

CPC**COOPERATIVE PATENT CLASSIFICATION****C11D**

DETERGENT COMPOSITIONS (preparations specially adapted for washing the hair **A61K 7/075**; methods or apparatus for disinfection or sterilisation **A61L**; special washing compositions for cleaning semi-permeable membranes **B01D 65/06**); **USE OF SINGLE SUBSTANCES AS DETERGENTS; SOAP OR SOAP-MAKING; RESIN SOAPS; RECOVERY OF GLYCEROL**

NOTE

Documents classified in groups [C11D 1/37](#), [C11D 1/645](#) to [C11D 1/655](#), [C11D 1/825](#) to [C11D 1/86](#), [C11D 1/94](#) to [C11D 1/945](#) and [C11D 10/00](#) to [C11D 10/06](#), are indexed using codes chosen from [C11D 1/00](#) to [C11D 1/92](#) to provide information on the individual ingredients on the compositions

WARNING

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

[C11D 1/68](#) covered by [C11D 3/2003](#)
[C11D 1/70](#) covered by [C11D 3/2003](#)
[C11D 3/44](#) covered by [C11D 3/43](#)
[C11D 3/46](#) covered by [C11D 3/2079](#), [C11D 9/48](#)
[C11D 3/60](#) covered by [C11D 3/00](#)
[C11D 7/18](#) covered by [C11D 3/39](#)
[C11D 7/38](#) covered by [C11D 3/39](#)
[C11D 7/42](#) covered by [C11D 3/386](#)
[C11D 7/52](#) covered by [C11D 7/50](#)
[C11D 7/54](#) covered by [C11D 3/395](#)
[C11D 7/56](#) covered by [C11D 3/395](#)
[C11D 7/60](#) covered by [C11D 7/00](#)
[C11D 9/20](#) covered by partly covered by [C11D 9/444](#)
[C11D 9/50](#) covered by [C11D 3/48](#)
[C11D 9/60](#) covered by [C11D 9/00](#)
[C11D 10/02](#) covered by [C11D 3/00](#)
[C11D 10/06](#) covered by [C11D 9/00](#)

C11D 1/00

Detergent compositions based essentially on surface-active compounds; Use of these compounds as a detergent

NOTE

In groups [C11D 1/02](#) to [C11D 1/94](#), in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

C11D 1/002

. {Surface-active compounds containing sulfur (**SO₃** and **SO₄**, [C11D 1/12](#); sulfonium compounds [C11D 1/60](#); sulfoxides [C11D 1/755](#); sulfobetaines [C11D 1/92](#))}

C11D 1/004

. {Surface-active compounds containing F}

C11D 1/006

.. {Surface-active compounds containing fluorine and phosphorus}

- C11D 1/008 . {Polymeric surface-active agents (see [C11D 1/48](#), [C11D 1/662](#), [C11D 1/76](#))}
- C11D 1/02 . Anionic compounds {([C11D 1/002](#), [C11D 1/004](#), [C11D 1/008](#) take precedence)}
- C11D 1/04 .. Carboxylic acids or salts thereof {see also [C11D 9/005](#)}
- C11D 1/06 ... Ether- or thio-ether carboxylic acids
- C11D 1/08 ... Polycarboxylic acids containing no nitrogen or sulfur
- C11D 1/10 ... Amino-carboxylic acids; Imino-carboxylic acids; Fatty acid condensates thereof {(betaines [C11D 1/90](#))}
- C11D 1/12 .. Sulfonic acids or sulfuric acid esters; Salts thereof
- C11D 1/123 ... {derived from carboxylic acids, e.g. sulfosuccinates (from fatty acids see [C11D 1/28](#))}
- C11D 1/126 ... {Acylisethionates}
- C11D 1/14 ... derived from aliphatic hydrocarbons or mono-alcohols
- C11D 1/143 {Sulfonic acid esters}
- C11D 1/146 {Sulfuric acid esters}
- C11D 1/16 ... derived from divalent or polyvalent alcohols
- C11D 1/18 ... derived from amino alcohols
- C11D 1/20 Fatty acid condensates
- C11D 1/22 ... derived from aromatic compounds
- C11D 1/24 containing ester or ether groups directly attached to the nucleus
- C11D 1/26 ... derived from heterocyclic compounds
- C11D 1/28 ... Sulfonation products derived from fatty acids or their derivatives, e.g. esters, amides
- C11D 1/29 ... Sulfates of polyoxyalkylene ethers
- C11D 1/30 ... Sulfonation products derived from lignin
- C11D 1/32 .. Protein hydrolysates; Fatty acid condensates thereof
- C11D 1/34 .. Derivatives of acids of phosphorus
- C11D 1/342 ... {Phosphonates; Phosphinates; Phosphonites}
- C11D 1/345 ... {Phosphates; Phosphites}
- C11D 1/347 ... {Other P-containing anionic compounds ([C11D 1/006](#), [C11D 1/34](#) take precedence)}
- C11D 1/36 .. of unknown constitution {e.g. natural products}
- C11D 1/37 .. Mixtures of compounds all of which are anionic
- C11D 1/38 . Cationic compounds {([C11D 1/002](#), [C11D 1/004](#), [C11D 1/008](#) take precedence)}
- C11D 1/385 .. {Cationic compounds containing P (phosphonium compounds [C11D 1/60](#))}
- C11D 1/40 .. Monoamines or polyamines; Salts thereof
- C11D 1/42 .. Amino alcohols or amino ethers
- C11D 1/44 ... Ethers of polyoxyalkylenes with amino alcohols; Condensation products of epoxyalkanes with amines
- C11D 1/46 .. Esters of carboxylic acids with amino alcohols; Esters of amino carboxylic acids with alcohols
- C11D 1/48 .. N-containing polycondensation products
- C11D 1/50 .. Derivatives of urea, thiourea, cyanamide, guanidine or urethanes

