classification below).

Orthogonal symbols [C08L 2666/00 - C08L 2666/86](#) are not used for classification after April 2012. However, they can be used for C-Sets searches for the documents classified prior to April 2012. See C-sets search below.

Combination sets (C-Sets):

In this subclass, C-Sets classification is applied to the following groups, listed in the table below, if the document discloses a pertinent combination of technical features that cannot be covered by the allocation of a single symbol. The fourth column of the table indicates the place where the detailed information about the C-Sets construction and the associated syntax rules can be found, in the definition section "Special rules of classification".

C-SETS ID	BASE SYMBOL	SUBSEQUENT SYMBOLS	C-SETS FORMULA; LOCATION OF C-SETS RULES

Special rules of classification

#C8La	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	(C08L , C08L , ...); a composition comprising two or more polymers; see C08L
#C8La(Si)	C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes)	C08L 83/02 - C08L 83/16 , C08L 83/00	(C08L , C08L 83/02 - C08L 83/16 , C08L 83/00 , ...); a composition comprising one non Si-based polymer in majority and two or more Si-based polymers; see C08L
#C8La(Si)2	C08L 83/02 - C08L 83/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes)	(C08L 83/02 - C08L 83/16 , C08L 83/00 , ..., C08L ,...); a composition comprising one Si-based polymer in majority with one or more Si-based polymer(s) and optionally non Si-based polymer(s); see C08L 83/00
#C8Lb	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C08L , C08L ,... C08K); a composition comprising two or more polymers with additive(s); see C08L
#C8Lb(Si)	C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes)	C08L 83/02 - C08L 83/16 , C08L 83/00 , C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C08L , C08L 83/02 - C08L 83/16 , C08L 83/00 , ..., C08K , ...); a composition comprising one non Si-based polymer in majority and two or more Si-based polymers, and additive(s); see C08L
#C8Lb(Si)2	C08L 83/02 - C08L 83/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 , (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C08L 83/02 - C08L 83/16 , C08L 83/00 ,..., C08L , ... C08K , ...); a composition comprising one Si-based polymer in majority with one or more Si-based polymer(s) and optionally non Si-based polymer(s) and additive(s); see C08L 83/00
#C8Lz	C08L	C08L 2666/00 - C08L 2666/26	(C08L , C08L 2666/00 - C08L 2666/26); a composition comprising two or more polymers; see C08L
#C8Ka	C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	(C08K , C08L); an additive with a single polymer; see C08K

Special rules of classification

#C9Dc	C09D 101/00 - C09D 201/10	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	(C09D , C08L , ...); a coating composition of two or more polymers; see C09D 101/00
#C9Dc(Si)	C09D 101/00 - C09D 201/10 (excluding C09D 183/02 - C09D 183/16)	C08L 83/02 - C08L 83/16 , C08L 83/00	(C09D , C08L 83/02 - C08L 83/16 , C08L 83/00 , ...); a coating composition comprising one non Si-based polymer in majority and two or more Si-based polymers; see C09D 101/00
#C9Dc(Si)2	C09D 183/02 - C09D 183/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes)	(C09D 183/02 - C09D 183/16 , C08L 83/00 , ..., C08L , ...); a coating composition comprising one Si-based polymer in majority with one or more Si-based polymers and optionally non Si-based polymer(s); see C09D 183/00
#C9Df	C09D 101/00 - C09D 201/10	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09D , C08L ..., C08K , ...); a coating composition of two or more polymers with additive(s); see C09D 101/00
#C9Df(Si)	C09D 101/00 - C09D 201/10 (excluding C09D 183/02 - C09D 183/16)	C08L 83/02 - C08L 83/16 , C08L 83/00 , C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09D , C08L 83/02 - C08L 83/16 , C08L 83/00 , ..., C08K , ...); a coating composition comprising one non Si-based polymer in majority and two or more Si-based polymers and additive(s); see C09D 101/00
#C9Df(Si)2	C09D 183/02 - C09D 183/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09D 183/02 - C09D 183/16 , C08L 83/00 , ..., C08L ,... C08K , ...); a coating composition comprising one Si-based polymer in majority with one or more Si-based polymers and optionally non Si-based polymer(s) and additive(s); see C09D 183/00
#C9Dz	C09D 101/00 - C09D 201/10	C08L 2666/00 - C08L 2666/26	(C09D , C08L 2666/00 - C08L 2666/26); a coating composition of two or more polymers; see C09D 101/00

Special rules of classification

#C9Jc	C09J 101/00 - C09J 201/10	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes)	(C09J , C08L , ...); an adhesive composition of two or more polymers; see C09J 101/00
#C9Jc(Si)	C09J 101/00 - C09J 201/10 (excluding C09J 183/02 - C09J 183/16)	C08L 83/02 - C08L 83/16 , C08L 83/00	(C09J , C08L 83/02 - C08L 83/16 , C08L 83/00 , ...); an adhesive composition comprising one non Si-based polymer in majority and two or more Si-based polymers; see C09J 101/00
#C9Jc(Si)2	C09J 183/02 - C09J 183/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes)	(C09J 183/02 - C09J 183/16 , C08L 83/00 , ..., C08L , ...); an adhesive composition comprising one Si-based polymer in majority and one or more Si-based polymer(s) and optionally non-Si polymer(s); see C09J 183/00
#C9Jf	C09J 101/00 - C09J 201/10	C08L 1/00 - C08L 101/16 (excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09J , C08L ,..., C08K ,...); an adhesive composition comprising two or more polymers with additive(s); see C09J 101/00
#C9Jf(Si)	C09J 101/00 - C09J 201/10 (excluding C09J 183/02 - C09J 183/16)	C08L 83/02 - C08L 83/16 , C08L 83/00 , C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09J , C08L 83/02 - C08L 83/16 , C08L 83/00 , ..., C08K , ...); an adhesive composition comprising one non Si- based polymer in majority and two or more Si-based polymers and additive(s); see C09J 101/00
#C9Jf(Si)2	C09J 183/02 - C09J 183/16	C08L 83/00 and optionally C08L 1/00 - C08L 101/16 (excluding C08L 83/02 - C08L 83/16 and excluding breakdown indexing codes), C08K 3/00 - C08K 13/08 (excluding breakdown indexing codes)	(C09J 183/02 - C09J 183/16 , C08L 83/00 , ..., C08L ,... C08K , ...); an adhesive composition comprising one Si-based polymer in majority with one or more Si-based polymer(s) and optionally non Si-based polymer(s) and additive(s); see C09J 183/00
#C9Jz	C09J 101/00 - C09J 201/10	C08L 2666/00 - C08L 2666/26	(C09J , C08L 2666/00 - C08L 2666/26); an adhesive composition of two or more polymers; see C09J 101/00

Special rules of classification

The specific C-Sets rule is located at only one place of the base symbol in the section "Special rules of classification" in the definition. If the C-Sets rule is applicable to all groups of a subclass, it is located at the subclass level only. If the same C-Sets rule is applicable to multiple groups or subgroups within the same subclass, the C-Sets rule is placed at the highest group or subgroup of the multiple groups.

C-Sets statement: #C8La and #C8Lb

- In groups [C08L 1/00](#) - [C08L 101/16](#), the compositions of macromolecular compounds and any additives(s) are classified in the form of C-Sets.
- In #C8La, the base symbol, representing the major polymer of the composition (in term of weight percentage) is taken from the groups [C08L 1/00](#) - [C08L 101/16](#), whereas the subsequent symbol(s) representing the polymer(s) as minor component(s) of the composition (in term of weight percentage) is (are) taken from the groups [C08L 1/00](#) - [C08L 101/16](#).
- In the case that two polymers are present in equal amounts (50:50), two C-sets are given.
- In #C8Lb, in addition to the polymers as shown in #C8La, further subsequent symbol(s), representing compound(s) used as an additive(s), are taken from the groups [C08K 3/00](#) - [C08K 13/08](#) (for the additive(s)).

C-Sets syntax rules:

- Each of these C-Sets should contain two or more symbols from [C08L](#).
- C-Sets of #C8La shall contain two or more symbols.
- C-Sets of #C8Lb shall contain three or more symbols.
- Duplicate symbols are allowed in these C-Sets.
- Breakdown indexing codes are not allowed as either base or subsequent symbols.
- The order of [C08L](#) symbols in C-Sets of # C8La and # C8Lb is relevant as it reflects the relative amounts of the polymers. The [C08K](#) symbols for the additives always appear after the symbols for the polymers ([C08L](#)). The order of [C08K](#) symbols of additives is not relevant if there are more than one additive in the composition. (Note: This does not apply for #C8Ka. See #C8Ka rules in [C08K](#)).
- In addition, both #C8La and #C8Lb C-Sets can also be allocated in conjunction with orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#). For example, a composition containing a polyamide in majority, a polyester and a polyethylene is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 23/06](#)) and in [C08L 2205/03](#).
- When the composition comprises one Si-based polymer of [C08L 83/02](#) - [C08L 83/16](#), one additional symbol is allocated in addition to the C-Set, which is selected from the range [C08G 77/02](#) - [C08G 77/62](#), corresponding to the Si-based polymer component detailed in the C-Set.
- In all cases, a single symbol is also given according to the macromolecular constituent present in the highest proportion.

C-Sets examples:

- #C8La : A composition of polybutadiene rubber ([C08L 9/00](#)) (present in majority) combined with epoxy resin ([C08L 63/00](#)) is classified as ([C08L 9/00](#), [C08L 63/00](#)).
- #C8La : A composition of 50 wt.% of polybutadiene rubber ([C08L 9/00](#)) combined with 50 wt.% of epoxy resin ([C08L 63/00](#)) is classified as ([C08L 9/00](#), [C08L 63/00](#)) and ([C08L 63/00](#), [C08L 9/00](#)). Two C-sets are allocated because both materials are in equal amounts.
- #C8La : A composition of PET and PBT is classified as ([C08L 67/02](#), [C08L 67/02](#)).
- #C8La : Blends of bisphenol A based polycarbonate with a tetrachloro BPA based polycarbonate is classified as ([C08L 69/00](#), [C08L 69/00](#)). Duplicate symbols are allowed if two different polymers in the composition have same symbols.
- #C8Lb: A composition of a thermoplastic Nylon 6,6 ([C08L 77/06](#)) (present in majority) combined with a thermoplastic polyester resin ([C08L 67/00](#)), a reinforcing or bulking filler ([C08K 7/02](#)), and a triarylphosphate fire retardant ([C08K 5/523](#)) is classified as ([C08L 77/06](#), [C08L 67/00](#), [C08K 7/02](#), [C08K 5/523](#))

Special rules of classification

C-Sets statement: #C8La(Si) and #C8Lb(Si)

- #C8La (Si) and #C8Lb(Si) are a special use of #C8La and #C8Lb for a composition comprising two or more Si-based macromolecular compounds in the sense of [C08G 77/00](#).
- In groups [C08L 1/00](#) - [C08L 101/16](#), the feature relating to a composition comprising one non Si-based polymer in majority with two or more Si-based macromolecular compounds is classified in the form of C-Sets.
- In #C8La (Si) and #C8Lb(Si), the base symbol, representing the polymer in majority, is taken from the groups [C08L 1/00](#) - [C08L 101/10](#) (excluding [C08L 83/02](#) - [C08L 83/16](#)), whereas the subsequent symbols representing the polymers in minority are taken from the groups [C08L 83/02](#) - [C08L 83/16](#) (for the Si-based macromolecular compound in majority), and from [C08L 83/00](#) (for the Si-based polymer(s) in minority).
- In addition, #C8Lb(Si) further includes subsequent symbols representing compound(s) used as an additive(s) from the groups [C08K 3/00](#) - [C08K 13/08](#).
- In addition to C-Sets, one or more additional symbols are allocated, which are selected from the range [C08G 77/02](#) - [C08G 77/62](#) corresponding to each of the Si-based macromolecular compound components detailed in the C-Set.
- In all cases, a single symbol is also given according to the macromolecular constituent present in the highest proportion.

C-Sets syntax rules:

- C-Sets of #C8La(Si) shall contain at least three symbols.
- C-Sets of #C8Lb(Si) shall contain at least four symbols.
- While duplicate symbols are allowed in these C-Sets, only one symbol selected from the range [C08L 83/02](#) - [C08L 83/16](#) is permitted per C-Set.
- Breakdown codes are not allowed either as base or as subsequent symbols.
- The order of [C08L](#) symbols in C-Sets of # C8La(Si) and #C8Lb(Si) is relevant as it reflects the relative amounts of the polymers. The [C08K](#) symbols for the additives always appear after the symbols for the polymers ([C08L](#)). The order of [C08K](#) symbols of additives is not relevant if there is more than one additive in the composition.

C-Sets examples:

#C8La (Si): A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#), an amine-substituted polysiloxane in accordance with [C08G 77/26](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) is classified as ([C08L 67/02](#), [C08L 83/08](#), [C08L 83/00](#)) and in [C08G 77/14](#)(ADD) and [C08G 77/26](#) (ADD).

#C8Lb(Si): A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#), an amine-substituted polysiloxane in accordance with [C08G 77/26](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and carbon black is classified as ([C08L 67/02](#), [C08L 83/08](#), [C08L 83/00](#), [C08K 3/04](#)) and in [C08G 77/14](#) (ADD) and [C08G 77/26](#) (ADD).

Also see [C08L 83/00](#) for more examples of compositions comprising Si-containing polymers.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#), [C08L 83/00](#) and related subclasses e.g. [C09D](#) and [C09J](#).

In addition, Search rule #C8Lz, #C9Dz (see [C09D](#)), and #C9Jz (see [C09J](#)) may be followed to search for polymers in documents classified prior to April 2012.

Search rule #C8Lz

To search a composition of two polymers, build search queries as follows:([C08L](#) of the polymer in majority, [C08L 2666/00](#) - [C08L 2666/26](#)).

The subsequent symbol refers to the appropriate subgroup of [C08L 2666/02](#) - [C08L 2666/26](#) according to the last place rule.

Special rules of classification

The search statement can also be further refined by searching the polymer in minority by using its [C08L](#) as ADD (for documents classified between 2003 and April 2012).

In the case where two polymers are present in equal amounts (50:50), either polymer can be treated as majority, build to two C-Sets search queries wherein either polymer as majority.

Example 1: A composition comprising polystyrene in majority ([C08L 25/06](#)) and polyester (Polycaprolactone) ([C08L 2666/18](#)) in minority

- Search Queries: ([C08L 25/06](#), [C08L 2666/18](#)), and optionally [C08L 67/04](#) (ADD).

Example 2: A composition comprising polystyrene in majority ([C08L 25/06](#)) and polymethylmethacrylate ([C08L 2666/04](#)) in minority.

- Search queries: ([C08L 25/06](#), [C08L 2666/04](#)), and optionally [C08L 33/12](#) (ADD).

#C8Lz search rules do not apply when polysiloxane is in majority and when there is a second polysiloxane, [C08L 83/00](#) is used as subsequent symbol(s) in that case.

Example 3: A composition comprising epoxy functional polysiloxane ([C08L 83/06](#)) in majority and polydimethylsiloxane in minority ([C08L 83/00](#)).

- Search queries: ([C08L 83/06](#), [C08L 83/00](#)).

To search for a composition of three or more polymers, build search queries as follows: ([C08L](#) of the polymer in majority, an appropriate subgroup of [C08L 2666/02](#) - [C08L 2666/26](#)) and [C08L 2205/03](#) (ADD)

The search statement can also be further refined by searching the polymers in minority by using their [C08L](#) as ADD for documents classified between 2003 and April 2012.

In the case of a composition of three or more polymers, the subsequent symbol is taken from the group of [C08L 2666/00](#) - [C08L 2666/26](#) that covers all minority polymers.

Example 4: A composition comprising polystyrene in majority ([C08L 25/06](#)) and polyester (Polycaprolactone) ([C08L 2666/18](#)) and polyamide (Nylon) ([C08L 2666/20](#)) in minority.

- Search queries: ([C08L 25/06](#), [C08L 2666/14](#)) and [C08L 2205/03](#) (ADD), and optionally [C08L 67/04](#) (ADD) and [C08L 77/06](#) (ADD)

Example 5: A composition comprising polystyrene in majority ([C08L 25/06](#)) and polyester (Polycaprolactone) ([C08L 2666/18](#)) and natural rubber ([C08L 2666/08](#)) in minority.

- Search queries: ([C08L 25/06](#), [C08L 2666/02](#)) and [C08L 2205/03](#) (ADD), and optionally [C08L 67/04](#) (ADD) and [C08L 7/00](#) (ADD)

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Addition polymers	Polymers in which unsaturated monomer molecules join together to form a polymer in which the molecular formula of the repeat unit is identical (except for the double bond) with that of the monomer.
Aliphatic radical	Means an acyclic or non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to: an element other than carbon; a carbon atom having a double bond to one atom other than carbon; an aromatic carbocyclic ring or a heterocyclic ring. Examples: Polymers of $\text{CH}_2=\text{CH}-\text{O}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{COO}-\text{CH}_2-\text{CH}_2-\text{OH}$ are classified in group C08F 16/28 ; $\text{CH}_2=\text{CH}-\text{CO}-\text{CH}=\text{CH}_2$ are classified in group C08F 16/36 ; $\text{CH}_2=\text{CH}-\text{C}_6\text{H}_4-\text{Cl}$ are classified in group C08F 12/18 .

