

**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**

C11D 1/72  
(continued)

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 ([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 organometallic 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}

#### **NOTES**

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 {( <a href="#">graft polymers 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 {(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)}

### NOTES

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 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 <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}

#### **NOTES**

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 (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 [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 {([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](#))**