- C11D 1/52 .. Carboxylic amides, alkylolamides or imides { or their condensation products with alkylene oxides}
- WARNING**
- Until September 2008, when classification was made, group [C11D 3/07](#) took precedence over group [C11D 1/52](#)
- C11D 1/521 ... {Carboxylic amides (R1-CO-NR2R3), where R1, R2 and R3 are alkyl or alkenyl groups}
- C11D 1/523 ... {Carboxylic alkylolamides, or dialkylolamides, or hydroxycarboxylic amides (R1-CO-NR2R3), where R1, R2 or R3 contain one hydroxy group per alkyl group}
- C11D 1/525 ... {Carboxylic amides (R1-CO-NR2R3), where R1, R2 or R3 contain two or more hydroxy groups per alkyl group, e.g. R3 being a reducing sugar rest}
- C11D 1/526 ... {Carboxylic amides (R1-CO-NR2R3), where R1, R2 or R3 are polyalkoxylated}
- C11D 1/528 ... {Carboxylic amides (R1-CO-NR2R3), where at least one of the chains R1, R2 or R3 is interrupted by a functional group, e.g. a -NH-, -NR-, -CO-, or -CON- group (ethers [C11D 1/526](#))}
- C11D 1/54 .. Hydrazides of carboxylic acids
- C11D 1/56 .. containing nitro or nitroso groups
- C11D 1/58 .. Heterocyclic compounds
- C11D 1/60 .. Sulfonium or phosphonium compounds
- C11D 1/62 .. Quaternary ammonium compounds
- C11D 1/64 .. of unknown constitution {e.g. natural products}
- C11D 1/645 .. Mixtures of compounds all of which are cationic
- C11D 1/65 .. Mixtures of anionic with cationic compounds
- C11D 1/652 ... {Mixtures of anionic compounds with carboxylic amides or alkylol amides}
- C11D 1/655 ... Mixtures of sulfonated products with alkylolamides of carboxylic acids

WARNING

Until September 2008, when classification was made, group [C11D 3/066](#) took precedence over group [C11D 1/655](#)

- C11D 1/66 . Non-ionic compounds {([C11D 1/002](#), [C11D 1/004](#), [C11D 1/008](#) take precedence)}
- C11D 1/662 .. {Carbohydrates or derivatives}
- C11D 1/665 .. {Arsine oxides}
- C11D 1/667 .. {Neutral esters e.g. sorbitan esters; see also [C11D 1/74](#) and [C11D 1/78](#)}
- C11D 1/72 .. Ethers of polyoxyalkylene glycols

WARNING

Until September 2008, when classification was made, group [C11D 3/075](#) took precedence over group [C11D 1/72](#)

- C11D 1/721 ... { End blocked ethers}
- C11D 1/722 .. Ethers of polyoxyalkylene glycols having mixed oxyalkylene groups; { Polyalkoxylated fatty alcohols or polyalkoxylated alkylaryl alcohols with mixed

- oxyalkylene groups ([C11D 1/721](#) takes precedence)}
- C11D 1/74 .. Carboxylates or sulfonates {esters} of polyoxyalkylene glycols
 - C11D 1/75 .. Amino oxides
 - C11D 1/755 .. Sulfoxides
 - C11D 1/76 .. Synthetic resins containing no nitrogen
 - C11D 1/78 .. Neutral esters of acids of phosphorus
 - C11D 1/79 .. Phosphine oxides
 - C11D 1/80 .. Derivatives of lignin containing no sulfo- or sulfate groups
 - C11D 1/82 .. Compounds containing silicon
 - C11D 1/825 .. Mixtures of compounds all of which are non-ionic
 - C11D 1/8255 ... {containing a combination of compounds differently alcoxylised or with differently alkylated chains}
 - C11D 1/83 .. Mixtures of non-ionic with anionic compounds
 - C11D 1/8305 ... {containing a combination of non-ionic compounds differently alcoxylised or with different alkylated chains}
 - C11D 1/831 ... of sulfonates with ethers of polyoxyalkylenes without phosphates
 - C11D 1/835 .. Mixtures of non-ionic with cationic compounds
 - C11D 1/8355 ... {containing a combination of non-ionic compounds differently alcoxylised or with different alkylated chains}

 - C11D 1/86 . {Ternary} Mixtures of anionic, cationic, and non-ionic compounds

 - C11D 1/88 . Ampholytes; Electroneutral compounds {([C11D 1/002](#), [C11D 1/004](#), [C11D 1/008](#) take precedence)}
 - C11D 1/883 .. {Aminimide (= ammonioamidates)}
 - C11D 1/886 .. {Ampholytes containing P}
 - C11D 1/90 .. Betaines
 - C11D 1/92 .. Sulfobetaines {Sulfitobetaines}
 - C11D 1/94 .. Mixtures with anionic, cationic, or non-ionic compounds
 - C11D 1/945 ... {containing a combination of non-ionic compounds differently alcoxylised or with different alkylated chains}