Block polymers	Polymers formed by polymerization of monomers on to a macromolecule having groups capable of inducing the formation of new polymer chains bound at one or both ends of the starting macromolecule, or by polymerization using successively different catalyst types or successively different monomer systems without deactivating the intermediate polymer.
Condensation polymers	Polymers in which water or some other simple molecule is eliminated from 2 or more monomer molecules as they combine to form the polymer or crosslinks between polymer chains.
Copolymer	Usually denotes a polymer of 2 chemically distinct monomers, and sometimes denotes a terpolymer containing more than 2 types of monomer unit.
Graft polymers	Macromolecular compounds obtained by polymerizing monomers on to preformed polymers or on to inorganic materials. Such preformed polymers could be rubbers, polysaccharides, condensation polymers, homopolymers or copolymers of the addition polymer type.
Homopolymers	Polymers resulting from the polymerisation of a single monomer or polymer with a single type of repeating unit.
Repeat(ing) unit	The unit in an addition polymer which is repeated throughout the molecule; for example in polyethylene the repeat unit is: $-\text{CH}_2-\text{CH}_2-$
Rubber	a. Natural or conjugated diene rubbers; b. Rubber in general.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

ABS	Acrylonitrile-butadiene-styrene copolymer
AIBN	Azoisobutyronitrile (initiator)
AMMA	Acrylonitrile-methyl methacrylate copolymer
AMPS	Acrylamidomethylpropanesulfonic acid
BR	Butadiene rubber
CTFE	Chloro-trifluoroethylene
DVB	Divinylbenzene
EAA	Ethylene-acrylic acid copolymer
EPDM	Ethylene-propylene-diene-monomer
EPR	Ethylene-propylene rubber
EVA	Ethylene-vinyl acetate copolymer
EVOH	Ethylene-vinyl alcohol copolymer
HDPE	High-density polyethylene
HEMA	Hydroxyethyl methacrylate
LDPE	Low-density polyethylene
LLDPE	Linear low-density polyethylene
PAN	Polyacrylonitrile
PEEK	Polyetherether ketone, also named polyetheresterketone
PEI	Polyethylenimine

PMMA	Polymethyl methacrylate
PPE	Polyphenylene ether
PPO	Polyphenylene oxide or polypropylene oxide
PPS	Polyphenylene sulphide
PTFE	Polytetrafluoroethylene
PUR	Polyurethane
PVA	Polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate

C08L 1/00

Compositions of cellulose, modified cellulose or cellulose derivatives

Definition statement

This place covers:

Compositions of cellulose, modified cellulose or cellulose derivatives corresponding to the following main groups: [C08B 1/00](#) - [C08B 17/00](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08B 15/005](#) and [C08B 15/10](#) as they are considered as polysaccharide derivatives per se.

Coating compositions based on such polysaccharides are classified in [C09D 101/00](#).

Adhesives or binders based on such polysaccharides are classified in

[C09J 101/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Composition based on lignin-containing materials, e.g. lignin, cork, lignocellulose or wood	C08L 97/00
Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 87/00 , e.g. flours	C08L 99/00
Cellulose or derivatives thereof per se	C08B 1/00 - C08B 17/06
Coating composition comprising cellulose or cellulose derivative	C09D 101/00 - C09D 101/32
Adhesive or binder composition comprising cellulose or cellulose derivative	C09J 101/00 - C09J 101/32

Special rules of classification

Last place priority rule:

Within each group of the subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Cellulose or derivatives thereof either in solution or together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules outlined in subclass [C08L](#).
- Uncrosslinked hydrogels are classified in [C08L 1/00](#) - [C08L 1/32](#), together with [C08J 3/075](#) and [C08J 2301/02](#) - [C08J 2301/32](#).

Example: Hydrogels of cellulose are classified in [C08L 1/02](#), [C08J 3/075](#) and [C08J 2301/02](#).

The crosslinking process is classified in [C08J 3/24](#) (see definition of [C08J 3/00](#)).

- While crosslinked hydrogels are classified in [C08B](#), their compositions are in [C08L](#).

Example: Crosslinking of cellulose derivative is classified in [C08B 15/005](#), the composition comprising crosslinked cellulose is classified in [C08L 1/08](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- The compositions of this group are classified according to the relative proportions by weight percentage of only the macromolecular constituents.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- Compositions containing a cellulose and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets ((i.e. #C8Lb and #C8Ka. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclass [C08L](#) and [C08K](#).

Example 1: Cellulose acetate in solution is classified in [C08L 1/12](#).

Example 2: A composition consisting of 60 wt.% of microcrystalline cellulose and 40 wt.% of maltodextrin is classified as ([C08L 1/04](#), [C08L 3/02](#)).

Example 3: A composition consisting of carboxymethyl cellulose and glycerol (plasticiser) is classified as ([C08K 5/053](#), [C08L 1/286](#)) and in [C08K 5/0016](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 3/00

Compositions of starch, amylose or amylopectin or of their derivatives or degradation products

Definition statement

This place covers:

Compositions of starch, amylose or amylopectin or of their derivatives or degradation products corresponding to the following groups:

[C08B 30/00](#) - [C08B 35/08](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08B 31/003](#) as they are considered as polysaccharide derivatives per se.

Coating compositions based on such starches are classified in [C09D 103/00](#).

Adhesives or binders based on such starches are classified in [C09J 103/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Starch and derivatives thereof per se	C08B 30/00 - C08B 35/08
Coating composition comprising starch, amylose, amylopectin or their derivatives or degradation products	C09D 103/00 - C09D 103/20
Adhesive/Binder composition comprising cellulose or cellulose derivative starch, amylose, amylopectin or their derivatives or degradation products	C09J 103/00 - C09J 103/20

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Starch or derivatives thereof either in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of [C08L](#).
- Uncrosslinked hydrogels are classified in [C08L 3/00](#) - [C08L 3/20](#) together with [C08J 3/075](#) and in [C08J 2303/02](#) - [C08J 2303/20](#). Example: Hydrogels of oxidised starch are classified in [C08L 3/10](#), [C08J 3/075](#) and [C08J 2303/10](#).
- The crosslinking process is classified in [C08J 3/24](#) (see definition of [C08J 3/00](#)) While crosslinked hydrogels are classified in [C08B](#), their compositions are classified in [C08L](#). Example: Crosslinking of starch is classified in [C08B 31/003](#), the composition comprising crosslinked starch is classified in [C08L 3/04](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- The compositions of this group are classified according to the relative proportions by weight percentage of only the macromolecular constituents.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- Compositions containing a starch and an inorganic or non-macromolecular organic additive as compounding agent are classified in classified in the form of C-Sets (i.e. #C8Ka and #C8Kb, if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules in subclasses [C08K](#) and [C08L](#).

Example 1: Starch acetate in solution is classified in [C08L 3/06](#).

Example 2: A composition consisting of 60 wt.% of crosslinked starch and 40 wt.% of maltodextrin is classified as ([C08L 3/04](#), [C08L 3/02](#)) and in [C08L 2205/02](#).

Example 3: A composition consisting of crosslinked carboxymethyl starch and crosslinked glycerol (plasticiser) is classified as ([C08K 5/053](#), [C08L 3/08](#)) and in [C08K 5/0016](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 5/00

Compositions of polysaccharides or of their derivatives not provided for in groups [C08L 1/00](#) or [C08L 3/00](#)

Definition statement

This place covers:

Compositions of polysaccharides, other than cellulose and starch, and their derivatives corresponding to the following groups:

[C08B 37/00](#) - [C08B 37/0096](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08B](#) as they are considered as polysaccharide derivatives per se.

Coating compositions based on such polysaccharides are classified in [C09D 105/00](#).

Adhesives or binders based on such polysaccharides are classified in [C09J 105/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polysaccharides per se	C08B 37/00 - C08B 37/0096
Coating composition comprising polysaccharide or polysaccharide derivative	C09D 105/00 - C09D 105/16
Adhesive/Binder composition comprising polysaccharide or polysaccharide derivative	C09J 105/00 - C09J 105/16

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.

- Polysaccharides or derivatives thereof-either in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of [C08L](#).
- Uncrosslinked hydrogels are classified in [C08L 5/00](#) - [C08L 5/16](#) together with [C08J 3/075](#) and in [C08J 2305/02](#) - [C08J 2305/16](#).

Example: Hydrogels of alginate are classified in [C08L 5/04](#), [C08J 3/075](#) and [C08J 2305/04](#).

- The crosslinking process is classified in [C08J 3/24](#).

Example: Crosslinking of Dextran is classified in [C08B 37/0021](#); the composition comprising crosslinked dextran is classified in [C08L 5/02](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- The compositions of this group are classified according to the relative proportions by weight percentage of only the macromolecular constituents.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- Compositions containing a polysaccharide and an inorganic or non-macromolecular organic additive as compounding agent are classified in [C08K](#) as indicated in the rules for [C08L](#) in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules in subclasses [C08K](#) and [C08L](#).

Example 1: Ethers of cyclodextrin in solution are classified in [C08L 5/16](#).

Example 2: A composition consisting of 60 wt.% of hyaluronic acid and 40 wt.% of maltodextrin is classified as ([C08L 5/08](#), [C08L 3/02](#)).

Example 3: A composition consisting of carboxymethyl dextran and glycerol (plasticiser) is classified as ([C08L 5/02](#), [C08K 5/053](#)) and in [C08K 5/0016](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 7/00

Compositions of natural rubber

Definition statement

This place covers:

Compositions of natural rubber or natural rubber latex.

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 9/00

Compositions of homopolymers or copolymers of conjugated diene hydrocarbons

Definition statement

This place covers:

- Compositions based on diene rubbers corresponding to polymers of groups [C08F 36/00](#), [C08F 136/00](#) and [C08F 236/00](#)
- Compositions of homopolymers or copolymers of isoprene, butadiene and their latexes
- Compositions of copolymers with acrylonitrile or latex
- Compositions of copolymers with styrene or latex

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

Example 1: A blend of 60 parts polybutadiene ([C08L 9/00](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 9/00](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts polybutadiene ([C08L 9/00](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 9/00](#), [C08L 77/00](#)) and as ([C08L 77/00](#), [C08L 9/00](#)).

Example 3: A blend of 60 parts polybutadiene ([C08L 9/00](#)), 40 parts natural rubber ([C08L 7/00](#)) and 40 parts of silica is classified as ([C08L 9/00](#), [C08L 7/00](#), [C08K 3/36](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 11/00

Compositions of homopolymers or copolymers of chloroprene

Definition statement

This place covers:

Compositions of homopolymers or copolymers of chloroprene or latex corresponding to groups [C08F 36/16](#), [C08F 36/18](#), [C08F 136/16](#), [C08F 136/18](#), [C08F 236/16](#) and [C08F 236/18](#)

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 13/00

Compositions of rubbers containing carboxyl groups

Definition statement

This place covers:

Compositions of rubbers, corresponding to polymers of groups [C08F 36/00](#), [C08F 136/00](#) and [C08F 236/00](#) containing carboxyl groups containing monomers in minority, e.g. acrylic acid or acrylic acid esters.

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 15/00

Compositions of rubber derivatives ([C08L 11/00](#), [C08L 13/00](#) take precedence)

Definition statement

This place covers:

Compositions of rubber derivatives, i.e., e.g. rubber treated according to [C08C](#)

References

Limiting references

This place does not cover:

Compositions of homopolymers or copolymers of chloroprene	C08L 11/00
Compositions of rubbers containing carboxyl groups	C08L 13/00

Special rules of classification

An additional symbol in [C08C](#) may be given for the treatment.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 17/00

Compositions of reclaimed rubber

Definition statement

This place covers:

Compositions of reclaimed rubber, i.e., e.g. reuse of unvulcanised or devulcanised rubber.

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 19/00

Compositions of rubbers not provided for in groups [C08L 7/00](#) - [C08L 17/00](#)

Definition statement

This place covers:

Compositions comprising vulcanised or crosslinked rubber

Compositions containing rubbers with functional groups e.g. telechelic diene rubbers.

Relationships with other classification places

- Treatment or chemical modification of diene rubber is classified in [C08C 1/00](#) - [C08C 19/44](#).
- Polymerisation of diene polymers is classified in [C08F 36/00](#), [C08F 136/00](#) or [C08F 236/00](#).
- Preparation of polymer compositions is classified in [C08J 3/20](#) - [C08J 3/22](#).
- Recycling of polymers is classified in [C08J 11/04](#) - [C08J 11/28](#).
- Coating compositions comprising diene rubbers or their derivatives are classified in [C09D 107/00](#) - [C09D 121/00](#).
- Adhesive compositions comprising diene rubbers or their derivatives are classified in [C09J 107/00](#) - [C09J 121/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of diene rubbers or their derivatives in minority	C08L 7/00 - C08L 21/00
Ethene-propene or ethene-propene-diene copolymers	C08L 23/16
Copolymers of isobutene; Butyl rubber; Homopolymers or copolymers of other iso-olefins	C08L 23/22
Compositions of polyacrylates	C08L 33/00
Compositions of unconjugated dienes	C08L 47/00
Compositions of graft copolymers	C08L 51/00
Compositions of block copolymers	C08L 53/00
Compositions of ABS	C08L 55/02
Chemical compositions of tyres	B60C 1/00
Inorganic or non-macromolecular organic materials as compounding agents	C08K

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

"rubber" includes:

- a. natural or conjugated diene rubbers;
- b. rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for compositions of such macromolecular compounds).

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

BR	Butadiene rubber
CR	Chloroprene rubber
EPM	Ethene propene rubber

EPDM	Ethene propene diene rubber
IR	Isoprene rubber
IIR	Butyl rubber
NBR	Acrylonitrile butadiene rubber
NR	Natural rubber
SAN	Styrene acrylonitrile copolymer
SBR	Styrene butadiene rubber

C08L 21/00

Compositions of unspecified rubbers

Definition statement

This place covers:

Compositions of rubbers not provided for in groups [C08L 7/00](#) - [C08L 19/02](#).

C08L 23/00

Compositions of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-corresponding to-carbon double bond; Compositions of derivatives of such polymers corresponding to groups [C08F 10/00](#), [C08F 110/00](#) and [C08F 210/00](#).

Relationships with other classification places

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Application of macromolecular compositions as pesticides or herbicides	A01N
Application of macromolecular compositions as pharmaceutical compositions or cosmetics	A61K
Application of macromolecular compositions as explosive compositions	C06B
Application of macromolecular compositions in coating compositions	C09D 123/00

Application of macromolecular compositions in adhesive compositions	C09J 123/00
Application of macromolecular compositions in lubricants	C10M

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products	B32B
Chemical compositions of tyres	B60C 1/00
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Detergents	C11D
Artificial filaments or fibres	D01F

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

When the copolymer can be covered by two or more subgroups, then the lowest alternative subgroup (last place) is used, i.e. terpolymers of ethene, acrylic ester and vinyl acetate would be classified in [C08L 23/0869](#) instead of in [C08L 23/0853](#), even when vinyl acetate would be present in a higher amount than acrylic ester.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, i.e. if the examples only describe compositions of polypropylene, but subject matter of the claim is a composition of polyolefin, the document is classified as composition of polypropylene [C08L 23/12](#).
- Single polymers and their preparation are to be classified in [C08F 210/00](#) on the basis of sufficient disclosure in the document.

Choice of symbol for copolymer

- A composition of copolymers is given the symbol according to the monomer in majority, except when there is a lower symbol that specifies the comonomer in minority (see last place rule), i.e. ethene butene copolymers (ethene in majority) would be classified in [C08L 23/0815](#), and not in [C08L 23/20](#), but vinyl acetate (ethene in majority) would be classified in [C08L 23/0853](#), but not in either of [C08L 23/08](#) or [C08L 31/04](#).
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 23/00](#) relates to compositions comprising two or more polymers. The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its minor component(s).

- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

C-Sets examples:

Example 1: A blend of 60 parts polyethylene ([C08L 23/06](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 23/06](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts polyethylene ([C08L 23/06](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 23/06](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 23/06](#)).

Example 3: A composition based on polyethylene and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 23/06](#)). If this composition contains also a polyamide, then the classification will be ([C08L 23/06](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first polyethylene ([C08L 23/04](#)) and containing a second polyethylene, a phenol and silica is classified as ([C08L 23/04](#), [C08L 23/04](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/02](#).

Example 5: A composition containing a polyamide in majority, a polyester and a polyethylene is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 23/06](#)) and in [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same dot group, for example compositions of two ionomers, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for a compositions of a K⁺ and a Na⁺ ionomer therefore would be ([C08L 23/0876](#), [C08L 23/0876](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, i.e. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene or isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of ethylene and carboxylic acid containing copolymers to form salts, i.e. ionomers (C08L 23/0876) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

LDPE	Low density polyethylene, prepared by radical process
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 23/02

not modified by chemical after-treatment

Special rules of classification

This group should only be used in exceptional cases, i.e. no or too many examples.

