

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

**DETERGENT COMPOSITIONS** (preparations specially adapted for washing the hair [A61Q 5/02](#), [A61K 8/00](#); methods or apparatus for disinfection or sterilisation [A61L](#); special washing compositions for cleaning semi-permeable membranes [B01D 65/06](#)); **USE OF SINGLE SUBSTANCES AS DETERGENTS; SOAP OR SOAP-MAKING; RESIN SOAPS; RECOVERY OF GLYCEROL**

**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 10/047](#), 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:

<a href="#">C11D 1/68</a>	covered by	<a href="#">C11D 3/2003</a>
<a href="#">C11D 1/70</a>	covered by	<a href="#">C11D 3/2003</a>
<a href="#">C11D 3/44</a>	covered by	<a href="#">C11D 3/43</a>
<a href="#">C11D 3/46</a>	covered by	<a href="#">C11D 3/2079</a> , <a href="#">C11D 9/48</a>
<a href="#">C11D 3/60</a>	covered by	<a href="#">C11D 3/00</a>
<a href="#">C11D 7/18</a>	covered by	<a href="#">C11D 3/39</a>
<a href="#">C11D 7/38</a>	covered by	<a href="#">C11D 3/39</a>
<a href="#">C11D 7/42</a>	covered by	<a href="#">C11D 3/386</a>
<a href="#">C11D 7/52</a>	covered by	<a href="#">C11D 7/50</a>
<a href="#">C11D 7/54</a>	covered by	<a href="#">C11D 3/395</a>
<a href="#">C11D 7/56</a>	covered by	<a href="#">C11D 3/395</a>
<a href="#">C11D 7/60</a>	covered by	<a href="#">C11D 7/00</a>
<a href="#">C11D 9/20</a>	covered by	partly covered by <a href="#">C11D 9/444</a>
<a href="#">C11D 9/50</a>	covered by	<a href="#">C11D 3/48</a>
<a href="#">C11D 9/60</a>	covered by	<a href="#">C11D 9/00</a>
<a href="#">C11D 10/02</a>	covered by	<a href="#">C11D 3/00</a>
<a href="#">C11D 10/06</a>	covered by	<a href="#">C11D 9/00</a>

**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 ( $\text{SO}_3$  and  $\text{SO}_4$ , [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 ... {Acyliethionates}
- 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 <a href="#">A61L 2/00</a> ; mechanical cleaning <a href="#">G02C 13/00</a> )}

**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. $\text{Al}_2\text{O}_3$ , $\text{TiO}_2$ , $\text{CaO}$ , $\text{Ca}(\text{OH})_2$ }
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 $\text{NaMeSixO}_{2x+1}\text{YH}_2\text{O}$ }
C11D 3/128	.....	{Aluminium silicates, e.g. zeolites ( <a href="#">C11D 3/1253</a> 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 <a href="#">C11D 3/12</a> ; Specific features concerning abrasives, e.g. granulometry, mixtures ( <a href="#">dyes, pigments C11D 3/40</a> )}
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 organometallic complexes}
C11D 3/18	..	Hydrocarbons {( <a href="#">C11D 3/164</a> 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 {( <a href="#">C11D 3/162</a> , <a href="#">C11D 3/164</a> , <a href="#">C11D 3/166</a> , <a href="#">C11D 3/168</a> take precedence)}
C11D 3/2003	...	{Alcohols; Phenols}

**NOTE**

1. 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
2. In case of mixtures of alcohols or of a list of alternatives, documents are classified in [C11D 3/2003](#), [C11D 3/2006](#) or [C11D 3/2041](#) and indexed for the individual alternatives using codes chosen 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 ( <a href="#">soaps C11D 10/00 to C11D 10/04</a> )}
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 <a href="#">C11D 3/3788</a> )}
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 {( <a href="#">C11D 3/162</a> , <a href="#">C11D 3/164</a> , <a href="#">C11D 3/166</a> , <a href="#">C11D 3/168</a> take precedence)}
C11D 3/245	...	{containing fluorine}
C11D 3/26	..	containing nitrogen {( <a href="#">C11D 3/162</a> , <a href="#">C11D 3/164</a> , <a href="#">C11D 3/166</a> , <a href="#">C11D 3/168</a> 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**

1. In this group in the absence of an indication to the contrary sulfur containing compounds are classified in the last appropriate place (see Note before group [C11D 3/00](#)) and indexed for the individual functional groups using codes chosen from [C11D 3/3409](#) to [C11D 3/349](#)
2. In case of mixtures or a list of alternatives or Markush formulae each individual compound is classified and indexed according to Note 1.

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, sulfolanes}
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 <a href="#">C11D 1/008</a> ; carbohydrates <a href="#">C11D 3/22</a> )}
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	.....	{Alkoxylated 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 <a href="#">C11D 3/386</a> , <a href="#">C12N</a> )}
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**

1. In the absence of an indication to the contrary activators or catalysts are classified in the last appropriate place
2. In case of mixtures or a list of alternatives documents are classified in [C11D 3/3905](#) or [C11D 3/3907](#) only and indexed for the individual alternatives using codes chosen 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 ( <a href="#">see also C11D 1/04</a> )}
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 [C11D 9/06](#) to [C11D 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 {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/26	...	containing oxygen {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/262	....	{containing carbohydrates}
C11D 9/265	....	{containing glycerol}
C11D 9/267	....	{containing free fatty acids ( <a href="#">see also C11D 9/48</a> )}
C11D 9/28	...	containing halogen {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/30	...	containing nitrogen {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/32	...	containing sulfur {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/34	...	containing phosphorus {( <a href="#">C11D 9/225</a> takes precedence)}
C11D 9/36	...	containing silicon {( <a href="#">C11D 9/225</a> 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	..	Superfating 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 <a href="#">C23G 5/00</a> )}
C11D 11/0035	....	{Glass; Plastics}
C11D 11/0041	....	{Industrial or commercial equipment, e.g. reactors, tubes, engines ( <a href="#">C11D 11/0047</a> 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](#))**