C11D 3/00 **Other compounding ingredients of detergent compositions covered in group [C11D 1/00](#)**

NOTE

Documents classified in group [C11D 3/0005](#) are also classified in other groups of subclass [C11D](#) according to the chemical nature of the compounds as such

- C11D 3/0005 . {Other compounding ingredients characterised by their effect}
- C11D 3/001 .. {Softening compositions}
- C11D 3/0015 ... {liquid}
- C11D 3/0021 .. {Dye-stain or dye-transfer inhibiting compositions}
- C11D 3/0026 .. {Low foaming or foam regulating compositions}

C11D 3/0031	..	{Carpet, upholstery, fur, and leather cleansers}
C11D 3/0036	..	{ Soil deposition preventing compositions; Antiredeposition agents}
C11D 3/0042	..	{Reducing agents}
C11D 3/0047	..	{pH regulated compositions}
C11D 3/0052	..	{Gas evolving or heat producing compositions}
C11D 3/0057	..	{Oven-cleaning compositions}
C11D 3/0063	..	{Photo- activating compounds}
C11D 3/0068	..	{Deodorant compositions}
C11D 3/0073	..	{Anticorrosion compositions}
C11D 3/0078	..	{ Compositions for cleaning contact lenses, spectacles, lenses (disinfecting contact lenses A61L 2/00 ; mechanical cleaning G02C 13/00)}

NOTE

In groups [C11D 3/02](#) to [C11D 3/39](#), in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

C11D 3/0084	..	{ Antioxidants; Free-radical scavengers}
C11D 3/0089	..	{ Pearlescent compositions; Opacifying agents}
C11D 3/0094	..	{ High foaming compositions}

C11D 3/02	.	Inorganic compounds; {Elemental compounds}
C11D 3/04	..	Water-soluble compounds
C11D 3/042	...	{ Acids}
C11D 3/044	...	{ Hydroxides, bases}
C11D 3/046	...	{ Salts}
C11D 3/048	....	{ Nitrates, nitrites}
C11D 3/06	...	Phosphates, including polyphosphates

WARNING

From October 2008 onwards, the following subgroups of [C11D 3/06](#) are no longer used for the classification of new documents Groups [C11D 3/065](#), [C11D 3/066](#), [C11D 3/07](#) and [C11D 3/075](#)

C11D 3/062	....	{ Special methods concerning phosphates}
C11D 3/065	....	in admixture with sulfonated products
C11D 3/066	.....	and with alkyloamides of carboxylic acids
C11D 3/07	....	in admixture with alkyloamides of carboxylic acids
C11D 3/075	....	in admixture with ethers of polyoxyalkylenes
C11D 3/08	...	Silicates
C11D 3/10	...	Carbonates; { Bicarbonates}
C11D 3/12	..	Water-insoluble compounds
C11D 3/1206	...	{free metals, e.g. aluminium grit or flakes}
C11D 3/1213	...	{Oxides, hydroxides, e.g. Al ₂ O ₃ , TiO ₂ , CaO, Ca(OH) ₂ }
C11D 3/122	...	{Sulfur-containing, e.g. sulfates, sulfites, gypsum}

C11D 3/1226	...	{Phosphorus containing}
C11D 3/1233	...	{Carbonates, e.g. calcite, dolomite}
C11D 3/124	...	{Silicon containing, e.g. silica, silex, quartz, glass beads}
C11D 3/1246	.....	{Silicates, e.g. diatomaceous earth}
C11D 3/1253	.....	{Layer silicates, e.g. talcum, kaolin, clay, bentonite, smectite, montmorillonite, hectorite, attapulgite}
C11D 3/126	.....	{in solid compositions}
C11D 3/1266	.....	{in liquid compositions}
C11D 3/1273	.....	{ Crystalline layered silicates of type NaMeSixO2x+1YH2O}
C11D 3/128	.....	{Aluminium silicates, e.g. zeolites (C11D 3/1253 takes precedence)}
C11D 3/1286	.....	{Stabilised aqueous aluminosilicate suspensions}
C11D 3/1293	.....	{Feldspar; Perlite; Pumice; Portland cement}
C11D 3/14	...	Fillers; Abrasives; {Abrasive compositions; Suspending or absorbing agents not provided for in one single group of C11D 3/12 ; Specific features concerning abrasives, e.g. granulometry, mixtures (dyes, pigments C11D 3/40)}
C11D 3/16	.	Organic compounds
C11D 3/162	..	{containing Si}
C11D 3/164	..	{containing a carbon-carbon triple bond}
C11D 3/166	..	{containing borium}
C11D 3/168	..	{Organometallic compounds or orgometallic complexes}
C11D 3/18	..	Hydrocarbons {(C11D 3/164 takes precedence)}
C11D 3/181	...	{linear}
C11D 3/182	...	{branched}
C11D 3/184	...	{unsaturated}
C11D 3/185	...	{cyclic}
C11D 3/187	...	{aromatic}
C11D 3/188	...	{Terpenes}
C11D 3/20	..	containing oxygen {(C11D 3/162 , C11D 3/164 , C11D 3/166 , C11D 3/168 take precedence)}
C11D 3/2003	...	{Alcohols; Phenols}