C08L 23/025

Copolymers of unspecified olefins with monomers other than olefins

Special rules of classification

This group should only be used in exceptional cases, i.e. no or too many examples.

C08L 23/04

Homopolymers or copolymers of ethene

Special rules of classification

This place should only be used when there are examples of copolymers of both (a) [C08L 23/06](#) or [C08L 23/0807](#) and (b) [C08L 23/0846](#).

C08L 23/06

Polyethene

Special rules of classification

Homopolymers can be further characterised by Indexing Codes [C08L 2207/062](#), [C08L 2207/066](#), [C08L 2207/068](#), [C08L 2207/07](#) or [C08L 2314/02](#) - [C08L 2314/08](#).

C08L 23/08

Copolymers of ethene ([C08L 23/16](#) takes precedence)

References

Limiting references

This place does not cover:

Ethene-propene or ethene-propene-diene copolymers	C08L 23/16
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Special rules of classification

This place covers ethene copolymers when ethene is clearly the major component, whereas ethene-propene copolymers with similar amounts of each monomer are classified in [C08L 23/16](#).

C08L 23/0807

with unsaturated hydrocarbons only containing four or more carbon atoms

Special rules of classification

This group can be further characterised by Indexing Codes [C08L 2207/062](#) - [C08L 2207/07](#) or [C08L 2314/02](#) - [C08L 2314/08](#).

It is preferable to classify in [C08L 23/0815](#) when possible.

C08L 23/0815

{with aliphatic 1-olefins containing one carbon-to-carbon double bond}

Definition statement

This place covers:

Copolymers of ethene with aliphatic 1-olefins containing one carbon-to-carbon double bond, e.g. alpha-olefins.

Special rules of classification

This place can be further characterised by indexing codes [C08L 2207/062](#) - [C08L 2207/07](#) or [C08L 2314/02](#) - [C08L 2314/08](#).

This place covers ethene-propene when propene is clearly a minor component, e.g. LLDPE; whereas ethene-propene copolymers with similar amounts of each monomer or ethene-propene rubber [EPR] are classified in [C08L 23/16](#).

C08L 23/0823

{with aliphatic cyclic olefins}

Definition statement

This place covers:

Copolymers of ethene with aliphatic cyclic olefins, e.g. ethylene norbornene copolymers or copolymers of ethene and cyclohexene.

C08L 23/083

{with aliphatic polyenes, i.e. containing two or more carbon-to-carbon double bonds}

Definition statement

This place covers:

Copolymers of ethene with aliphatic polyenes, i.e. containing two or more carbon-to-carbon double bonds; as for example, copolymers of ethene and butadiene (minor amount).

C08L 23/0838**{with monomers including an aromatic carbocyclic ring}****Definition statement***This place covers:*

Copolymers of ethene with monomers including an aromatic carbocyclic ring, e.g. copolymers of ethene, butene (minor amount) and styrene (minor amount).

C08L 23/0846**with unsaturated hydrocarbons containing atoms other than carbon or hydrogen****Definition statement***This place covers:*

Copolymers of ethene with unsaturated hydrocarbons containing atoms other than carbon or hydrogen.

C08L 23/0861**Saponified copolymers, e.g. ethene vinyl alcohol copolymers****Definition statement***This place covers:*

Partially or fully saponified copolymers, e.g. ethylene vinyl alcohol copolymers. Further examples include: copolymers of ethene, vinyl acetate (minor amount) and vinyl alcohol (minor amount, for instance partially saponified ethene vinyl alcohol [EVA]).

C08L 23/0869**with unsaturated acids, e.g. [meth]acrylic acid; with unsaturated esters, e.g. [meth]acrylic acid esters****Definition statement***This place covers:*

Copolymers of ethene, either (a) with unsaturated acids, e.g. [meth]acrylic acid, or (b) with unsaturated esters, e.g. [meth]acrylic acid esters, copolymers of ethene and vinyl sulfonic acids or copolymers of ethene, butene (minor amount) and acrylate (minor amount).

C08L 23/0876**Salts thereof, i.e. ionomers****Definition statement***This place covers:*

Salts from copolymers of ethene and carboxylic acid, where H^+ is replaced by M^+ , i.e. ionomers; as for example, salts from neutralised copolymers of ethene and acrylic acid.

Special rules of classification

In this place, M⁺ is not regarded as "an atom other than carbon, hydrogen or oxygen" in the sense of [C08L 23/0892](#).

C08L 23/0884**Epoxide-containing esters****Definition statement**

This place covers:

Copolymers of ethylene with epoxide containing esters, e.g. glycidyl methacrylate.

C08L 23/10**Homopolymers or copolymers of propene****Special rules of classification**

Classification in this group can be further characterised by Indexing Codes [C08L 2207/10](#) - [C08L 2207/14](#) or [C08L 2314/02](#) - [C08L 2314/08](#)

C08L 23/12**Polypropene****Definition statement**

This place covers:

Homopolymers of propene

Special rules of classification

Classification in this group can be further characterised by Indexing Codes [C08L 2207/10](#) - [C08L 2207/14](#) or [C08L 2314/02](#) - [C08L 2314/08](#).

C08L 23/14**Copolymers of propene ([C08L 23/16](#) takes precedence)****Definition statement**

This place covers:

Copolymers of propene with the propene in majority, e.g. propene-butene.

References**Limiting references**

This place does not cover:

Ethene-propene or ethene-propene-diene copolymers	C08L 23/16
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Special rules of classification

Classification in this place can be further characterised by indexing codes [C08L 2207/10](#) - [C08L 2207/14](#) or [C08L 2314/02](#) - [C08L 2314/08](#).

C08L 23/16

Ethene-propene or ethene-propene-diene copolymers

Definition statement

This place covers:

Copolymers comprising both ethene and propene in about the same amount of each, ethene-propene-diene copolymers (with the diene in minority) and rubbery polymers of ethylene and propylene, e.g. ethene-propene rubber [EPR].

Relationships with other classification places

Although copolymers of ethene, propene and diene monomers are rubbers or elastomers, [C08L 23/16](#) is used when the diene monomers are not in majority; whereas [C08L 9/00](#) is used for copolymers where diene monomers are in majority.

C08L 25/00

Compositions of, homopolymers or 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; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 12/00](#), [C08F 112/00](#) and [C08F 212/00](#):

- hydrocarbons
- styrene, e.g. polystyrene
- alkyl-substituted styrenes
- aromatic monomers containing elements other than carbon and hydrogen

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

SBR rubber	C08L 9/06 - C08L 9/08
Grafted (co)polymers	C08L 51/00 - C08L 51/10
Block (co)polymers	C08L 53/02 - C08L 53/025
Acrylonitrile butadiene styrene ABS	C08L 55/02

Special rules of classification

Classification guidance:

Classification should be made based on the examples, but not the general claims, in the documents. The use of main group symbol should be avoided if there are subgroups cover the subject matter to be classified.

For example, a document claiming compositions of a polymer of an aromatic vinyl monomer, wherein the examples are limited to e.g. polystyrene, should be classified in [C08L 25/06](#) and not in [C08L 25/04](#), [C08L 25/02](#) or in [C08L 25/00](#)

General purpose PS, GPS is classified in [C08L 25/06](#).

High impact polystyrene HIPS is classified in [C08L 25/06](#), unless the rubber or rubber content is of relevance, where it should be classified in [C08L 51/04](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

GPS	General purpose polystyrene
HIPS	High impact polystyrene
PS	Polystyrene
SAN	Styrene acrylonitrile copolymer
SPS	Syndiotactic polystyrene

C08L 25/08

Copolymers of styrene ([C08L 29/08](#), [C08L 35/06](#), [C08L 55/02](#) take precedence)

References

Limiting references

This place does not cover:

Copolymers with allyl alcohol, even when allyl alcohol monomer is in minority	C08L 29/08
Copolymers with monomers according to C08L 35/00 , even in minority	C08L 35/06
Copolymers with monomers according to C08L 41/00 , even in minority	C08L 41/00
Copolymers with monomers according to C08L 43/00 , even in minority	C08L 43/00 - C08L 43/04

C08L 25/10

with conjugated dienes

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Styrene butadiene rubber, i.e. SBR	C08L 9/06 - C08L 9/08
Grafted copolymers comprising styrene and dienes	C08L 51/00
Block copolymers comprising styrene and dienes	C08L 53/00

C08L 25/12

with unsaturated nitriles

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Copolymers of unsaturated nitriles	C08L 33/18 - C08L 33/22
Acrylonitrile butadiene styrene copolymers ABS	C08L 55/02

C08L 25/14

with unsaturated esters

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Copolymers with unsaturated carboxylic acids and esters thereof	C08L 33/00 - C08L 33/26
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C08L 27/00

Compositions of homopolymers or 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; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 14/00](#), [C08F 114/00](#) and [C08F 214/00](#):

Homopolymers or copolymers containing chloride, e.g. of vinyl chloride or of vinylidene chloride.

Homopolymers or copolymers containing bromine or iodine atoms

Definition statement

Homopolymers or copolymers containing fluorine atoms, e.g. of vinyl fluoride,

of vinylidene fluoride, of tetrafluoroethene or of hexafluoropropene.

Homopolymers or copolymers containing halogen, modified or not modified by chemical after-treatment.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemically modified, (post)halogenated polymers e.g., halogenated polyolefins or halogenated polyolefinspolyolefins	C08L 23/28 , C08L 27/24
(Per)halogenated esters of unsaturated carboxylic acids	C08L 33/00
(Per)halogenated polyethers	C08L 71/00

Special rules of classification

Classification Guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified.
- For example, a document claiming compositions of a halogenated polymer, wherein the examples are limited to poly(vinyl chloride), should be classified in [C08L 27/06](#) and not in [C08L 27/04](#), [C08L 27/02](#) or [C08L 27/00](#).

C-Sets Classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

CTFE	Chlorotrifluoroethene; Chlorotrifluoroethylene
HFP	Hexafluoropropene; Hexafluoropropylene
PTFE	Poly (tetrafluoroethene); Poly (tetrafluoroethylene)
PVC	Poly (vinyl chloride)
PVDC	Poly (vinylidene chloride)
PVDF	Poly (vinylidene fluoride)
PVF	Poly (vinyl fluoride)

C08L 27/12

containing fluorine atoms

Definition statement

This place covers:

Compositions of (co)polymers of fluorine containing unsaturated monomers other than those covered by [C08L 27/14](#) - [C08L 27/20](#).

Compositions of (co)polymers of fluorine containing unsaturated monomers having additional halogen atom(s) other than fluorine, e.g. (co)polymers of chlorotrifluoroethene.

C08L 29/00

Compositions of homopolymers or 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; Compositions of hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 16/00](#), [C08F 116/00](#) and [C08F 216/00](#):

Homopolymers or copolymers of unsaturated alcohols, e.g. polyvinyl alcohol.

Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids, e.g. copolymers of allyl alcohol.

Homopolymers or copolymers of unsaturated ketones.

Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols.

Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified.
- For example, a document claiming compositions of a polymer of an unsaturated alcohol monomer, wherein the examples are limited to polyvinyl alcohol, should be classified in [C08L 29/04](#) and not in [C08L 29/02](#) or [C08L 29/00](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

EVA or E-VA	Ethylene vinyl alcohol copolymer OR ethylene vinyl acetate copolymer
PVA	Poly(vinyl alcohol) OR poly(vinyl acetate)
PVB	Poly(vinyl butyral)
PVOH	Poly (vinyl alcohol)

C08L 29/04

Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids

Definition statement

This place covers:

Saponified or hydrolysed (co)polymers of vinyl esters of saturated acids, e.g. saponified or hydrolysed (co)polymers of vinyl acetate.

C08L 29/08

with vinyl-aromatic monomers

Definition statement

This place covers:

Copolymers with styrene, even when styrene is in majority.

C08L 29/10

Homopolymers or copolymers of unsaturated ethers ([C08L 35/08](#) takes precedence)

References

Limiting references

This place does not cover:

Copolymers with monomers according to C08L 35/08 (such as unsaturated dicarboxylic acids, anhydrides or esters) are classified in C08L 35/08 only, even when these monomers are in minority	C08L 35/08
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C08L 31/00

Compositions of homopolymers or 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 (of hydrolysed polymers [C08L 29/00](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 18/00](#), [C08F 118/00](#) and [C08F 218/00](#):

- esters of saturated monocarboxylic acids with unsaturated alcohols, e.g. of vinyl acetate
- esters of polycarboxylic acids with unsaturated alcohols, e.g. of diallyl phthalate.

References

Limiting references

This place does not cover:

Hydrolysed or saponified polymers thereof	C08L 29/00
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Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified.
- For example, a document claiming compositions of a (co)polymer of an unsaturated ester of a saturated carboxylic acid monomer, wherein the examples are limited to e.g. polyvinyl acetate, should receive the class [C08L 31/04](#) and not [C08L 31/02](#) or [C08L 31/00](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

EVA or E-VA	Ethylene vinyl acetate copolymer or ethylene vinyl alcohol copolymer
PVA	Poly(vinyl acetate) or poly(vinyl alcohol)
PVAC or PVAc	Poly (vinyl acetate)

C08L 33/00

Compositions of homopolymers or 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 of salts, anhydrides, esters, amides, imides or nitriles thereof; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 20/00](#), [C08F 120/00](#) and [C08F 220/00](#).

- Homopolymers or copolymers of unsaturated acids e.g. of acrylic or methacrylic acid,
- esters e.g. of (meth)acrylate esters,
- nitriles e.g. of acrylonitrile,
- amides or imides, e.g. of acrylamide or methacrylamide.

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08
Coating compositions	C09D 133/00
Adhesives	C09J 133/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Diene rubbers containing carboxylic groups with acrylic monomers in minority	C08L 13/00
Pesticides; Herbicides;	A01N
Pharmaceuticals; Cosmetics;	A61K
Moulding processes	B29C

Layered products	B32B
Chemical compositions of tyres	B60C 1/00
Use of polymers in building materials, e.g. mortars	C04B 16/00
Explosives	C06B
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers, e.g. polymer resulting from polymerisation of methyl methacrylate and acrylic	C08F 10/00 - C08F 301/00 , e.g. C08F 220/00
Working-up, compounding, crosslinking, masterbatches or after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Coating thickening agents	C09D 7/43 - C09D 7/44
Transmission belts	F16G
Plastic pipes	F16L

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

If there is more than one subgroup that covers the subject matter to be classified, the lowest subgroup (last place) is used. For example, terpolymers of styrene, vinyl acetate and methyl methacrylate in similar proportions would be classified in [C08L 33/12](#) instead of [C08L 25/00](#) or [C08L 31/00](#).

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of acrylamide copolymers, but subject matter of the claim is a composition of acrylic copolymers, the document is classified as composition of acrylamide copolymers [C08L 33/26](#).
- Single polymers and their preparation are to be classified in [C08F 220/00](#) on the basis of sufficient disclosure in the document.

Choice of symbol for copolymer:

- In a composition comprising a copolymer, the copolymer is given the symbol on the basis of the major monomer of said copolymer, except if there is a lower symbol which specifies the comonomer in minority. For example, a composition based on a copolymer of ethylene and acrylic acid is classified in [C08L 23/0869](#) when ethylene is in majority, but in [C08L 33/02](#) when acrylic acid is in majority. However, a copolymer of acrylic ester and acrylonitrile (acrylic ester in majority) is classified in [C08L 33/20](#).
- The classification in [C08L 33/00](#) should be done according to the most specific, or reactive monomer, even if this is a monomer in minority. Thus compositions of copolymers wherein anhydride, carboxylic acid or metal salt containing monomers are present are classified in [C08L 33/064](#); copolymers wherein hydroxyl-containing monomers are present are classified in [C08L 33/064](#), copolymers wherein glycidyl-containing monomers are present are classified in [C08L 33/068](#).
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 33/00](#) relates to compositions having two or more polymers
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its minor component(s).
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts polymethyl methacrylate ([C08L 33/12](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 33/12](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts polymethyl methacrylate ([C08L 33/12](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 33/12](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 33/12](#)).

Example 3: A composition based on polymethyl methacrylate and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 33/12](#)). If this composition contains also a polyamide, then it is classified as ([C08L 33/12](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first polymethyl methacrylate ([C08L 33/12](#)) and containing as a second polymer a copolymer of acrylic acid, a phenol and silica is classified as ([C08L 33/12](#), [C08L 33/02](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/02](#).

Example 5: A composition containing a polyamide in majority, a polyester and a polymethyl methacrylate is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 33/12](#)) and in [C08L 2205/03](#).

Example 6: A composition containing a blend of a copolymer of acrylic ester, acrylamide and hydroxymethylmethacrylate as main component with polymethyl methacrylate as minor component therefore would be classified as ([C08L 33/26](#), [C08L 33/12](#)), even if less acrylamide monomer is present than acrylic ester and hydroxymethylmethacrylate. A separate C-Set in [C08F](#) corresponding to the co-monomers of the main polymer is also given ([C08F 220/14](#), [C08F 220/26](#), [C08F 220/20](#)).

Example 7: Compositions containing two polymers of the same dot group, for example compositions of two polymers am hydroxyl containing acrylic ester, are characterised by the orthogonal indexing code [C08L 2205/025](#). The complete classification for such a compositions therefore would be ([C08L 33/066](#), [C08L 33/066](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (e.g. molecular weight, density etc.).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
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Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

EVA	Ethylene-vinyl acetate
ULDPE, VLDPE	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 33/02

Homopolymers or copolymers of acids; Metal or ammonium salts thereof

References

Limiting references

This place does not cover:

Copolymers of bicarboxylic acids in majority	C08L 35/00
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C08L 33/04

Homopolymers or copolymers of esters {([C08L 43/04](#) takes precedence)}

Special rules of classification

Groups [C08L 37/00](#) - [C08L 43/04](#), [C08L 33/064](#)-[C08L 33/068](#) and [C08L 33/14](#) - [C08L 33/26](#) take precedence over this group, even if the corresponding monomers are in minority; this group should be used if the nature of the acrylic ester polymer is not specified.

C08L 33/06

of esters containing only carbon, hydrogen and oxygen, which oxygen atoms are present only as part of the carboxyl radical

Definition statement

This place covers:

Polymers formed from alkyl acrylate monomers.

References

Limiting references

This place does not cover:

Acrylic acid esters or methacrylic acid esters with alkaonols or phenols without having additional functional groups, e.g. methyl ethylacrylate	C08L 33/08 - C08L 33/12
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C08L 33/062

{Copolymers with monomers not covered by [C08L 33/06](#)}

References

Limiting references

This place does not cover:

Polymers formed from monomers, which have OH, glycidyl, anhydride or additional acid groups	C08L 33/064 - C08L 33/068
Polymers formed from monomers, which have halogen, nitrogen, sulphur or oxygen	C08L 33/14

C08L 33/064

{containing anhydride, COOH or COOM groups, with M being metal or onium-cation}

Definition statement

This place covers:

Acrylic polymers containing maleic acid or an derivative in minority.

References

Limiting references

This place does not cover:

Polymers containing an olefin in majority	C08L 23/0869
Acrylic polymers containing maleic acid or a derivative in majority	C08L 35/00

C08L 33/066

{containing -OH groups}

Definition statement

This place covers:

Polymers containing for e.g. hydroxy ethyl methacrylate (HEMA).

C08L 33/068

{containing glycidyl groups}

Definition statement

This place covers:

Polymers containing for e.g. glycidyl methacrylate

Further details of subgroups

[C08L 33/08](#) – [C08L 33/12](#)

In [C08L 33/08](#) - [C08L 33/12](#) the only copolymers classified are esters of acrylic acid or methacrylic acid. Other alkylacrylates are classified in [C09J 133/06](#).

All copolymers with other monomers are classified elsewhere.

Groups [C08L 37/00](#) - [C08L 43/04](#), [C08L 33/062](#)-[C08L 33/068](#) and [C08L 33/14](#) - [C08L 33/26](#) take precedence over this group even if the corresponding monomers are in minority.

C08L 33/10

Homopolymers or copolymers of methacrylic acid esters

Special rules of classification

Groups [C08L 37/00](#) - [C08L 43/04](#), [C08L 33/062](#)-[C08L 33/068](#) and [C08L 33/14](#) - [C08L 33/26](#) take precedence over this group even if the corresponding monomers are in minority.

C08L 33/14

of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen

Definition statement

This place covers:

Acrylic esters of polyethylene ethers,

Polymers of methoxymethacrylates,

Polymers of amino substituted acrylate esters.

Special rules of classification

Groups [C08L 37/00](#) - [C08L 43/04](#), [C08L 33/062](#)-[C08L 33/068](#) and [C08L 33/14](#) - [C08L 33/26](#) take precedence over this group even if the corresponding monomers are in minority.

C08L 35/00

Compositions of homopolymers or 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, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 22/00](#), [C08F 122/00](#) and [C08F 222/00](#)

- Homopolymers or copolymers of esters,
- Homopolymers or copolymers of nitriles,
- Copolymers with vinyl aromatic monomers,
- Copolymers with vinyl ethers.

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products	B32B
Explosives	C06B
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers,	C08F 10/00 - C08F 301/00

Working-up, crosslinking, masterbatches, foaming, compounding or after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Coating compositions	C09D 135/00
Adhesives	C09J 135/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of styrene-maleic anhydride, but subject matter of the claim is a composition of a vinyl aromatic copolymer, the document is classified as composition of styrene maleic anhydride copolymer ([C08L 35/06](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- In a composition comprising a copolymer, the copolymer is given the symbol on the basis of the major monomer of said copolymer, except if there is a lower symbol which specifies the comonomer in minority, i.e. ethylene maleic anhydride copolymers (ethylene in majority) would be classified in [C08L 23/0869](#), and not in [C08L 35/00](#), but ethylene maleic anhydride copolymers (maleic anhydride in majority) would be classified in [C08L 35/06](#), not in [C08L 23/0869](#)
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 35/00](#) relates to compositions having two or more polymers. The compositions of polymers this group are classified in the form of C-Sets (i.e. # C8La).
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts styrene-maleic anhydride copolymer ([C08L 35/06](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 35/06](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts styrene-maleic anhydride copolymer ([C08L 35/06](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 35/06](#), [C08L 77/00](#)) and as ([C08L 77/00](#), [C08L 35/06](#)).

Example 3: A composition based on styrene-maleic anhydride copolymer and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 35/06](#)). If this composition contains also a polyamide, then it is classified as ([C08L 35/06](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first styrene-maleic anhydride copolymer ([C08L 35/06](#)) and containing a second styrene-maleic anhydride copolymer, a phenol and silica is classified as ([C08L 35/06](#), [C08L 35/06](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/025](#).

Example 5: A composition containing a polyamide in majority, a polyester and a styrene-maleic anhydride copolymer is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 35/06](#)) and in [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same dot group, for example compositions of two styrene-maleic anhydride copolymer polymers, are characterised by the orthogonal indexing code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 35/06](#), [C08L 35/06](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

LDPE	Low density polyethylene, prepared by radical process
ULDPE, VLDPE	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 35/02

Homopolymers or copolymers of esters ([C08L 35/06](#), [C08L 35/08](#) take precedence)

References

Limiting references

This place does not cover:

Copolymers of unsaturated esters, e.g. acrylic ester with a monomer of C08L 35/00 , e.g. maleic anhydride which have the ester in majority	C08L 33/00
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Special rules of classification

Maleic anhydride should be characterised by a further Indexing Code of [C08F](#), e.g. [C08F 222/04](#).

Groups [C08L 35/06](#) and [C08L 35/08](#) take precedence over this group.

C08L 35/04

Homopolymers or copolymers of nitriles ([C08L 35/06](#), [C08L 35/08](#) take precedence)

References

Limiting references

This place does not cover:

Copolymers of unsaturated nitriles, e.g. acrylonitrile with a monomer of C08L 35/00 , maleic anhydride which have the nitrile in majority	C08L 33/00
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Special rules of classification

Maleic anhydride should be characterised by a further Indexing Code of [C08F](#), e.g. [C08F 222/04](#).

Groups [C08L 35/06](#) and [C08L 35/08](#) take precedence over this group.

C08L 35/06

Copolymers with vinyl aromatic monomers

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Copolymers of vinyl aromatic compounds, e.g. styrene, with a monomer of C08L 35/00 , e.g. maleic anhydride, which have the vinyl aromatic compound in majority	C08L 25/00
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Special rules of classification

Anhydrides, e.g. maleic anhydride, should be optionally classified as well in [C08F 222/04](#) or its indented subgroups - whenever considered relevant.

C08L 35/08

Copolymers with vinyl ethers

References

Limiting references

This place does not cover:

Copolymers of vinyl ethers with a monomer of C08L 35/00 , maleic anhydride which have the vinyl ether in majority	C08L 29/10
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Special rules of classification

Maleic anhydride should be characterised by a further Indexing Code of [C08F](#), e.g. [C08F 222/04](#).

C08L 37/00

Compositions of homopolymers or 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 (of cyclic esters of polyfunctional acids [C08L 31/00](#); of cyclic anhydrides of unsaturated acids [C08L 35/00](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers corresponding to groups [C08F 24/00](#), [C08F 124/00](#) or [C08F 224/00](#).

Relationships with other classification places

Multiple classification

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Compositions based on polymerisable monomers are classified in [C08F 10/00](#) - [C08F 301/00](#) or [C08G](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Limiting references

This place does not cover:

Compositions of polymers of cyclic esters of polyfunctional acids	C08L 31/00
Compositions of polymers of anhydrides of unsaturated acids	C08L 35/00

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products	B32B
Explosives	C06B
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers	C08F 10/00 - C08F 301/00
Coating compositions	C09D 137/00
Adhesives	C09J 137/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of diene vinyl furan, but subject matter of the claim is a composition of a diene copolymer, the document is classified as composition of diene vinyl furane copolymer ([C08L 37/00](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- [C08L 37/00](#) may also be given when the monomer described therein is in minority in a copolymer. For example, a composition based on a copolymer of diene and vinylfuran, which has only a low content of vinyl furan, would be classified in [C08L 37/00](#). Additional classification in [C08L 9/00](#) should be considered.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 37/00](#) relates to compositions having two or more polymers.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.

- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclass [C08L](#).
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts diene vinyl furan copolymer ([C08L 37/00](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 37/00](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts diene vinyl furan copolymer ([C08L 37/00](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 37/00](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 37/00](#)).

Example 3: A composition based on diene vinyl furan copolymer and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 37/00](#)). If this composition contains also a polyamide, then it is classified as ([C08L 37/00](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first diene vinyl furan copolymer ([C08L 37/00](#)) and containing a second diene vinyl furan copolymer, a phenol and silica is classified as ([C08L 37/00](#), [C08L 37/00](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/025](#).

Example 5: A composition containing a polyamide in majority, a polyester and a diene vinyl furan copolymer is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 37/00](#)) and in [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same dot group, for example compositions of two diene vinyl furan copolymer polymers, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 37/00](#), [C08L 37/00](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00

Saponified vinylacetate	Ethylene copolymers with vinyl alcohol
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Synonyms and Keywords

In patent documents, the following abbreviations are often used:

LLDPE	Linear low-density polyethylene, significant comonomer content
LDPE	Low density polyethylene, prepared by radical process
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 39/00

Compositions of homopolymers or 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; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers corresponding to [C08F 26/00](#), [C08F 126/00](#) and [C08F 226/00](#), as e.g.:

- Vinylamine
- N-vinylpyrrolidones
- Vinyl-pyridine

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 26/00](#), [C08F 126/00](#) and [C08F 226/00](#).

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Post-polymerisation treatments	C08F 6/00 - C08F 6/28
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Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic of non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of copolymers of acrylic amides or imides	C08L 33/24 - C08L 33/26
Post-polymerisation treatment	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers	C08F 10/00 - C08F 301/00
Coating compositions	C09D 139/00
Adhesives	C09J 139/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of acrylic ester - vinyl pyrrolidone copolymers, but subject matter of the claim is a composition of an acrylic ester copolymer, the document is classified as composition of vinyl pyrrolidone copolymer ([C08L 39/06](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- [C08L 39/00](#) may also be given when the monomer described therein is in minority in a copolymer. A coating based on a copolymer of acrylic ester and vinyl pyridine, which has a lower content of vinyl pyridine than acrylic ester, would also be classified in [C08L 39/08](#). Additional classification in [C08L 33/08](#) should be considered.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 39/00](#) relates to compositions having two or more polymers.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclass [C08L](#).
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.

- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts vinyl pyrrolidone copolymer ([C08L 39/06](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 39/06](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts vinyl pyrrolidone copolymer ([C08L 39/06](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 39/06](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 39/06](#)).

Example 3: A composition based on vinyl pyrrolidone copolymer and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 39/06](#)). If this composition contains also a polyamide, then the classification will be ([C08L 39/06](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first vinyl pyrrolidone copolymer ([C08L 39/06](#)) and containing a second vinyl pyrrolidone copolymer, a phenol and silica is classified as ([C08L 39/06](#), [C08L 39/06](#), [C08K 5/13](#), [C08K 3/36](#)) and [C08L 2205/025](#).

Example 5: A composition containing a polyamide in majority, a polyester and a vinyl pyrrolidone copolymer is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 39/06](#)) and [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same .dot group, for example compositions of two vinyl pyrrolidone copolymers, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 39/06](#), [C08L 39/06](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PVA, PVOH	polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 41/00

Compositions of homopolymers or 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; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 28/00](#), [C08F 128/00](#) or [C08F 228/00](#)

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

Textile treating compositions are classified in [D06](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers	C08F 10/00 - C08F 301/00

Coating compositions	C09D 141/00
Adhesives	C09J 141/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of acrylic ester vinyl thioethanol, but subject matter of the claim is a composition of an acrylic ester copolymer, the document is classified as composition of acrylic ester vinyl thioethanol copolymer ([C08L 41/00](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- [C08L 41/00](#) may also be given when the monomer described therein is in minority in a copolymer. A composition based on a copolymer of acrylic ester and vinyl thioethanol, which has only a low content of vinyl thioethanol, would be classified in [C08L 41/00](#).
- Additional classification in [C08L 9/00](#) should be considered.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C08La (Si), #C08Lb, and #C08Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 41/00](#) relates to compositions having two or more polymers.
- The polymer in majority is given a symbol as a base symbol, and the components in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclass [C08L](#).
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C08Ka and #C08Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts acrylic ester vinyl thioethanol copolymer ([C08L 41/00](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 41/00](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts acrylic ester vinyl thioethanol copolymer ([C08L 41/00](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 41/00](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 41/00](#)).

Example 3: A composition based on acrylic ester vinyl thioethanol copolymer and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 41/00](#)). If this composition contains also a polyamide, then the classification will be ([C08L 41/00](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first acrylic ester vinyl thioethanol copolymer ([C08L 41/00](#)) and containing a second acrylic ester vinyl thioethanol copolymer, a phenol and silica is classified as ([C08L 41/00](#), [C08L 41/00](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 77/00](#).

Example 5: A composition containing a polyamide in majority, a polyester and an acrylic ester vinyl thioethanol copolymer is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 41/00](#)).

Example 6: Compositions containing two polymers of the same .dot group, for example compositions of two acrylic ester vinyl thioethanol copolymer polymers, are characterised by the orthogonal indexing code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 41/00](#), [C08L 41/00](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PVA	Polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 43/00

Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing boron, silicon, phosphorus, selenium, tellurium or a metal; Compositions of derivatives of such polymers (of metal salts, e.g. phenolates, alcoholates, see the parent compounds)

Definition statement

This place covers:

Compositions of homopolymers or copolymers of compounds corresponding to groups [C08F 30/00](#), [C08F 130/00](#) or [C08F 230/00](#).

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 30/00](#), [C08F 130/00](#) or [C08F 230/00](#).

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of copolymers of ethylene with monomers used in C08L 43/00 in minority	C08L 23/0892
Compositions of copolymers of propene with monomers used in C08L 43/00 in minority	C08L 23/147
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers	C08F 10/00 - C08F 301/00
Coating compositions	C09D 145/00
Adhesives	C09J 145/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of acrylic ester - vinyl silane copolymers, but subject matter of the claim is a composition of a acrylic ester copolymer, the document is classified as composition of vinyl silane copolymer ([C08L 43/04](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- [C08L 43/00](#) may also be given when the monomer described therein is in minority in a copolymer. A coating based on a copolymer of acrylic ester and vinyl silane, which has a lower content of vinyl silane than acrylic ester, would also be classified in [C08L 43/04](#).
- Additional classification in [C08L 33/08](#) should be considered.
- However, if the major comonomer is ethylene or propene, the corresponding copolymer compositions are classified in [C08L 23/0892](#) or [C08L 23/147](#).
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 43/00](#) relates to compositions having two or more polymers.
- The polymer in majority is given a symbol as a base symbol, and the components in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts vinyl silane copolymer ([C08L 43/04](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 43/04](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts vinyl silane copolymer ([C08L 43/04](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 43/04](#), [C08L 43/04](#)) and ([C08L 77/00](#), [C08L 43/04](#)).

Example 3: A composition based on vinyl silane copolymer and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 43/04](#)). If this composition contains also a polyamide, then it is classified as ([C08L 43/04](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first vinyl silane copolymer ([C08L 43/04](#)) and containing a second vinyl silane copolymer, a phenol and silica is classified as ([C08L 43/04](#), [C08L 43/04](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/025](#).

Example 5: A composition containing a polyamide in majority, a polyester and a vinyl silane copolymer is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 43/04](#)) and in [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same dot group, for example compositions of two vinyl silane copolymers, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 43/04](#), [C08L 43/04](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PVA	Polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 45/00

Compositions of homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic ring system; Compositions of derivatives of such polymers (of cyclic anhydrides or imides [C08L 35/00](#); of cyclic esters of polyfunctional acids [C08L 31/00](#))

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 32/00](#), [C08F 132/00](#), [C08F 232/00](#) or [C08F 244/00](#).

(Co)polymers of cyclic olefins, e.g. norbornene or bicyclopentadiene, where the cyclic monomer is the major component in the copolymer.