NOTE

In this group glucerol is not taken into account for applying the last place rule, when present in a mixture of alcohols or as an alternative from a series of alcohols

In case of mixtures of alcohols or of a list of alternatives, documents are classified in [C11D 3/2003](#), [C11D 3/2006](#) or [C11D 3/2041](#) and indexed for the individual alternatives using codes chosen from [C11D 3/2006](#) to [C11D 3/2065](#)

C11D 3/2006	.....	{Monohydric alcohols}
C11D 3/201	.....	{linear}
C11D 3/2013	.....	{ fatty or with at least 8 carbon atoms in the alkyl chain}
C11D 3/2017	.....	{branched}

C11D 3/202	.....	{ fatty or with at least 8 carbon atoms in the alkyl chain}
C11D 3/2024	.....	{cyclic; polycyclic}
C11D 3/2027	.....	{unsaturated}
C11D 3/2031	.....	{ fatty or with at least 8 carbon atoms in the alkenyl chain}
C11D 3/2034	.....	{aromatic}
C11D 3/2037	.....	{Terpenes}
C11D 3/2041	....	{Dihydric alcohols}
C11D 3/2044	.....	{linear}
C11D 3/2048	.....	{branched}
C11D 3/2051	.....	{cyclic; polycyclic}
C11D 3/2055	.....	{unsaturated}
C11D 3/2058	.....	{aromatic}
C11D 3/2062	.....	{Terpene}
C11D 3/2065	....	{Polyhydric alcohols}
C11D 3/2068	...	{Ethers}
C11D 3/2072	...	{Aldehydes-ketones}
C11D 3/2075	...	{Carboxylic acids-salts thereof}
C11D 3/2079	....	{ Monocarboxylic acids-salts thereof (soaps C11D 10/06 to C11D 10/04)}
C11D 3/2082	....	{Polycarboxylic acids-salts thereof}
C11D 3/2086	....	{Hydroxy carboxylic acids-salts thereof}
C11D 3/2089	....	{Ether acids-salts thereof}
C11D 3/2093	...	{Esters; Carbonates}
C11D 3/2096	...	{Heterocyclic compounds}
C11D 3/22	...	Carbohydrates or derivatives thereof {(graft polymers C11D 3/3788)}
C11D 3/221	....	{Mono, di- or trisaccharides or derivatives thereof}
C11D 3/222	....	{Natural or synthetic polysaccharides, e.g. cellulose, starch, gum, alginic acid, cyclodextrin}
C11D 3/223	.....	{oxidised}
C11D 3/225	.....	{etherified, e.g. CMC}
C11D 3/226	.....	{esterified}
C11D 3/227	.....	{with nitrogen-containing groups}
C11D 3/228	.....	{with phosphorus- or sulfur-containing groups}
C11D 3/24	..	containing halogen {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take precedence)}
C11D 3/245	...	{containing fluorine}
C11D 3/26	..	containing nitrogen {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take precedence)}
C11D 3/28	...	Heterocyclic compounds containing nitrogen in the ring
C11D 3/30	...	Amines; Substituted amines; { Quaternized amines}
C11D 3/32	...	Amides; Substituted amides
C11D 3/323	.....	{urea or derivatives thereof}
C11D 3/33	...	Amino carboxylic acids
C11D 3/34	..	containing sulfur {(C11D 3/162, C11D 3/164, C11D 3/166, C11D 3/168 take

precedence)}

NOTE

In this group in the absence of an indication to the contrary sulfur containing compounds are classified in the last appropriate place (see Note before group [C11D 3/00](#)) and indexed for the individual functional groups using codes chosen from [C11D 3/3409](#) to [C11D 3/34L](#)

In case of mixtures or a list of alternatives or Markush formulae each individual compound is classified and indexed according to Note 1.

C11D 3/3409	...	{Alkyl -, alkenyl -, cycloalkyl - or terpene sulfates or sulfonates}
C11D 3/3418	...	{Toluene -, xylene -, cumene -, benzene - or naphthalene sulfonates or sulfates}
C11D 3/3427	...	{containing thiol, mercapto or sulfide groups, e.g. thioethers, mercaptals}
C11D 3/3436	...	{containing disulfide groups}
C11D 3/3445	...	{containing sulfinio groups, e.g. dimethyl sulfoxide}
C11D 3/3454	...	{containing sulfone groups, e.g. vinyl sulfones}
C11D 3/3463	...	{containing thio sulfate or sulfite groups}
C11D 3/3472	...	{additionally containing -COOH groups or derivatives thereof}
C11D 3/3481	...	{containing sulfur in a heterocyclic ring, e.g. sultones, sulfolanies}
C11D 3/349	...	{additionally containing nitrogen atoms, e.g. nitro, nitroso, amino, imino, nitrilo, nitrile groups containing compounds or their derivatives, thio urea}
C11D 3/36	..	containing phosphorus {(C11D 3/162 , C11D 3/164 , C11D 3/166 , C11D 3/168 take precedence)}
C11D 3/361	...	{Phosphonates, phosphinates, phosphonites}
C11D 3/362	...	{Phosphates, phosphites}
C11D 3/364	...	{containing nitrogen}
C11D 3/365	...	{containing carboxyl groups}
C11D 3/367	...	{containing halogen}
C11D 3/368	.....	{containing fluorine}
C11D 3/37	..	Polymers {(polymeric surface-active agents C11D 1/008 ; carbohydrates C11D 3/22)}
C11D 3/3703	...	{Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
C11D 3/3707	.....	{Polyethers, e.g. polyalkyleneoxides}
C11D 3/3711	.....	{Polyacetal carboxylates}
C11D 3/3715	.....	{Polyesters; Polycarbonates}
C11D 3/3719	.....	{Polyamides; Polyimides}
C11D 3/3723	.....	{Polyamines, polyalkyleneimines}
C11D 3/3726	.....	{ Polyurethanes}
C11D 3/373	.....	{ containing silicones}
C11D 3/3734	.....	{Cyclic silicones}
C11D 3/3738	.....	{ Alkoxyated silicones}
C11D 3/3742	.....	{ Nitrogen containing silicones}
C11D 3/3746	...	{Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds}