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

References

Limiting references

This place does not cover:

Copolymers of cyclic esters of polyfunctional acids	C08L 31/00
Copolymers of cyclic anhydrides or imides	C08L 35/00

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Working-up, compounding, after-treatment of macromolecular compounds	C08J 3/00 - C08J 11/28
Use of Inorganic or non-macromolecular organic substances as compounding ingredients	C08K 3/00 - C08K 13/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Copolymers of monomers terminated by a heterocyclic ring containing Oxygen	C08L 37/00
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Single polymer products from compositions based on polymerisable monomers	C08F 10/00 - C08F 301/00

Coating compositions	C09D 145/00
Adhesives	C09J 145/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, i.e. if the examples only describe compositions of polynorbornene, but subject matter of the claim is a composition of polyolefin, the document is classified as composition of polynorbornene ([C08L 45/00](#)).
- Additional monomers present in the main component can be characterised by a symbol of [C08F](#)
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- A composition of Copolymers is given the symbol of the major component, except if there is a lower symbol which specifies the comonomer in minority (see also last place rule), e.g. ethylene norbornene copolymers (ethylene in majority) would be classified in [C08L 23/0823](#), and not in [C08L 45/00](#), but ethylene norbornene (norbornene in majority) would be classified in [C08L 45/00](#), not in [C08L 23/08](#)
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C08La (Si), #C08Lb, and #C08Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 45/00](#) relates to compositions having two or more polymers
- The polymer in majority is given a symbol as a base symbol, and the components in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb). The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A composition based on polynorbornene and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 45/00](#)). If this composition contains also a polyamide, then the classification will be ([C08L 45/00](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 2: A blend of 50 parts poly acetylene ([C08L 49/00](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 49/00](#), [C08L 77/00](#)) and ([C08L 77/00](#), [C08L 49/00](#)).

Example 3: A composition containing a polyamide in majority, a polyester and a polynorbornene is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 45/00](#)) and in [C08L 2205/03](#).

Example 4: Compositions containing two polymers of the same dot group, for example compositions of two coumarone-indene polymers, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for such compositions therefore would be ([C08L 45/00](#), [C08L 45/00](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties (i.e. molecular weight, density etc.)

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
EPR or EPDM, elastomeric ethylene propylene (diene) copolymers	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, i.e. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PVA	Polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 47/00

Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Compositions of derivatives of such polymers ([C08L 45/00](#) takes precedence; of conjugated diene rubbers [C08L 9/00](#) - [C08L 21/00](#))

References

Limiting references

This place does not cover:

Copolymers of rubber or its derivatives	C08L 9/00 - C08L 21/00
Copolymers of compounds having no unsaturated aliphatic radicals in side chain and having one or more carbon to carbon double bonds in a carbocyclic or in a heterocyclic ring system	C08L 45/00

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in the [C08L](#) subclass definition.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 49/00

Compositions of homopolymers or copolymers of compounds having one or more carbon-to-carbon triple bonds; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on homopolymers or copolymers of compounds corresponding to groups [C08F 38/00](#), [C08F 138/00](#) and [C08F 238/00](#).

Relationships with other classification places

Application of macromolecular compositions as biocides, pest-repellants, pest-attractants, or plant growth activity regulators is further classified in subclass [A01N](#).

Paints, inks, varnishes, dyes, polishes, adhesives are classified in [C09](#). Lubricants are classified in [C10M](#).

Detergents are classified in [C11D](#).

Artificial filaments or fibres are classified in [D01F](#).

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Coating compositions	C09D 149/00
Adhesives	C09J 149/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products	B32B
Single polymer products from compositions based on polymerisable monomers	C08F
Post-polymerisation treatments	C08F 6/00 - C08F 6/28
Homopolymers of acetylene derivatives	C08F 138/00
Copolymers of acetylene derivatives	C08F 238/00

Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, i.e. if the examples only describe compositions of polyacetylene, but subject matter of the claim is a composition of polyolefin, the document is classified as composition of polyacetylene ([C08L 49/00](#)).
- Single polymers and their preparation are to be classified in [C08F](#) on the basis of sufficient description in the document.

Choice of symbol for copolymer:

- A composition of Copolymers is given the symbol of the major component, except if there is a lower class which specifies the comonomer in minority (see also last place rule), i.e. ethylene copolymers (ethylene comonomer in majority) would be classified in [C08L 23/0807](#), and not in [C08L 49/00](#), but ethylene acetylene (acetylene in majority) would be classified in [C08L 49/00](#), not in [C08L 23/08](#).
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of [C08F](#) must also be given.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

- [C08L 49/00](#) relates to compositions having two or more polymers.
- The polymer in majority is given a symbol as a base symbol, and the components in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.

- If the polymers are present in equal proportions, the composition is given separate C-Sets according to each polymer.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and the related polymer in minority.
- Compositions containing polymers and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).
- Orthogonal indexing codes [C08L 2201/00](#) - [C08L 2555/86](#) are also given if applicable.

Example 1: A blend of 60 parts poly-acetylene ([C08L 49/00](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified in ([C08L 49/00](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts poly acetylene ([C08L 49/00](#)) and 50 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 49/00](#), [C08L 49/00](#)) and ([C08L 77/00](#), [C08L 49/00](#)).

Example 3: A composition based on polyacetylene and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 49/00](#)). If this composition contains also a polyamide, then the classification will be ([C08L 49/00](#), [C08L 77/00](#), [C08K 3/26](#)).

Example 4: A composition based on a first polyacetylene ([C08L 49/00](#)) and containing a second polyacetylene, a phenol and silica is classified as ([C08L 49/00](#), [C08L 49/00](#), [C08K 5/13](#), [C08K 3/36](#)) and in [C08L 2205/03](#).

Example 5: A composition containing a polyamide in majority, a polyester and a polyacetylene is classified as ([C08L 77/00](#), [C08L 67/00](#), [C08L 49/00](#)) and in [C08L 2205/03](#).

Example 6: Compositions containing two polymers of the same dot group, for example compositions of two polyacetylenes, are characterised by the Indexing Code [C08L 2205/025](#). The complete classification for such a compositions therefore would be ([C08L 49/00](#), [C08L 49/00](#)) and [C08L 2205/025](#). The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Aliphatic cyclic olefins	Carbocyclic monomer with an endocyclic double bond
Elastomeric ethylene propylene (diene) copolymers, e.g. EPR or EPDM	Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, i.e. 30 - 70 wt.% ethylene and 70 - 30 wt.% propene
Ionomer	Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids
Iso-olefin	Non-linear olefinic monomers, e.g. isobutylene, isopentene
Modified by chemical after treatment	Modification of the polymer after polymerisation, with the exception that (a) neutralisation of carboxylic acid containing copolymers to form epoxide containing esters (C08L 23/0884) and (b) saponification copolymers, e.g. ethene vinyl alcohol [EVA] copolymers (C08L 23/0861) are not regarded as after treatments in the sense of C08L 23/00
Saponified vinylacetate	Ethylene copolymers with vinyl alcohol

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

PVA	Polyvinyl alcohol or polyvinyl acetate
PVAC	Polyvinyl acetate
ULDPE, VLDPE,	Very low density polyethylene, d is less than 0.89, high comonomer content

C08L 51/00

Compositions of graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds (for ABS polymers [C08L 55/02](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on graft polymers corresponding to groups [C08F 251/00](#) - [C08F 292/00](#)

Relationships with other classification places

Graft copolymers in which the grafted component is obtained by reactions involving C=C per se are classified in [C08F 251/00](#) - [C08F 292/00](#)

Coating composition comprising graft polymers are classified in [C09D 151/00](#) - [C09D 151/10](#)

Adhesive composition comprising graft polymers are classified in [C09J 151/00](#) - [C09J 151/10](#).

Compositions comprising graft polymers in which the graft polymer is in minority are classified in [C08L 51/00](#) - [C08L 51/10](#).

References

Limiting references

This place does not cover:

Compositions comprising ABS polymers	C08L 55/02
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions comprising block or graft copolymers containing polysiloxane sequences, not obtained by reaction of C=C monomer(s) onto polysiloxane	C08L 83/10
Compositions comprising graft polymers obtained by interreacting polymers in the absence of monomers, e.g. graft polymer of C08G 81/00 - C08G 81/028	C08L 87/005
Cosmetic or toilet preparations comprising graft polymers	A61K 8/91
Graft polymers in membranes	B01D 71/78 , B01D 2323/38
Graft or comb polymers in mortars, concrete or artificial stone	C04B 2103/0059 , C04B 2103/006
Detergent composition comprising Graft polymers	C11D 3/3788

Developers with toner particles comprising graft polymers	G03G 9/133 , G03G 9/08786
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Special rules of classification

For compositions comprising grafted rubbers, several groups are given if the rubber is specific.

If the rubber is EPR: [C08L 51/04](#) and [C08L 51/06](#)

If the rubber is EPDM, SBR or acrylate rubber: [C08L 51/04](#) and [C08L 51/003](#)

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 53/00

Compositions of block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions of block polymers of classes [C08F 293/00](#) - [C08F 297/08](#)

Compositions based on block polymers corresponding to groups [C08F 293/00](#) - [C08F 297/08](#)

Relationships with other classification places

Block polymers obtained by reactions only involving C=C per se are classified in [C08F 293/00](#) - [C08F 297/08](#).

Coating compositions comprising block polymers are classified in [C09D 153/00](#) - [C09D 153/025](#).

Adhesive compositions comprising block polymers are classified in

[C09J 153/00](#) - [C09J 153/025](#) .

Compositions comprising block polymers in which the block polymer is in minority are classified in

[C08L 53/00](#) - [C08L 53/025](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions comprising block or graft copolymers containing polysiloxane sequences, not obtained by reaction of C=C monomer(s) onto polysiloxane	C08L 83/10
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Informative references

Compositions comprising block polymers obtained by interreacting polymers in the absence of monomers, e.g. block polymer of C08G 81/00 - C08G 81/028	C08L 87/005
Cosmetic or toilet preparations comprising block polymers	A61K 8/90
Block polymers in membranes	B01D 71/80
Block polymers in mortars, concrete or artificial stone	C04B 2103/0061
Developers with toner particles comprising block polymers	G03G 9/133 , G03G 9/08788

Special rules of classification

[C08L 53/005](#) and [C08L 53/025](#) cover compositions comprising modified block polymers. In particular, compositions comprising hydrogenated styrene-diene block copolymers are classified in [C08L 53/025](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 55/00

Compositions of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups [C08L 23/00](#) - [C08L 53/00](#)

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Polymerisation by the diene synthesis	C08F 2/60
ABS polymers per se	C08F 279/04
Macromolecular compounds obtained by polymerising monomers on to polymers modified by introduction of aliphatic unsaturated end or side groups	C08F 290/00 - C08F 290/14
Corresponding coatings and adhesives	C09D 155/00 - C09D 155/04 , C09J 155/00 - C09J 155/04

Special rules of classification

C-Sets and [C08L](#) classes are used as specified in the Special rules of classification of class [C08L](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 57/00

Compositions of unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds

Definition statement

This place covers:

Compositions of polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds which are not limited to a particular polymer type as defined in groups [C08L 7/00](#) - [C08L 55/00](#).

Compositions of polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds which are not specific enough as to fit in the preceding groups [C08L 7/00](#) - [C08L 55/00](#).

Relationships with other classification places

The use of [C08L 57/00](#) - [C08L 57/12](#) symbols should be avoided by classifying the specific examples, whenever practicable, in the corresponding groups of [C08L 7/00](#) - [C08L 55/00](#).

Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 57/08

containing halogen atoms

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of (co)polymers of unsaturated halogen containing monomers as defined in	C08L 27/00
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C08L 57/10**containing oxygen atoms****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Polysaccharides	C08L 1/00 - C08L 5/00
Unsaturated alcohols, ethers, ketones, acetals, ketals	C08L 29/00
Saturated carboxylic acid, carbonic acid or haloformic acid esters of unsaturated alcohols	C08L 31/00
Unsaturated carboxylic acids, esters	C08L 33/00
Unsaturated dicarboxylic acids, esters, anhydrides	C08L 35/00
Unsaturated aliphatic radicals, terminated by a heterocyclic ring containing oxygen	C08L 37/00

C08L 57/12**containing nitrogen atoms****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Polymers of unsaturated nitriles amides or imides	C08L 33/00
Unsaturated dicarboxylic amides, imides, nitriles	C08L 35/00
Unsaturated aliphatic radicals, terminated by a heterocyclic ring containing nitrogen	C08L 39/00

C08L 59/00**Compositions of polyacetals; Compositions of derivatives of polyacetals (of polyvinyl acetals [C08L 29/14](#))****Definition statement***This place covers:*

Composition based on polyacetals, which are addition polymers of aldehydes or cyclic oligomers thereof or of ketones and correspond to groups [C08G 2/00 - C08G 16/00](#) and their subgroups.

References**Limiting references***This place does not cover:*

Polyvinyl acetals	C08L 29/04
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Special rules of classification

Attention is drawn to the rules of C-Sets which are explained after the [C08L](#) title.

Classification guidance:

- When a document specifies polyacetal in general, or both homopolyacetals and copolyacetals, then main group [C08L 59/00](#) is used; only when the document specifically mentions homopolyacetals or copolyacetals, then [C08L 59/02](#) and [C08L 59/04](#) respectively are used.
- Classification should be made only based on the specific examples disclosed in the document.

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C08La (Si), #C08Lb, and #C08Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C08Lz, #C09Dz, and #C09Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 61/00

Compositions of condensation polymers of aldehydes or ketones (with polyalcohols [C08L 59/00](#); with polynitriles [C08L 77/00](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on condensation polymers of

- aldehydes or ketones with polyalcohols which correspond to subgroups [C08G 4/00](#),
- aldehydes or ketones only which correspond to subgroups [C08G 6/00](#) - [C08G 6/02](#),
- aldehydes or ketones with phenols only which correspond to subgroups [C08G 8/00](#) - [C08G 8/38](#),
- aldehydes or ketones with aromatic hydrocarbons or halogenated aromatic hydrocarbons only which correspond to subgroups [C08G 10/00](#) - [C08G 10/06](#),
- aldehydes or ketones with only compounds containing hydrogen attached to nitrogen which correspond to subgroups [C08G 12/00](#) - [C08G 12/46](#),
- condensation polymers of aldehydes or ketones with two or more other monomers covered by at least two of the groups [C08G 8/00](#) corresponding to [C08G 12/00](#), which correspond to subgroups [C08G 14/00](#) - [C08G 16/06](#).,
- condensation polymers of aldehydes or ketones with monomers not provided for in the groups [C08G 4/00](#) - [C08G 14/00](#), which correspond to subgroups [C08G 16/00](#).

References

Limiting references

This place does not cover:

Condensation polymers of aldehydes or ketones with polyalcohols	C08L 59/00
Condensation polymers of aldehydes or ketones with polynitriles	C08L 77/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Application in or for layered products	B32B
Peptides	C07K
Compounding ingredients	C08K

Special rules of classification**C-Sets classification:**

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 63/00**Compositions of epoxy resins; Compositions of derivatives of epoxy resins****Definition statement**

This place covers:

All compositions comprising epoxy resins and optionally other polymeric or non-polymeric compounds. The emphasis is on the epoxy resins.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Compositions of homo- or copolymers of acrylic/methacrylic esters having pendent glycidyl groups	C08L 33/068
Polycondensates having more than one epoxy group per molecule	C08G 59/00 - C08G 59/72

Special rules of classification**C-Sets classification:**

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

Example 1: A blend of 60 parts non-specified epoxy resin ([C08L 63/00](#)) and 40 parts polyamide ([C08L 77/00](#)) is classified as ([C08L 63/00](#), [C08L 77/00](#)).

Example 2: A blend of 50 parts non-specified epoxy resin ([C08L 63/00](#)) and 50 parts Novolak epoxy resin ([C08L 63/04](#)) is classified as ([C08L 63/00](#), [C08L 63/04](#)), ([C08L 63/04](#), [C08L 63/00](#)) and [C08L 2205/02](#).

Example 3: A composition based of a polyepoxide and containing CaCO₃ is classified as ([C08K 3/26](#), [C08L 63/00](#)). If this composition contains also a polyamide, then the classification will be ([C08L 63/00](#), [C08L 77/00](#), [C08K 3/26](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Epoxy resins	All polycondensates having more than one epoxy groups per molecule
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Synonyms and Keywords

Bisphenol A	4,4'-(Propane-2,2-diyl)diphenol
Bisphenol F	2-[(2-Hydroxyphenyl)methyl]pheno
Bisphenol S	4-(4-Hydroxyphenyl)sulfonylphenol
DGEBA	Diglycidyl ether of Bisphenol A
Epoxide	Oxirane
Glycidyl-	2,3-Epoxypropyl-

C08L 65/00

Compositions of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain ([C08L 7/00](#) - [C08L 57/00](#), [C08L 61/00](#) take precedence); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on macromolecular compounds obtained by reactions forming a carbon-carbon bond in the main chain other than polymers obtained by reactions only involving the polyaddition of carbon-to-carbon unsaturated bonds (wherein in the latter case the reactive carbon-carbon group stays intact without cleavage of fragments) corresponding to groups [C08G 61/00](#) - [C08G 61/12](#). The compositions comprise either other macromolecular compounds and/or other ingredients.

The use of such macromolecular substances as compounding ingredients is included, as well.

Relationships with other classification places

Relationship with other subclasses of classes [C08](#) and [C09](#):

Macromolecular compounds per se obtained by polyaddition reactions only involving carbon-to-carbon unsaturated bonds wherein the reactive carbon-carbon group stays intact without cleavage of fragments are classified in [C08F](#). Compositions based on monomers of such polymers are also classified in [C08F](#).

This main group includes metathesis polymerization products, but it does not include common addition polymers such as polymethylmethacrylate.

Relationships with other classification places

Macromolecular compounds obtained by reactions forming a carbon-carbon bond in the main chain other than polymers obtained by reactions only involving the polyaddition of carbon-to-carbon unsaturated bonds are classified in [C08G 61/00](#). Compositions based on monomers of such polymers are also placed in [C08G 61/00](#).

Coating compositions and other polymer compositions for similar uses, e.g. paints, inks, woodstains and printing pastes, are classified in [C09D](#).

Adhesives and adhesive processes are classified in [C09J](#).

Relationship with other main groups of the same subclass [C08L](#):

Compositions based on polymers prepared by condensation reactions of aldehydes or ketones with phenols only are classified in groups [C08L 61/04](#) - [C08L 61/16](#), since [C08L 61/00](#) - [C08L 61/34](#) takes preference. For the same reasons, compositions of condensation polymers of aldehydes or ketones only are put in [C08L 61/02](#). Compositions based on polymers, which may otherwise be formed by carbon-carbon bond formation, but which are prepared by condensation reactions other than those involving the formation of carbon-carbon bonds in the main chain are classified in the appropriate groups, e.g. [C08L 79/04](#) for polypyrroles formed from amines and polyketones. Compositions of polyketones are classified in [C08L 73/00](#).

References

Limiting references

This place does not cover:

The corresponding subclass [C08L](#) and this group does not cover:

Compositions of rubbers, of macromolecular compounds obtained by reactions involving only carbon to carbon unsaturated bonds	C08L 7/00 - C08L 57/00
Condensation polymers of aldehydes or ketones	C08L 61/00

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Application of macromolecular compositions as pesticides or herbicides	A01N
Application of macromolecular compositions as pharmaceutical compositions or cosmetics	A61K , e.g. A61K 8/84
Application of macromolecular compositions in medical devices, such as stents	A61L , e.g. A61L 31/06
Application of macromolecular compositions as explosive compositions	C06B
Application of macromolecular compositions in coating compositions	C09D 165/00 - C09D 165/04
Application of macromolecular compositions in adhesive compositions	C09J 165/00 - C09J 165/04
Application of macromolecular compositions in lubricants	C10M
Artificial filaments or fibres	D01F

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catalysts in general	B01J
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Informative references

Polyacetylenes prepared by polyaddition reactions	C08F 38/02 , C08L 49/00
Condensation polymers of aldehydes with phenols only; compositions comprising such polycondensates	C08G 8/04 , C08L 61/06
Condensation polymers of aldehydes with aromatic hydrocarbons or halogenated aromatic hydrocarbons only; compositions comprising such polycondensates	C08G 10/02 , C08L 61/18
Macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain of the macromolecule	C08G 61/00 - C08G 61/127
Poly(ether ketones) obtained by reactions forming an ether link in the main chain of the macromolecule or compositions comprising such polycondensates	C08G 65/4012 , C08L 71/00
Polycondensates having nitrogen-containing heterocyclic rings in the main chain of the macromolecules obtained by reactions forming a linkage containing nitrogen, including polypyrroles or compositions comprising such polycondensates	C08G 73/06 , C08L 79/04
Complementary aspects concerning C08G 61/00	C08G 2261/00 - C08G 2261/964
Preparation of ion-exchange films, membrane or diaphragms	C08J 5/2256
Electrically conductive paint compositions	C09D 5/24
Luminescent, e.g. electroluminescent or chemiluminescent materials containing organic luminescent materials	C09K 11/06 or C09K 2211/14 - C09K 2211/1491
Treatment of textiles	D06L - D06Q
Conductors characterised by the conductive material: Conductive polymers	H01B 1/124
Electrode materials selected from organic compounds	H01M 4/60
Fuel cells, electrolyte layers, solid electrolyte capacitors, solid polymeric electrolyte materials for accumulators	H01M 8/1018 , H01G 9/025 , H01M 2300/0082 , H01M 10/0565
Solid state devices using oligomeric or polymeric materials as the active part, or using a combination of organic materials including organic oligomers or polymers with other materials as the active part	H10K 85/10

Special rules of classification

Classification guidance:

- If a composition comprises a component which is a condensation polymer containing two or more different types of linkages, it is classified according to the linkage present in the greatest amount.
- If such a component is an addition polymer containing two or more monomers, it is classified according to the monomer present in the greatest amount.
- This group follows the special rules of classification outlined at subclass [C08L](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Addition polymers	An addition polymer is a polymer which is formed by an addition reaction, where monomers bond together via rearrangement of bonds without the loss of any atom or molecule. This is in contrast to a condensation polymer which is formed by a condensation reaction where a molecule, such as water, is lost during the formation.
Condensation polymers	Condensation polymers are macromolecules formed by means of reactions in which water or some other simple molecule is eliminated from 2 or more monomer molecules as they combine to form the polymer. This is a polycondensation.

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

ADMET	Acyclic diene metathesis
ROMP	Ring-opening metathesis polymerisation

C08L 67/00

Compositions of polyesters obtained by reactions forming a carboxylic ester link in the main chain (of polyester-amides [C08L 77/12](#); of polyester-imides [C08L 79/08](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on polymers of compounds corresponding to groups [C08G 63/00](#)

References

Limiting references

This place does not cover:

Compositions of polyester-amides	C08L 77/12
Compositions of polyester-imides	C08L 79/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Degradable polymer compositions	C08L 101/16
Preparation of medical dental or toilet purposes	A61K
Chemical aspects of and materials for bandages, dressings, absorbent pads or surgical articles	A61L

Layered products comprising polyesters	B32B 27/36
Dendrimers, hyperbranched polymers, polyrotaxanes, polycatenanes, supramolecular polymers	C08G 83/00
Coating compositions characterized by their physical nature or their effects produced	C09D 5/00
Coating compositions of polyesters	C09D 167/00
Adhesive compositions of polyesters	C09J 167/00
Polyester fibers	D01F 6/62 , D01F 8/14
Binders for toners	G03G 9/08755

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

PBT	Polybutylene terephthalate
PCL	Polycaprolactone
PEA	Polyethylene adipate
PEN	Polyethylene naphthalate
PET	Polyethylene terephthalate
PGA	Polyglycolic acid
PHA	Polyhydroxyalkanoate
PLA	Polylactic acid
PTT	Polytrimethylene terephthalate

C08L 69/00

Compositions of polycarbonates; Compositions of derivatives of polycarbonates

Definition statement

This place covers:

Compositions based on polymers of compounds corresponding to groups [C08G 64/00](#)

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products comprising polycarbonates	B32B 27/00
Dendrimers, hyperbranched polymers, polyrotaxanes, polycatenanes, supramolecular polymers	C08G 83/00
Coating compositions of polycarbonates	C09D 169/00
Adhesive compositions of polycarbonates	C09J 169/00
Polycarbonate fibers	D01F 6/64
Polycarbonate lenses	G02B 1/041
Polycarbonate binders for toners	G03G 9/08757
Polycarbonate record carriers	G11B 2007/25304

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 71/00

**Compositions of polyethers obtained by reactions forming an ether link in the main chain (of polyacetals [C08L 59/00](#); of epoxy resins [C08L 63/00](#); of polythioether-ethers [C08L 81/02](#); of polyether-sulfones [C08L 81/06](#));
Compositions of derivatives of such polymers**

Definition statement

This place covers:

Compositions based on polymers of polyalkylenes oxides, polyethers derived from hydroxy compounds, e.g. PPO

References

Limiting references

This place does not cover:

Compositions of polyacetals	C08L 59/00
Compositions of epoxy resins	C08L 63/00
Compositions of polythioether-ethers	C08L 81/02
Compositions of polyether-sulfones	C08L 81/06

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 71/02

Polyalkylene oxides

Definition statement

This place covers:

Compositions containing (-O-R-O-) repeat unit where R is an alkyl group

e.g. polyethylene oxide, polypropylene oxide or polytetrahydrofuran.

Special rules of classification

Polyalkylene oxides can be made by either ring opening reactions as in [C08G 65/02](#) and [C08G 65/26](#) or much more rarely by a condensation reaction as in [C08G 65/34](#). In either case, compositions of such polymers regardless of the method of synthesis should be classified in [C08L 71/02](#).

C08L 73/00

Compositions of macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups [C08L 59/00](#) - [C08L 71/00](#); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on polyketones made by reaction of carbon monoxide with unsaturated aliphatic compound.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polyketones from carbon monoxide	C08G 67/02
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Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 73/02

Polyanhydrides

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of polyanhydrides	C08G 67/04
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C08L 75/00

Compositions of polyureas or polyurethanes; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on polymers of compounds corresponding to groups [C08G 18/00](#) or [C08G 71/00](#)

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparations for medical, dental or toilet purposes	A61K
Processes for applying liquid materials to surfaces	B05D 1/00
Shaping or joining plastics	B29C
Mould release agents	B29C 33/60
Layered products comprising polyurethanes	B32B 27/40
Working up of polyurethanes to porous or cellular articles	C08J 9/00
Use of inorganic or non-macromolecular organic substances as compounding ingredients	C08K
Coating compositions characterized by their physical nature or their effects produced	C09D 5/00
Coating compositions of polyurethanes or polyureas	C09D 175/00
Adhesives processes	C09J 5/00
Adhesive compositions of polyurethanes or polyureas	C09J 175/00
Materials for sealing	C09K 3/10

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Synonyms and Keywords

CPP	Copolymer polyol
DABCO	1,4-Diazabicyclo(2.2.2)octane
DMPA	Dimethylol propionic acid
EDA	Ethylene diamine
EO	Ethylen oxide
HDI	Hexane diisocyanate
H12M DI	Dicyclohexylmethane diisocyanate
IEM	Isocyanato ethyl methacrylate
IPDI	Isophorone diisocyanate
Jeffamine	Amine capped polyether
MDI	4,4-Methylenebis(phenyl)isocyanate
PEG	Polyethyleneglycol
PIR	Polyisocyanurate
PMDI	Polymethylene poly(phenylisocyanate)
PO	Propylene oxide
PPG	Polypropylene glycol
PTMO	Polytetramethylene oxide
TDI	Toluene diisocyanate
TMP	Trimethylol propane
TMXDI	Trimethylol propane
TPU	Tetramethylxylylene diisocyanate
XDI	Xylylene diisocyanate

C08L 77/00

Compositions of polyamides obtained by reactions forming a carboxylic amide link in the main chain (of polyhydrazides [C08L 79/06](#); of polyamideimides or polyamide acids [C08L 79/08](#)); Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on polyamides derived from

- omega-amino carboxylic acids or from lactams which correspond to subgroup [C08G 69/02](#), e.g. nylon 6,
- alpha-amino carboxylic which correspond to subgroups [C08G 69/10](#)

polyamines and polycarboxylic acids which correspond to subgroup [C08G 69/26](#), e.g. nylon 66,

- aromatically bound amino and carboxyl groups of amino-carboxylic acids or of polyamines and polycarboxylic acids which correspond to subgroup [C08G 69/32](#),
- compositions of polyester-amides which correspond to subgroup [C08G 69/44](#).

References

Limiting references

This place does not cover:

Compositions of polyhydrazides	C08L 79/06
Compositions of polyamideimides or polyamide acids	C08L 79/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hollow fibres membranes	B01D 69/08
Layered products	B32B
Treatment of rubber	C08C
Macromolecular compounds obtained by reactions involving carbon to carbon bonds	C08F
Processes of polymerisation	C08F 2/00
Post-polymerisation treatments	C08F 6/00
Macromolecular compounds obtained otherwise than by reactions only involving carbon to carbon bonds	C08G
Processes of treating or compounding macromolecular substances	C08J 3/00
Processes of crosslinking	C08J 3/24
Manufacture of articles or shaped materials containing macromolecular substances, e.g. films	C08J 5/00 , C08J 5/18
Coating of shaped articles made of macromolecular substances	C08J 7/00
Working-up of macromolecular substances to porous or cellular materials	C08J 9/00
Compounding ingredients	C08K
Tubes	F16L
Optical articles, optical parts, e.g. contact lenses	G02B 1/00

Photosensitive films	G03F 3/00
Printed circuits	H05K

Special rules of classification

Group [C08L 77/10](#) takes precedence over [C08L 77/02](#), [C08L 77/04](#) and [C08L 77/06](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 79/00

Compositions of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing nitrogen with or without oxygen or carbon only, not provided for in groups [C08L 61/00](#) - [C08L 77/00](#)

Definition statement

This place covers:

Compositions of polymers formed by reactions forming a linkage containing nitrogen with or without oxygen or carbon in the main chain of the macromolecule not provided for in [C08L 61/00](#) - [C08L 77/00](#).

Examples:

Compositions of:

- Polyamines or polyethyleneimines.
- Polycondensates having nitrogen-containing heterocyclic rings in the main chain, for e.g. polyhydrazides, polyhydrazides, polytriazoles, polyamino-triazoles, polybenzimidazoles or polyoxadiazoles.
- Polyimides, polyester-imides, polyamide-imides, polyamide acids, (unsaturated) polyimide precursors.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hollow fibres membranes	B01D 69/08
Layered products	B32B
Treatment of rubber	C08C
Macromolecular compounds obtained by reactions involving carbon to carbon bonds	C08F
Processes of polymerisation	C08F 2/00
Post-polymerisation treatments	C08F 6/00

Macromolecular compounds obtained otherwise than by reactions only involving carbon to carbon bonds	C08G
Processes of treating or compounding macromolecular substances	C08J 3/00
Processes of crosslinking	C08J 3/24
Manufacture of articles or shaped materials containing macromolecular substances, e.g. films	C08J 5/00 , C08J 5/18
Coating of shaped articles made of macromolecular substances	C08J 7/00
Working-up of macromolecular substances to porous or cellular materials	C08J 9/00
Compounding ingredients	C08K
Tubes	F16L
Optical articles, optical parts, e.g. contact lenses	G02B 1/00
Photosensitive films	G03F 3/00
Printed circuits	H05K

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 81/00

Compositions of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing sulfur with or without nitrogen, oxygen or carbon only; Compositions of polysulfones; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions based on polymers corresponding to group [C08G 75/00](#).

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#) subclass.

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 81/02**Polythioethers; Polythioether-ethers****References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Synthesis of aromatic polythioethers	C08G 75/0204
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C08L 81/04**Polysulfides****Definition statement**

This place covers:

Compositions containing polymers containing the (S-S)_n repeat unit.

References**Limiting references**

This place does not cover:

Compositions of polyphenylene sulphides	C08L 81/02
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C08L 81/06**Polysulfones; Polyethersulfones****References****Limiting references**

This place does not cover:

Compositions of polyetherketones	C08L 71/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of polysulfones	C08G 75/20
Synthesis of polyethersulfones	C08G 75/23

C08L 81/08

Polysulfonates

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of polysulphonates	C08G 75/24
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C08L 81/10

Polysulfonamides; Polysulfonimides

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of polysulphonamides	C08G 75/30
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C08L 83/00

Compositions of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon with or without sulfur, nitrogen, oxygen or carbon only; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions comprising macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon with or without sulfur, nitrogen, oxygen or carbon only (Si-based macromolecular compounds in the sense of [C08G 77/00](#) or "Si-based polymers" here under), e.g.

- polysilicates (corresponding to group [C08G 77/02](#)),
- polysiloxanes (corresponding to group [C08G 77/04](#)),
- block- or graft-copolymers containing polysiloxane sequences (corresponding to group [C08G 77/42](#)) or
- polymers in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (corresponding to group [C08G 77/48](#));

Compositions of derivatives of such polymers.

Relationships with other classification places

The preparation of polymers containing Si in the main chain is classified in [C08G 77/00](#).

Coating compositions comprising polymers containing Si in the main chain are classified in [C09D 183/00](#) and adhesives based on polymers containing Si in the main chain are classified in [C09J 183/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of polymers of other C08L groups	C08L
Application for medical or pharmaceutical purposes	A61J
Application in cosmetics	A61K 8/89
Application in layered products	B32B
Application to construction materials	C04B 41/4905
Preparation of aqueous siloxane emulsions	C08J 3/03
Manufacturing of foams	C08J 9/00
Compounding ingredients	C08K
Application of siloxanes as pressure sensitive adhesives, i.e. PSA	C09J 7/38
Release coating composition on which the PSA is applied	C09J 7/40
Treating fibres and yarns	D06M 15/643
Application in optical articles, optical parts, e.g. contact lenses	G02B 1/043
Application in semiconductors e.g. as dielectric layer or encapsulation	H01L 21/3122 , H01L 23/296

Special rules of classification

The following symbols are given if applicable:

[C08G 77/70](#) for every document which uses the MDTQ nomenclature in the claims or the examples;

[C08G 77/80](#) for polysiloxanes having aromatic substituents such as phenyl side groups.