C11D 3/3749	....	{Polyolefins; Halogenated polyolefins; Natural or synthetic rubber; Polyarylolefins; Halogenated polyarylolefins}
C11D 3/3753	....	{Polyvinylalcohol; Ethers or esters thereof}
C11D 3/3757	....	{(Co)polymerised carboxylic acids, -anhydrides, -esters in solid and liquid compositions}
C11D 3/3761	.....	{in solid compositions}
C11D 3/3765	.....	{in liquid compositions}
C11D 3/3769	....	{(Co)polymerised monomers containing nitrogen, e.g. carbonamides, nitriles, amines}
C11D 3/3773	.....	{in liquid compositions}
C11D 3/3776	.....	{Heterocyclic compounds e.g. lactam}
C11D 3/378	....	{(Co)polymerised monomers containing sulfur, e.g. sulfonate}
C11D 3/3784	....	{(Co)polymerised monomers containing phosphorus}
C11D 3/3788	...	{Graft polymers}
C11D 3/3792	...	{Amine oxide containing polymers}
C11D 3/3796	...	{ Amphoteric polymers; Zwitterionic polymers}
C11D 3/38	..	Products with no well-defined composition, {e.g. natural products}
C11D 3/381	...	{Microorganisms}
C11D 3/382	...	Vegetable products, e.g. soya meal, wood flour, sawdust
C11D 3/384	...	Animal products
C11D 3/3845	.....	{Antibodies}
C11D 3/386	...	Preparations containing enzymes, {e.g. protease, amylase}
C11D 3/38609	.....	{Protease or amylase in solid compositions only}
C11D 3/38618	.....	{Protease or amylase in liquid compositions only}
C11D 3/38627	.....	{containing lipase}
C11D 3/38636	.....	{containing enzymes other than protease, amylase, lipase, cellulase, oxidase, reductase}
C11D 3/38645	.....	{containing cellulase}
C11D 3/38654	.....	{containing oxidase, reductase}
C11D 3/38663	.....	{Stabilised liquid enzyme compositions (chemically modified or immobilised enzymes C11D 3/386 , C12N)}
C11D 3/38672	.....	{Granulated or coated enzymes}
C11D 3/38681	.....	{ Chemically modified or immobilised enzymes}
C11D 3/3869	.....	{ Enzyme enhancers or mediators}
C11D 3/39	.	Organic or inorganic per-compounds
C11D 3/3902	..	{combined with specific additives}
C11D 3/3905	...	{Bleach activators; Bleach catalysts}

NOTE

In the absence of an indication to the contrary activators or catalysts are classified in the last appropriate place

In case of mixtures or a list of alternatives documents are classified in [C11D 3/3905](#) or [C11D 3/3907](#) only and indexed for the individual

alternatives using codes chosen from [C11D 3/3907](#) to [C11D 3/3932](#)

C11D 3/3907	....	{Organic compounds}
C11D 3/391	.....	{Oxygen-containing compounds}
C11D 3/3912	.....	{derived from saccharides}
C11D 3/3915	.....	{Sulfur-containing compounds}
C11D 3/3917	.....	{Nitrogen-containing compounds}
C11D 3/392	.....	{Heterocyclic compounds, e.g. cyclic imides or lactames}
C11D 3/3922	.....	{Cyanamides}
C11D 3/3925	.....	{Nitriles; Isocyanates; Quarternary ammonium nitriles}
C11D 3/3927	.....	{Quarternary ammonium compounds (quarternary ammonium nitriles C11D 3/3925)}
C11D 3/393	.....	{Phosphorus, boron- or silicium-containing compounds}
C11D 3/3932	....	{Inorganic compounds or complexes}
C11D 3/3935	....	{ granulated, coated or protected}
C11D 3/3937	...	{Stablising agents}
C11D 3/394	....	{Organic compounds}
C11D 3/3942	..	{Inorganic per-compounds (C11D 3/3902 takes precedence)}
C11D 3/3945	..	{Organic per-compounds (C11D 3/3902 takes precedence)}
C11D 3/3947	..	{Liquid compositions}
C11D 3/395	.	Bleaching agents {(per-compounds C11D 3/39)}
C11D 3/3951	..	{combined with specific additives}
C11D 3/3953	..	{Inorganic bleaching agents (C11D 3/3951 takes precedence)}
C11D 3/3955	..	{Organic bleaching agents (C11D 3/3951 takes precedence)}
C11D 3/3956	..	{Liquid compositions}
C11D 3/3958	..	{combined with phosphates}
C11D 3/40	.	Dyes; {Pigments}
C11D 3/42	..	Brightening agents; {Blueing agents}
C11D 3/43	.	Solvents
C11D 3/48	.	Medical, disinfecting agents, disinfecting, antibacterial, germicidal or antimicrobial compositions
C11D 3/485	..	{ Halophors, e.g. iodophors}
C11D 3/50	.	Perfumes
C11D 3/502	..	{Protected perfumes}
C11D 3/505	...	{encapsulated or adsorbed on a carrier, e.g. zeolite or clay}
C11D 3/507	...	{Compounds releasing perfumes by thermal or chemical activation}