C-Sets classification:

In this group, multiple C-Sets, specifically C-Sets #C8La, #C8Lb, #C8La(Si), #C8La(Si)₂, #C8Lb(Si) and #C8Lb(Si)₂, are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" of following places:

- See #C8La, #C8Lb, #C8La(Si), and #C8Lb(Si) in [C08L](#)
- See #C8La(Si)₂ and #C8Lb(Si)₂ present in this group below.

C-Sets statement: #C8La(Si)₂, #C8Lb(Si)₂

- C-Sets #C8La(Si)₂ and #C8Lb(Si)₂ are a special use of #C8La and #C8Lb for composition comprising two or more Si-based polymers in the sense of [C08G 77/00](#).
- In groups [C08L 83/02](#) - [C08L 83/16](#), the feature relating to a composition comprising one Si-based polymer in majority with one Si-based polymer in minority optionally with non Si-based polymer is classified in the form of C-Sets.
- In #C8La(Si)₂ and #C8Lb(Si)₂, the base symbol, representing the polymer in majority, is taken from the groups [C08L 83/02](#) - [C08L 83/16](#), whereas the subsequent symbol(s) representing the Si-based polymer(s) in minority is (are) taken from the group [C08L 83/00](#) and optionally from the groups [C08L 1/00](#) - [C08L 101/16](#) for any other polymer. The second and each further Si-based macromolecular compound(s) is (are) each represented as subsequent symbol by the symbol [C08L 83/00](#).
- #C8Lb(Si)₂ further includes subsequent symbols, representing compound(s) used as an additive(s), from the groups [C08K 3/00](#) - [C08K 13/08](#).

- In addition to C-Sets, one or more additional symbols are allocated, which are selected from the range [C08G 77/02](#) - [C08G 77/62](#) corresponding to each of the Si-based macromolecular compound components detailed in the C-Set.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.

C-Sets syntax rules:

- Each of C-Set should contain at least two symbols of [C08L](#).
- C-Sets of #C8La(Si)₂ shall contain at least two symbols.
- C-Sets of #C8Lb(Si)₂ shall contain at least three symbols
- While duplicate symbols are allowed in these C-Sets, only one symbol selected from the range [C08L 83/02](#) - [C08L 83/16](#) is permitted per C-Set.
- Breakdown codes are not allowed either as base or as subsequent symbols.
- The order of [C08L](#) symbols in C-Sets of #C8La(Si)₂ and #C8Lb(Si)₂ is relevant as it reflects the relative amounts of the polymers. The [C08K](#) symbols for the additives always appear after the symbols for the polymers ([C08L](#)). The order of [C08K](#) symbols of additives is not relevant if there is more than one additive in the composition.

C-Sets examples:

In this group, C-Sets #C8La, #C8La(Si), #C8La(Si)₂, #C8Lb, #C8Lb(Si), and #C8Lb(Si)₂ are applicable for classifications of compositions comprising one or more Si-based macromolecular compound(s). C-Sets examples according to these C-Sets rules are present as follows:

- #C8La

Example 1: A composition comprising, in descending amounts by weight, an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and a polyester in accordance with [C08G 63/02](#) is classified as ([C08L 83/06](#), [C08L 67/02](#)) and in [C08G 77/14](#) (ADD).

Example 2: A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#) and an alkoxy-substituted polysiloxane in accordance with [C08G 77/18](#) is classified as ([C08L 67/02](#), [C08L 83/04](#)) and in [C08G 77/18](#) (ADD).

- #C8La(Si)

Example 3: A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#), an amine-substituted polysiloxane in accordance with [C08G 77/26](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) is classified as ([C08L 67/02](#), [C08L 83/08](#), [C08L 83/00](#)) and in [C08G 77/14](#)(ADD) and [C08G 77/26](#) (ADD).

- #C8La(Si)₂

Example 4: A composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with [C08G 77/20](#) and a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) is classified as ([C08L 83/04](#), [C08L 83/00](#)) and in [C08G 77/12](#) (ADD) and [C08G 77/20](#) (ADD).

Example 5: A composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with [C08G 77/20](#), an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) is classified as ([C08L 83/04](#), [C08L 83/00](#), [C08L 83/00](#)) and in [C08G 77/12](#) (ADD), [C08G 77/14](#) (ADD) and [C08G 77/20](#) (ADD).

Example 6: A composition comprising, in descending amounts by weight, a silanol-substituted polysiloxane in accordance with [C08G 77/16](#), a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) and a polyester in accordance with [C08G 63/02](#) is classified as ([C08L 83/04](#), [C08L 83/00](#), [C08L 67/02](#)) and in [C08G 77/12](#)(ADD) and [C08G 77/16](#) (ADD).

Example 7: A composition comprising, in descending amounts by weight, a halogen group-bearing polysiloxane in accordance with [C08G 77/24](#), a polyester in accordance with [C08G 63/02](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) is classified as ([C08L 83/08](#), [C08L 67/02](#), [C08L 83/00](#)) and in [C08G 77/04](#) (ADD) and [C08G 77/24](#) (ADD).

- #C8Lb:

Example 8: A composition comprising, in descending amounts by weight, an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and a polyester in accordance with [C08G 63/02](#) and a resorcinol phosphate is classified as ([C08L 83/06](#), [C08L 67/02](#), [C08K 5/523](#)) and in [C08G 77/14](#) (ADD).

Example 9: A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#) and an alkoxy-substituted polysiloxane in accordance with [C08G 77/18](#) and silica is classified as ([C08L 67/02](#), [C08L 83/04](#), [C08K 3/36](#)) and in [C08G 77/18](#) (ADD).

- #C8Lb(Si):

Example 10: A composition comprising, in descending amounts by weight, a polyester in accordance with [C08G 63/02](#), an amine-substituted polysiloxane in accordance with [C08G 77/26](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and carbon black is classified as ([C08L 67/02](#), [C08L 83/08](#), [C08L 83/00](#), [C08K 3/04](#)) and in [C08G 77/14](#) (ADD) and [C08G 77/26](#) (ADD).

- #C8Lb(Si)2

Example 11: A composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with [C08G 77/20](#) and a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) and silica is classified as ([C08L 83/04](#), [C08L 83/00](#), [C08K 3/36](#)) and in [C08G 77/12](#) (ADD) and [C08G 77/20](#) (ADD).

Example 12: A composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with [C08G 77/20](#), an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) and silica is classified as ([C08L 83/04](#), [C08L 83/00](#), [C08L 83/00](#), [C08K 3/36](#)) and in [C08G 77/12](#) (ADD), [C08G 77/14](#) (ADD) and [C08G 77/20](#) (ADD).

Example 13: A composition comprising, in descending amounts by weight, a silanol-substituted polysiloxane in accordance with [C08G 77/16](#), a polysiloxane bearing Si-H groups in accordance with [C08G 77/12](#) and a polyester in accordance with [C08G 63/02](#) and a phenol classified as ([C08L 83/04](#), [C08L 83/00](#), [C08L 67/02](#), [C08K 5/13](#)) and in [C08G 77/12](#) (ADD) and [C08G 77/16](#) (ADD).

Example 14: A composition comprising, in descending amounts by weight, a halogen group-bearing polysiloxane in accordance with [C08G 77/24](#), a polyester in accordance with [C08G 63/02](#) and an epoxy-substituted polysiloxane in accordance with [C08G 77/14](#) and a phenol is classified as ([C08L 83/08](#), [C08L 67/02](#), [C08L 83/00](#), [C08K 5/13](#)) and in [C08G 77/14](#) (ADD) and [C08G 77/24](#) (ADD).

C-Sets searches:

Since multiple C-Sets classifications are applicable to this group C-Sets, search queries may be made according to C-Sets classification rules described in [C08L](#) and this group above, as well as other related subclasses, e.g. [C09D](#) and [C09J](#).

In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

MDTQ nomenclature	<p>The so called MDTQ nomenclature exists to facilitate the description of siloxane molecules.</p> $ \begin{array}{cccc} \begin{array}{c} \text{R} \\ \\ \text{R}-\text{Si}-\text{O} \\ \\ \text{R} \end{array} & \begin{array}{c} \text{R} \\ \\ \text{O}-\text{Si}-\text{O} \\ \\ \text{R} \end{array} & \begin{array}{c} \text{R} \\ \\ \text{O}-\text{Si}-\text{O} \\ \\ \text{O} \end{array} & \begin{array}{c} \text{O} \\ \\ \text{O}-\text{Si}-\text{O} \\ \\ \text{O} \end{array} \\ \text{M} & \text{D} & \text{T} & \text{Q} \end{array} $ <p>where R is an organic group; O is an oxygen connected to other silicon atoms; M ($\text{R}_3\text{SiO}_{1/2}$) stands for monofunctional unit, i.e. monofunctional with respect to the connection to other Si atoms; D ($\text{R}_2\text{SiO}_{2/2} = \text{R}_2\text{SiO}$) is difunctional, T ($\text{RSiO}_{3/2}$) Trifunctional and Q ($\text{SiO}_{4/2} = \text{SiO}_2$) is tetrafunctional</p>
T-resin	Branched structure which contains only T-units, i.e. is prepared from trialkoxysilanes or trichlorosilanes
MQ-resin	Resin which contains M and Q units, i.e. prepared from tetraalkoxysilanes, e.g. TEOS and monoalkoxysilanes
MDTQ-resin	contain all four elements
Silsesquioxane	Resin which falls under the stoichiometric formula $\text{RSiO}_{3/2}$ (silsesqui means one and a half), e.g. a T-resin
Curing systems	The three most important ways to harden or cure siloxanes are hydrosilation-, condensation- or radical cure
Hydrosilation cure	The cure is established via the hydrosilation (or hydrosilylation or addition) reaction $\text{Si-CH=CH}_2 + \text{H-Si} \rightarrow \text{Si-CH}_2\text{-CH}_2\text{-Si}$, e.g. ${}^{\text{Vi}}\text{MD}_x\text{M}^{\text{Vi}} + \text{MDH}_3\text{D}_x\text{M} \rightarrow$ elastomeric material (3d x-linked), which is done in most cases with the help of a platinum catalyst, e.g. platonic acid, platinum compounds or karstedt catalyst.
Condensation cure	The cure is established via condensation reactions such as $\text{Si-OR} + \text{HO-Si} \rightarrow \text{Si-O-Si}$ or $\text{Si-OH} + \text{HO-Si} \rightarrow \text{Si-O-Si}$, e.g. $\text{HOMD}_x\text{MOH} + (\text{RO})_3\text{SiR} \rightarrow$ elastomer which is performed with the help of a variety of condensation catalysts, e.g. tin compounds, acids or bases.
Radical or peroxide cure	the cure is established via the reaction $\text{Si-CH}_3 + \text{CH}_3\text{-Si} \rightarrow \text{Si-CH}_2\text{-CH}_2\text{-Si}$ which is done in most cases with the help of a peroxide catalyst.

Synonyms and Keywords

In patent documents the following expressions "platin" or "karstedt" are often used as synonyms when searching for "platinum catalyst"

MD_xM	Non functional PDMS, i.e. polydimethylsiloxane
MM	Hexamethyldisiloxane
${}^{\text{Vi}}\text{MD}_x\text{M}^{\text{Vi}}$	PDMS having vinyl end groups
$\text{MDH}_x\text{D}_x\text{M}$	PDMS having SiH side groups

C08L 83/06

containing silicon bound to oxygen-containing groups ([C08L 83/12](#) takes precedence)

Definition statement

This place covers:

Polysiloxanes containing silicon bound to oxygen-containing groups, e.g. (meth)acrylates, epoxy groups, glycol or polyhydric alcohol substituents or carbinols, i.e. Si-CH₂-OH.

References

Limiting references

This place does not cover:

Compositions of blok or graft copolymers containing polysiloxane sequences and containing polyether sequences	C08L 83/12
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Special rules of classification

This group does not cover Si-OH and Si-OR groups that are classified in [C08L 83/04](#).

C08L 85/00

Compositions of macromolecular compounds obtained by reactions forming a linkage in the main chain of the macromolecule containing atoms other than silicon, sulfur, nitrogen, oxygen and carbon; Compositions of derivatives of such polymers

Definition statement

This place covers:

Compositions comprising macromolecular compounds corresponding to groups [C08G 79/00](#), e.g. containing Al or Sn.

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 85/02

containing phosphorus

Definition statement

This place covers:

Compositions of polymers containing phosphorus, e.g. polyphosphates or polyphosphazenes.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of phosphorous containing polymers	C08G 79/02 - C08G 79/06
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C08L 85/04

containing boron

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Synthesis of Boron containing polymers	C08G 79/08
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C08L 87/00

Compositions of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds

Definition statement

This place covers:

Compositions comprising unspecific macromolecular compounds, obtained by step polymerisation reactions and addition polymerization reactions.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Macromolecular compounds obtained by interreacting polymers in the absence of monomers	C08G 81/02 - C08G 81/024
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Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 89/00

Compositions of proteins; Compositions of derivatives thereof (foodstuff preparations [A23J 3/00](#))

Definition statement

This place covers:

Compositions of proteins or derivatives thereof corresponding to the following groups:

[C08H 1/00](#) - [C08H 1/06](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08H](#) as they are considered as protein derivatives per se.

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Foodstuff preparations	A23J 3/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00 , e.g. flours	C08L 99/00
Proteins or derivatives thereof per se	C08H 1/00 - C08H 1/06
Coating composition comprising proteins or protein derivatives	C09D 189/00 - C09D 189/06
Adhesive or binder composition comprising proteins or protein derivatives	C09J 189/00 - C09J 189/06

Special rules of classification

Reference [A23J 3/00](#) is non-limiting in the subclass/main group/subgroup [C08L 89/00](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

Last place priority rule:

Within each sub group of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Hydrogels are classified in [C08J 3/075](#) and [C08J 2300/00](#) - [C08J 2399/00](#) and the corresponding [C08L](#).

Example: Hydrogel of collagen is classified in [C08L 89/06](#), [C08J 3/075](#) and [C08J 2389/00](#).

C-sets classifications:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

- The compositions of this group are classified according to the relative proportions by weight percentage of the macromolecular constituents.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- Compositions containing a proteins or derivatives thereof and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb). The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).

Example 1: Composition consisting of gelatine and glass fibres (filler) is classified in [C08L 89/06](#), [C08K 7/14](#) and as ([C08K 7/14](#), [C08L 89/06](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 91/00

Compositions of oils, fats or waxes; Compositions of derivatives thereof

Relationships with other classification places

The use of oils, fats and waxes in cosmetics and other toilet preparations is further classified in one of [A61Q](#) together with [A61K 8/92](#).

Galenic compositions comprising natural resins are classified in [A61K 9/00](#).

The use of oils, fats and waxes as carriers in medicinal preparations is classified in [A61K 47/44](#).

The use of oils, fats and waxes in lubricants is classified in [C10M](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vulcanised oils; e.g. factice	C08H 3/00
Coating composition comprising oils, fats and waxes	C09D 191/00 - C09D 191/08
Adhesive or binder composition comprising oils, fats and waxes	C09J 191/00 - C09J 191/08

Special rules of classification

Last place priority rule:

Within each sub group of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- This group follows the special rules of classification in subclass [C08L](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

Example 1: A composition consisting of mineral wax and glass fibres (filler) is classified as ([C08K 7/14](#), [C08L 91/08](#)), in [C08L 91/08](#) and [C08K 7/14](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 91/04

Linnoxyn

Definition statement

This place covers:

Linnoxyn: an elastic solid formed by oxidation of linseed oil

C08L 93/00

Compositions of natural resins; Compositions of derivatives thereof (of polysaccharides [C08L 1/00](#) - [C08L 5/00](#); of natural rubber [C08L 7/00](#))

Definition statement

This place covers:

Compositions comprising natural resins, e.g. shellac, rosin and their derivatives corresponding to the groups: [C09F 1/00](#)

Relationships with other classification places

Grafted natural resins obtained by reaction of an unsaturated monomer onto a natural resin are classified in [C08F 253/00](#).

Galenic compositions comprising natural resins are classified in [A61K 9/00](#).

Please refer also to the corresponding part in [C09F 1/00](#).

References

Limiting references

This place does not cover:

Compositions of polysaccharides	C08L 1/00 - C08L 5/00
Compositions of natural rubber	C08L 7/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating composition comprising natural resins	C09D 193/00 - C09D 193/04
Purification or chemical modification of natural resins	C09F 1/00
Adhesive or binder composition comprising natural resins	C09J 193/00 - C09J 193/04

Special rules of classification

Last place priority rule:

Within each sub group of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- This group follows the special rules of classification in subclass [C08L](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C08La (Si), #C08Lb, and #C08Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

Example 1: A composition consisting of shellac and glass fibres (filler) is classified in [C08L 93/02](#) and [C08K 7/14](#) as well as ([C08K 7/14](#), [C08L 93/02](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C08Lz, #C09Dz, and #C09Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 95/00

Compositions of bituminous materials, e.g. asphalt, tar, pitch

Definition statement

This place covers:

- Pure bitumen or asphalt, since there is no corresponding single polymer class.
- Compositions of bitumen or asphalt irrespective of their intended use as well as mixture design methods
- Aqueous compositions of bitumen or asphalt, e.g. emulsions, irrespective of their intended use as well as mixture design methods for obtaining said aqueous compositions

Relationships with other classification places

Relationship with other subclasses of class [C08](#) and [C09](#)

Attention is drawn to the corresponding paragraph after the [C08L](#) title.