Non-surface-active compounds

C11D 7/00 **Compositions of detergents based essentially on non-surface-active compounds****NOTE**

In the absence of an indication to the contrary, in groups [C11D 7/02](#) to [C11D 7/46](#) a compound is classified in the last appropriate place.

- C11D 7/02 . Inorganic compounds
- C11D 7/04 .. Water-soluble compounds
- C11D 7/06 ... Hydroxides
- C11D 7/08 ... Acids
- C11D 7/10 ... Salts
- C11D 7/105 {Nitrates; Nitrites}
- C11D 7/12 Carbonates {bicarbonates}
- C11D 7/14 Silicates
- C11D 7/16 Phosphates including polyphosphates
- C11D 7/20 .. Water-insoluble oxides

- C11D 7/22 . Organic compounds
- C11D 7/24 .. Hydrocarbons
- C11D 7/241 ... {linear}
- C11D 7/242 ... {branched}
- C11D 7/244 ... {unsaturated}
- C11D 7/245 ... {cyclic}
- C11D 7/247 ... {aromatic}
- C11D 7/248 ... {Terpenes}
- C11D 7/26 .. containing oxygen
- C11D 7/261 ... {Alcohols; Phenols}
- C11D 7/262 { fatty or with at least 8 carbon atoms in the alkyl or alkenyl chain}
- C11D 7/263 ... {Ethers}
- C11D 7/264 ... {Aldehydes; Ketones; Acetals; Ketals}
- C11D 7/265 ... {Carboxylic acids; Salts thereof}
- C11D 7/266 ... {Esters; Carbonates}
- C11D 7/267 ... {Heterocyclic compounds}
- C11D 7/268 ... {Carbohydrates; Derivatives thereof}
- C11D 7/28 .. containing halogen
- C11D 7/30 ... Halogenated hydrocarbons
- C11D 7/32 .. containing nitrogen
- C11D 7/3209 ... { Amines or imines with one to four nitrogen atoms; Quaternized amines}
- C11D 7/3218 ... {Alkanolamines; Alkanolimines}
- C11D 7/3227 ... {Ethers thereof}
- C11D 7/3236 ... {Aldehydes, ketones, acetals, ketals thereof}

C11D 7/3245	...	{Aminoacids}
C11D 7/3254	...	{Esters or carbonates thereof }
C11D 7/3263	...	{Amides; Imides}
C11D 7/3272	...	{Urea; Guanidine; Derivatives thereof}
C11D 7/3281	...	{Heterocyclic compounds}
C11D 7/329	...	{Carbohydrate, derivatives thereof}
C11D 7/34	..	containing sulfur
C11D 7/36	..	containing phosphorus
C11D 7/40	..	Products in which the composition is not well defined
C11D 7/44	...	Vegetable products
C11D 7/46	...	Animal products

C11D 7/50	.	Solvents
C11D 7/5004	..	{Organic solvents}

NOTE

In this group, classification is made in the first appropriate place

C11D 7/5009	...	{containing phosphorus, sulfur or silicon, e.g. dimethylsulfoxide}
C11D 7/5013	...	{containing nitrogen}
C11D 7/5018	...	{Halogenated solvents}
C11D 7/5022	...	{containing oxygen}
C11D 7/5027	...	{Hydrocarbons}
C11D 7/5031	..	{Azeotropic mixtures of non-halogenated solvents}
C11D 7/5036	..	{Azeotropic mixtures containing halogenated solvents}
C11D 7/504	...	{all solvents being halogenated hydrocarbons}
C11D 7/5045	....	{Mixtures of (hydro)chlorofluorocarbons}
C11D 7/505	....	{Mixtures of (hydro)fluorocarbons}
C11D 7/5054	....	{Mixtures of (hydro)chlorofluorocarbons and (hydro) fluorocarbons}
C11D 7/5059	....	{Mixtures containing (hydro)chlorocarbons}
C11D 7/5063	....	{Halogenated hydrocarbons containing heteroatoms, e.g. fluoro alcohols}
C11D 7/5068	...	{Mixtures of halogenated and non-halogenated solvents}
C11D 7/5072	....	{Mixtures of only hydrocarbons}
C11D 7/5077	....	{Mixtures of only oxygen-containing solvents}
C11D 7/5081	.....	{the oxygen-containing solvents being alcohols only}
C11D 7/5086	.....	{the oxygen-containing solvents being different from alcohols, e.g. mixtures of water and ethers}
C11D 7/509	....	{Mixtures of hydrocarbons and oxygen-containing solvents}
C11D 7/5095	....	{Mixtures including solvents containing other heteroatoms than oxygen, e.g. nitriles, amides, nitroalkanes, siloxanes, thioethers}

Soap detergents

C11D 9/00 **Compositions of detergents based essentially on soap** (compositions containing resin soap [C11D 15/04](#))

- C11D 9/002 . {Non alkali-metal soaps}
- C11D 9/005 . {Synthetic soaps (see also [C11D 1/04](#))}
- C11D 9/007 . {Soaps or soap mixtures with well defined chain length}
- C11D 9/02 . on alkali or ammonium soaps
- C11D 9/04 . containing compounding ingredients other than soaps
- C11D 9/045 .. {containing substances which prevent the deterioration of soaps, e.g. light or heat stabilisers, antioxidants}

NOTE

In groups 9/06 to 9/42, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

- C11D 9/06 .. Inorganic compounds
- C11D 9/08 ... Water-soluble compounds
- C11D 9/10 Salts
- C11D 9/12 Carbonates
- C11D 9/14 Phosphates; Polyphosphates
- C11D 9/16 Borates
- C11D 9/18 ... Water-insoluble compounds
- C11D 9/20 Fillers, abrasives
- C11D 9/22 .. Organic compounds, {e.g. vitamins}
- C11D 9/225 ... {Polymers}
- C11D 9/24 ... Hydrocarbons {([C11D 9/225](#) takes precedence)}
- C11D 9/26 ... containing oxygen {([C11D 9/225](#) takes precedence)}
- C11D 9/262 {containing carbohydrates}
- C11D 9/265 {containing glycerol}
- C11D 9/267 {containing free fatty acids (see also [C11D 9/48](#))}
- C11D 9/28 ... containing halogen {([C11D 9/225](#) takes precedence)}
- C11D 9/30 ... containing nitrogen {([C11D 9/225](#) takes precedence)}
- C11D 9/32 ... containing sulfur {([C11D 9/225](#) takes precedence)}
- C11D 9/34 ... containing phosphorus {([C11D 9/225](#) takes precedence)}
- C11D 9/36 ... containing silicon {([C11D 9/225](#) takes precedence)}
- C11D 9/38 ... Products in which the composition is not well defined
- C11D 9/40 ... Proteins
- C11D 9/42 .. Per-compounds
- C11D 9/44 .. Perfumes; Colouring materials; Brightening agents {Bleaching agents}
- C11D 9/442 ... {Perfumes}

- C11D 9/444 ... {Dyes; Pigments}
- C11D 9/446 ... {Bleaching agents}
- C11D 9/448 ... {Brightening agents}
- C11D 9/48 .. Superfatting agents

C11D 10/00 Compositions of detergents, not provided for by one single preceding group

- C11D 10/04 . based on mixture of surface-active non-soap compounds and soap
- C11D 10/042 .. {based on anionic surface-active compounds and soap}
- C11D 10/045 .. {based on non-ionic surface-active compounds and soap}
- C11D 10/047 .. {based on cationic surface-active compounds and soap}

C11D 11/00 Special methods for preparing compositions containing mixtures of detergents {(in the form of blocks, bars, tablets [C11D 17/0047](#)); Methods for using cleaning compositions}

- C11D 11/0005 . {Special cleaning and washing methods}
- C11D 11/0011 .. {characterised by the objects to be cleaned}
- C11D 11/0017 ... { "Soft" surfaces, e.g. textiles}
- C11D 11/0023 ... {"Hard" surfaces}
- C11D 11/0029 {Metals (**degreasing metals [C23G 5/00](#)**)}
- C11D 11/0035 {Glass; Plastics}
- C11D 11/0041 {Industrial or commercial equipment, e.g. reactors, tubes, engines (**[C11D 11/0047](#) takes precedence**)}
- C11D 11/0047 {Electronic devices, e.g. PCBs, semiconductors}
- C11D 11/0052 {Mineral surfaces, e.g. stones, frescoes, plaster, walls, concrete}
- C11D 11/0058 .. {involving the application of foam or a temporary coating on the surface to be cleaned}
- C11D 11/0064 .. {Multi-step methods}
- C11D 11/007 .. {involving applying energy, e.g. irradiation}
- C11D 11/0076 .. {Regeneration of cleaning solutions}
- C11D 11/0082 . {one or more of the detergent ingredients being in a liquefied state, e.g. slurry, paste, melt, and the process resulting in solid detergent particles such as granules, powders or beads}
- C11D 11/0088 .. {the liquefied ingredients being sprayed or adsorbed onto solid particles}
- C11D 11/0094 . {Process for making liquid detergent compositions, e.g. slurries, pastes, gels}
- C11D 11/02 . Preparation in the form of powder by spray drying
- C11D 11/04 . by chemical means, e.g. by sulfonating in the presence of other compounding ingredients followed by neutralising

Soap or soap-making; Resin soaps

C11D 13/00 **Making of soap or soap solutions in general; Apparatus therefor (resin soap [C11D 15/00](#))**