[C08K](#) encompass the use of ingredients for bituminous materials.

Relationships with other classification places

[B03B](#), [B32B](#), [C04B](#), [C09D](#), [C09J](#), [C09K](#), [D06N](#), [E01C](#) and [E04D](#) encompass applications of bituminous compositions.

[C10C](#) and [C10G](#) encompass the production or working-up of (pure) bitumen.

The rules of all these subclasses should be followed for reasons of consistency, nevertheless additional multiple classification might be mandatory.

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

General arrangement of separating plant, e.g. flow sheets specially adapted for bitumen or recycling of bitumen or asphalt containing materials	B03B 9/02 , B03B 9/065
Layered products essentially comprising bituminous or tarry substances	B32B 11/00
Treatment of fillers specially adapted to enhance their filling properties in mortars, concrete or artificial stone by coating or impregnation with bituminous materials	C04B 20/1044
Compositions of mortars, concrete or artificial stone, containing bituminous materials	C04B 26/26
Use of inorganic or organic non-macromolecular substances as compounding ingredients, e.g. mixtures of bitumen and aggregate or bitumen and sulphur	C08K 3/00 - C08K 13/00
Printing inks based upon bitumen	C09D 11/12
Coating compositions based on bituminous materials	C09D 195/00
Adhesives based on bituminous materials	C09J 195/00
Working-up pitch, asphalt, bitumen	C10C 3/00
Production of liquid hydrocarbon mixtures from oil-shale, oil-sand, or non-melting solid carbonaceous or similar materials	C10G 1/00
Roofing felt i.e. fibrous webs coated with bitumen	D06N 5/00
Coherent pavings made in situ of bituminous binders	E01C 7/18 - E01C 7/24 , E01C 7/353
Special pavings and pavings for special parts of roads or airfields	E01C 9/00
Details of pavings, methods or materials for repairing pavings	E01C 11/005
Machines, tools or auxiliary devices for preparing or distributing paving materials, for working the placed materials, or for forming, consolidating, or finishing the paving	E01C 19/00
Roof covering by making use of flexible material, e.g. supplied in roll form by making use of compounded or laminated materials, e.g. metal foils or plastic films coated with bitumen	E04D 5/10
Roof covering like build-up roofs, i.e. consisting of two or more layers bonded together in situ, at least one of the layers being of watertight composition	E04D 11/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polymeric products of isocyanates or isothiocyanates characterised by the compounds used containing active hydrogen are bituminous compounds	C08G 18/6476
Sealing materials based upon bituminous compositions	C09K 3/10 , C09K 3/12 , C09K 3/18

Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C8La, #C8La (Si), #C8Lb, and #C8Lb (Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

- In addition to the C-sets, the relevant orthogonal indexing Code ([C08L 2555/00](#) - [C08L 2555/86](#)) characterising essential features such as constituents and/or parameters should also be given.

Example 1: A blend of 80 parts bitumen and 20 parts polyethylene is classified as ([C08L 95/00](#), [C08L 23/06](#)) and [C08L 2555/86](#).

Example 2: A composition of 5 parts bitumen and 95 parts stone aggregate is classified as ([C08K 3/36](#), [C08L 95/00](#)), in [C08L 95/00](#) and [C08L 2555/52](#).

Example 3: A composition of 4 parts bitumen, 1 part of polyethylene and 95 parts stone aggregate is classified as ([C08L 95/00](#), [C08L 23/06](#), [C08K 3/36](#)), in [C08L 2555/52](#) and [C08L 2555/86](#).

Example 4: A roofing felt comprising an undefined bitumen is classified in [D06N 5/00](#). A roofing felt comprising bitumen having a certain needle penetration is classified in [D06N 5/00](#) and [C08L 95/00](#). A roofing felt comprising bitumen and vegetable oil is classified in [D06N 5/00](#), as ([C08K 5/103](#), [C08L 95/00](#)), in [C08L 95/00](#) and in [C08L 2555/64](#).

Example 5: A pavement structure comprising an undefined asphalt (an undefined mixture of bitumen and aggregate) is classified in [E01C 7/18](#). A pavement structure comprising a designed asphalt mixture (a mixture of bitumen and stone aggregate obtained by applying a defined mixture design method) is classified in [E01C 7/18](#), as ([C08K 3/36](#), [C08L 85/00](#)), in [C08L 95/00](#), [C08L 2555/10](#) and [C08L 2555/52](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Warning: as a general rule it must be noted that terms are often interchangeable, have overlapping definitions and may have a different meaning in different parts of the world. Extending the definition of any term is generally better than maintaining a narrow definition. Guidance of term definitions can be found in (international) standards, e.g. EN, DIN, ASTM, ISO, GB, JIS or KS.

Aggregate	Granular or particulate, normally mineral, material, including dust, sand, gravel, crushed stone, cement, slag, glass or cullet for use in bituminous mixtures for roads, airfields or other trafficked areas.
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Asphalt	Mixture of mineral aggregate and a bituminous binder (EN 12597); alternatively, asphalt is a dark brown to black cementitious material in which the predominating constituents are bitumens which occur in nature or are obtained in petroleum processing (ASTM D8-02).
Asphaltum	See Asphalt; old expression therefore.
Bitumen	Virtually involatile, adhesive and water-proofing material derived from crude petroleum, or present in natural asphalt, which is completely or nearly completely soluble in toluene, and very viscous or nearly solid at ambient temperatures (EN 12597); alternatively, bitumen is a class of black or dark-coloured (solid, semi-solid, or viscous) cementitious substances, natural or manufactured, composed principally of high molecular weight hydrocarbons, of which asphalts, tars, pitches and asphaltites are typical (ASTM D8-02).
Bitumen emulsion	Emulsion in which the dispersed phase is bitumen and the continuous phase is, unless stated otherwise, assumed to be water or an aqueous solution (EN 12597); alternatively, a suspension of minute globules of bituminous material in water or an aqueous solution, or, a suspension of minute globules of water or of an aqueous solution in a liquid bituminous material (ASTM D8-02)
Bituminous binder	Adhesive material containing any unmodified, modified, oxidised, cut-back, fluxed or emulsified bitumen. Tar and pitch are not included
Cold Mix Asphalt	Asphalt produced between 0°C and 35°C (32F- 86F)
Flux	Fluid added to another to reduce its viscosity (EN 12597); alternatively, a bituminous material, generally liquid, used for softening other bituminous materials (ASTM D8-02).
Half Warm Mix Asphalt	Asphalt which is produced between 65°C and 100°C (149F-212F)
Hot Melt Asphalt	Asphalt which is produced above 140°C (284F)
Low Energy Asphalt	Asphalt produced between 90°C and 105°C (194F-221F), most typically at 95°C (203F)
Low Temperature Asphalt	Asphalt produced at 90°C (194F)
Mixture design method	An iterating sequence of process steps and/or test methods to establish the optimal composition of a bituminous mixture for obtaining one or more preset characteristic(s) or property(-ies) of said bituminous mixture during the envisaged application
Oil	An oil is typically liquid at ambient temperatures and does not mix with water but may mix with other oils and organic solvents. The term oil encompasses vegetable oils, organic oils, mineral oils, volatile essential oils, petrochemical oils or synthetic oils.
Pitch	Petroleum-derived pitch is often called bitumen. Pitch produced from plants is often indicated as resin. It is obtained by dry-distillation. It is chemical distinct from bitumen. Tar and pitch are used interchangeably. Pitch is considered to be more viscous as tar.
Rejuvenating agent	Agent, component or composition which rejuvenates, i.e. alters or improves the properties of recycled or reclaimed asphalt or paving mixtures.

Renewable natural resource	Resources that are replaced by naturally processes and replenished with the passage of time. Said resources are part of our natural environment and form our eco-system. Plant or animal waxes are renewable, petroleum derived waxes are not.
Tar	Tar is produced from wood, roots or other organic origin or from petroleum or coal by destructive distillation under pyrolysis. It is chemical distinct from bitumen. Tar and pitch are used interchangeably, but tar is considered to be more liquid as pitch.
Warm Mix Asphalt	Asphalt produced between 100°C and 140°C (212F-284F)
Wax	Wax refers to a class of chemical compounds that are plastic, i.e. malleable near ambient temperatures. Waxes generally melt above 45°C and give low viscosity liquids. Plant and animal waxes are typically esters of fatty acids and long chain alcohols. Petroleum derived waxes are typically long-chain hydrocarbons lacking functional groups.

Synonyms and Keywords

Bitumen	Asphalt
Bituminous material	Bitumen, asphalt, tar or pitch
CMA	Cold mix asphalt or cold mix
Crumb rubber	Reclaimed or recycled tyre rubber, or other rubber waste or particles are also encompassed.
Cullet	Scraps of broken or waste glass, granular reclaimed or recycled glass
Cut-back bitumen	Cut-back asphalt
Emulsion	Aqueous or non-aqueous emulsion, anionic or cationic emulsion
HMA	Hot melt asphalt
HWMA	Half warm mix asphalt or half warm asphalt
Hydrocarbon binder	Adhesive material containing bitumen, asphalt, tar or pitch, or any combination thereof
LEA	Low energy asphalt, low emission asphalt or LEA-CO
LTA	Low temperature asphalt
Paving bitumen	Asphalt cement
PMA	Polymer modified asphalt or bitumen
RA	Recycling agent or rejuvenating agent
RAP	Reclaimed or recycled asphalt pavement or asphalt paving mixture
WMA	Warm mix asphalt

C08L 97/00

Compositions of lignin-containing materials (of polysaccharides [C08L 1/00](#) - [C08L 5/00](#))

Definition statement

This place covers:

Compositions of lignin-containing materials corresponding to the following groups: [C08H 6/00](#) or [C08H 8/00](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08H](#).

References

Limiting references

This place does not cover:

Compositions of polysaccharides	C08L 1/00 - C08L 5/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00 , e.g. flours	C08L 99/00
Macromolecular compounds derived from lignin	C08H 6/00
Macromolecular compounds derived from lignocellulosic materials	C08H 8/00
Coating composition comprising lignin-containing materials	C09D 197/00 - C09D 197/02
Adhesive or binder composition comprising lignin-containing materials	C09J 197/00 - C09J 197/02 .

Special rules of classification

Last place priority rule:

Within each sub group of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Hydrogels are classified in [C08J 3/075](#) and [C08J 2300/00](#) - [C08J 2399/00](#) and the corresponding [C08L](#).

Example: Hydrogel of lignocellulose is classified in [C08L 97/02](#), [C08J 3/075](#) and [C08J 2397/02](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

- Compositions containing a lignin-containing material and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb), if applicable. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).

Example 1: A composition consisting of lignocellulose and glass fibres (filler) is classified in [C08L 97/02](#) and [C08K 7/14](#), as well as ([C08K 7/14](#), [C08L 97/02](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 99/00

Compositions of natural macromolecular compounds or of derivatives thereof not provided for in groups [C08L 89/00](#) - [C08L 97/00](#)

Definition statement

This place covers:

Compositions comprising natural macromolecular compounds or derivatives thereof corresponding to the following group: [C08H 99/00](#)

Relationships with other classification places

Covalently or ionically crosslinked gels are classified in [C08H](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions based on starch or derivatives thereof	C08L 3/00
Composition based on lignin-containing materials, e.g. lignin, cork, lignocellulose or wood	C08L 97/00
Natural macromolecular compounds or derivatives thereof	C08H 99/00
Coating composition comprising natural macromolecular compounds	C09D 199/00
Adhesive or binder composition comprising natural macromolecular compounds	C09J 199/00

Special rules of classification

Last place priority rule:

Within each sub group of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Natural macromolecular materials either in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of [C08L](#).

- Hydrogels are classified in [C08J 3/075](#) and [C08J 2300/00 - C08J 2399/00](#) and the corresponding [C08L](#).

Example: Hydrogel of flour is classified in [C08L 99/00](#), [C08J 3/075](#) and [C08J 2399/00](#).

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

- The macromolecular compound in majority is given a symbol as a base symbol, and the macromolecular compounds in minority are given symbols as subsequent symbols in the C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- Compositions containing a natural macromolecular material and an inorganic or non-macromolecular organic additive as compounding agent are classified in the form of C-Sets (i.e. #C8Ka and #C8Lb). The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of subclasses [C08K](#) and [C08L](#).

Example 1: A composition consisting of flour and glass fibres (filler) is classified in [C08L 99/00](#) and [C08K 7/14](#), as well as ([C08K 7/14](#), [C08L 99/00](#)).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 101/00

Compositions of unspecified macromolecular compounds

Definition statement

This place covers:

Blends of polymers in which the polymer in majority is unspecified.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processes for mixing polymers	C08J 3/005
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Special rules of classification

C-Sets classification:

In this group, C-Sets (e.g. #C08La, #C8La (Si), #C8Lb, and #C8Lb(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in [C08L](#).

C-Sets searches:

C-Sets search queries may be made according to C-Sets classification rules described in [C08L](#) and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

C08L 101/005

{Dendritic macromolecules}

Definition statement

This place covers:

Blends of polymers in which the polymer in majority is unspecified and the polymer in minority is a dendritic polymer.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dendritic polymers	C08G 83/002
Dendrimers	C08G 83/003
Hyperbranched polymers	C08G 83/005
Coating compositions corresponding to compositions of C08L 101/005	C09D 201/005
Adhesive compositions corresponding to compositions of C08L 101/005	C09J 201/005

C08L 101/02

characterised by the presence of specified groups {, e.g. terminal or pendant functional groups}

Definition statement

This place covers:

Blends of polymers in which the unspecified polymer is characterised by the presence of functional groups.

C08L 101/025

{containing nitrogen atoms}

Definition statement

This place covers:

Blends of polymers in which the unspecified polymer is characterised by the presence of functional groups containing nitrogen, e.g. carbamates.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating compositions corresponding to compositions of C08L 101/025	C09D 201/025
Adhesive compositions corresponding to compositions of C08L 101/025	C09J 201/025

C08L 101/04**containing halogen atoms****Definition statement***This place covers:*

Blends of polymers in which the unspecified polymer is characterised by the presence of halogen atoms.

C08L 101/06**containing oxygen atoms** [{\(C08L 101/025 takes precedence\)}](#)**Definition statement***This place covers:*

Blends of polymers in which the unspecified polymer is characterised by the presence of functional groups containing oxygen, e.g. hydroxyl, or carboxyl groups.

Special rules of classification

[C08L 101/025](#) takes precedence over this group.

C08L 101/08**Carboxyl groups****Definition statement***This place covers:*

Blends of polymers in which the unspecified polymer is characterised by the presence of carboxyl groups.

C08L 101/10**containing hydrolysable silane groups****Definition statement***This place covers:*

Blends of polymers in which the unspecified polymer is characterised by the presence of functional groups containing silicone, e.g. silanes or silanol groups.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Polymers of compounds having one or more unsaturated aliphatic radicals and containing silicon	C08L 43/04
Polysiloxane compositions	C08L 83/00 - C08L 83/16
Coating compositions of polymers classified in C08L 43/04	C09D 143/04
Polysiloxane coating compositions	C09D 183/00 - C09D 183/16

Coating compositions in which the unspecified polymer contains hydrolysable silane groups	C09D 201/10
Adhesive compositions of polymers classified in C08L 43/04	C09J 143/04
Polysiloxane adhesive compositions	C09J 183/00 - C09J 183/16
Adhesive compositions in which the unspecified polymer contains hydrolysable silane groups	C09J 201/10

C08L 101/12

characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity (liquid crystal materials or compositions [C09K 19/00](#))

Definition statement

This place covers:

Polymer compositions characterised not by chemical nature, but by physical features.

References

Limiting references

This place does not cover:

Liquid crystal materials or compositions	C09K 19/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Liquid crystal materials	C09K 19/00
Intrinsically conductive polymers	H01B 1/124

C08L 101/14

the macromolecular compounds being water soluble or water swellable, e.g. aqueous gels

Definition statement

This place covers:

Super-absorbent polymer compositions.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Liquid-swellable gel-forming materials, e.g. super-absorbents	A61L 15/60
Processes for making macromolecular gels	C08J 3/075

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

SAP	Super absorbent polymer
SAH	Super-absorbent hydrogel

C08L 101/16

the macromolecular compounds being biodegradable

Definition statement

This place covers:

Polymer compositions where the polymer in majority is biodegradable.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of cellulose	C08L 1/00- C08L 1/32
Compositions of starch	C08L 3/00- C08L 3/20
Compositions of dextran, alginic acid, pectin, etc.	C08L 5/00- C08L 5/16
Compositions of aliphatic polyesters	C08L 67/04
Compositions of proteins	C08L 89/00- C08L 89/06