- C11D 13/02 . Boiling soap; Refining
- C11D 13/04 . . Continuous methods therefor
- C11D 13/06 . . Bleaching of soap or soap solutions
- C11D 13/08 . Colouring, {e.g. [striated bars](#), [striped bars](#)} or perfuming
- C11D 13/10 . Mixing; Kneading
- C11D 13/12 . Cooling ([C11D 13/14](#) takes precedence)
- C11D 13/14 . Shaping
- C11D 13/16 . . in moulds
- C11D 13/18 . . by extrusion or pressing
- C11D 13/20 . . in the form of small particles, e.g. powder, flakes ([by slicing C11D 13/24](#))
- C11D 13/22 . Cutting
- C11D 13/24 . . Slicing soap on the cooling drum
- C11D 13/26 . Drying ([drying ovens F27](#))
- C11D 13/28 . Embossing; Polishing
- C11D 13/30 . Recovery of soap, e.g. from spent solutions

C11D 15/00 **Manufacture of resin soap or soaps derived from naphthenic acids; Compositions**

- C11D 15/02 . Apparatus therefor
- C11D 15/04 . Compositions containing resin soap or soap derived from naphthenic acids

C11D 17/00 **Detergent materials characterised by their shape or physical properties {(soaps [C11D 9/00](#), [shaping soap C11D 13/00](#))}**

- C11D 17/0004 . {[Non aqueous liquid compositions comprising insoluble particles](#)}
- C11D 17/0008 . {[aqueous liquid non soap compositions \(C11D 3/0015, C11D 3/3947, C11D 3/3956 take precedence\)](#)}

WARNING

This subgroup is not longer used for the classification of new documents from 01 November 2011

- C11D 17/0013 . . {[Liquid compositions with insoluble particles in suspension \(C11D 17/0021, C11D 17/0026, C11D 17/003 take precedence\)](#)}

- C11D 17/0017 .. {Multi-phase liquid compositions}
- C11D 17/0021 ... {Aqueous microemulsions}
- C11D 17/0026 .. {Structured liquid compositions, e.g. liquid crystalline phases, network containing non-Newtonian phase, (thixotropic solutions [C11D 17/003](#))}
- C11D 17/003 .. {Colloidal solutions, e.g. gels; Thixotropic solutions; Pastes}
- C11D 17/0034 . {Fixed on a solid conventional detergent ingredient}
- C11D 17/0039 . {Coated compositions or coated components in the compositions, (micro)capsules}
- C11D 17/0043 . {For use with aerosol devices}
- C11D 17/0047 . { Detergents in the form of bars or tablets}
- C11D 17/0052 .. {Cast detergent compositions}
- C11D 17/0056 .. {Lavatory cleansing blocks}
- C11D 17/006 .. {containing mainly surfactants, but no builders, e.g. syndet bar}
- C11D 17/0065 .. {Solid detergents containing builders ([C11D 17/06](#) takes precedence)}
- C11D 17/0069 ... {Laundry bars}
- C11D 17/0073 ... {Tablets}
- C11D 17/0078 {Multilayered tablets}
- C11D 17/0082 {Coated tablets}
- C11D 17/0086 {Laundry tablets}
- C11D 17/0091 {Dishwashing tablets}
- C11D 17/0095 . {Solid transparent soaps or detergents}
- C11D 17/02 . Floating bodies of detergents {or of soaps}
- C11D 17/04 . combined with or containing other objects
- C11D 17/041 .. {Compositions releasably affixed on a substrate or incorporated into a dispensing means}
- C11D 17/042 ... { Water soluble or water disintegrable containers or substrates containing cleaning compositions or additives for cleaning compositions (packaging of disintegrable, dissolvable or edible materials [B65D 65/46](#))}
- C11D 17/043 {Liquid or thixotropic (gel) compositions}
- C11D 17/044 {Solid compositions}
- C11D 17/045 { Multi-compartment}
- C11D 17/046 ... { Insoluble free body dispenser}
- C11D 17/047 ... { Arrangements specially adapted for dry cleaning or laundry dryer related applications}
- C11D 17/048 .. {Soap or detergent bars or cakes with an inner core consisting of insoluble material (floating soaps [C11D 17/02](#))}
- C11D 17/049 .. { Cleaning or scouring pads; Wipes}
- C11D 17/06 . Powder; Flakes; Free-flowing mixtures; Sheets
- C11D 17/065 .. {High-density particulate detergent compositions}

C11D 17/08 . Liquid soap, {e.g. for dispensers}; Capsuled

C11D 19/00 **Recovery of glycerol from a saponification liquor** (refining glycerol [C07C 31/22](#))

C11D 2003/00 **Other compounding ingredients of detergent compositions covered in group [C11D 1/00](#)**

NOTE

Documents classified in group [C11D 3/0005](#) are also classified in other groups of subclass [C11D](#) according to the chemical nature of the compounds as such

C11D 2003/16 . Organic compounds

C11D 2003/26 .. containing nitrogen {([C11D 3/162](#), [C11D 3/164](#), [C11D 3/166](#), [C11D 3/168](#) take precedence)}

C11D 2003/32 ... Amides; Substituted amides

C11D 2003/326 { granulated, coated or protected}