

ECLA**EUROPEAN CLASSIFICATION****C08K**

USE OF INORGANIC OR NON-MACROMOLECULAR ORGANIC SUBSTANCES AS COMPOUNDING INGREDIENTS (pesticides, herbicides A01N; pharmaceuticals, cosmetics A61K; explosives C06B; paints, inks, varnishes, dyes, polishes, adhesives C09; lubricants C10M; detergents C11D; artificial filaments or fibres D01F; textile treating compositions D06) [C9410]

[N: WARNING]

The following IPC group is not used in the internal ECLA classification system. Subject matter covered by this group is classified in the following ECLA groups:

[C08K4/5445](#) covered by [C08K5/544](#)
]

Notes

1. The use of an ingredient for a specific polymer is classified by adding, in a C-set, to the group symbol of C08K, the subdivision of [C08L1/00](#) to [C08L99/00](#). Example: Polystyrene containing a carboxylic amide is classified in ([C08K5/20](#), [C08L25/06](#)). 2. From April 2012, the use of an ingredient for a specific polymer is classified by adding, in a C-set, to the group symbol of C08K, the subdivision of [C08L1/00](#) to [C08L99/00](#). Example: Polystyrene containing a carboxylic amide is classified in ([C08K5/20](#), [C08L25/06](#)). 3. In this subclass, in the absence of an indication to the contrary, an ingredient is classified in the last appropriate place.
2. In this subclass:
 - a mixture of ingredients is classified in the most indented group covering all the essential ingredients of the mixture, e.g.:
 - a mixture of a monohydric and a polyhydric alcohol [C08K5/05](#)
 - a mixture of two polyhydric alcohols [C08K5/053](#)
 - a mixture of an alcohol and an ether [C08K5/04](#)
 - a mixture of an ether and an amine [C08K5/00](#)
 - a mixture of an amine and a metal [C08K13/02](#)
 - [N: This note is applied only for mixtures with more than three essential ingredients. Mixtures with two or three ingredients are classified in the appropriate groups of C08K, e.g. a mixture of Al₂O₃, an ether and an amine is classified in [C08K3/22](#), [C08K5/06](#) and [C08K5/17](#)]
 - ammonium salts are classified in the same way as metal salts
3. In this subclass, organic acid salts, alcoholates, phenolates or mercaptides are classified in the groups or subgroups of the parent compounds

[N: Notes]

1. The use of an ingredient for a specific polymer is classified by adding to the group symbol of C08K and separated therefrom by a "+" sign, the subdivision of [C08L1/00](#) to [C08L99/00](#).

Example: Polystyrene containing a carboxylic amide is classified in [C08K5/20+L25/06](#)

2. In this subclass are considered as compounding ingredients:

- a. inert additives
- b. radical crosslinking agents, e.g. peroxides, S-containing vulcanisation agents
- c. coupling agents, i.e. compounds able to improve the adhesion between filler and macromolecule

Are not considered as compounding ingredients:

- a. chemical modifying or crosslinking agents which react via a condensation or addition mechanism (for C08B polymers C08B, for diene rubbers [C08C19/30](#), for other vinyl polymers C08F8/-, for polysiloxanes [C08L83/00](#), for other C08G polymers C08G)
- b. solvents or dispersion agents for making polymer solutions, emulsions or dispersions ([C08J3/02](#))
- c. blowing agents ([C08J9/04](#))

]

C08K3/00

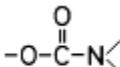
Use of inorganic ingredients

- C08K3/00P . [N: Inorganic ingredients according to more than one of the "one dot" groups of [C08K3/02](#) to [C08K3/40](#)]
- C08K3/00P2 . . [N: Crosslinking or vulcanising agents, including accelerators]
- C08K3/00P3 . . [N: Additives activating the degradation of the macromolecular compound]
- C08K3/00P5 . . [N: Fillers, pigments, reinforcing additives]
- C08K3/00P6 . . [N: Stabilisers against oxidation, heat, light, ozone]
- C08K3/00P7 . . [N: Biocides; (macromolecular substances as carriers for biocide material [A01N25/10](#))]
- C08K3/00P8 . . [N: Flame-proofing or flame-retarding additives]
- C08K3/00P9 . . [N: Antistatics]
- C08K3/00S . [N: Metal containing compounds according to more than one of the "one dot" groups of [C08K3/10](#) to [C08K3/40](#)]
- C08K3/00S2 . . [N: Compounds containing metals of the 1st to 3rd Group of the Periodic system]
- C08K3/00S4 . . [N: Compounds containing metals of the 4th to 8th Group of the Periodic system, e.g. nickel compounds]
- C08K3/02 . Elements
- C08K3/04 . . Carbon
- C08K3/06 . . Sulfur
- C08K3/08 . . Metals
- C08K3/10 . Metal compounds
- C08K3/12 . . Hydrides

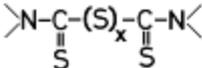
- C08K3/14 . . Carbides
- C08K3/16 . Halogen-containing compounds
- C08K3/18 . Oxygen-containing compounds, e.g. metal carbonyls
- C08K3/20 . . Oxides; Hydroxides
- C08K3/22 . . . of metals
- C08K3/22S [N: of antimony]
- C08K3/24 . . Acids; Salts thereof [N: (C08K3/16 takes precedence)]
- C08K3/26 . . . Carbonates; Bicarbonates
- C08K3/28 . Nitrogen-containing compounds
- C08K3/30 . Sulfur-, selenium- or tellurium-containing compounds
- C08K3/32 . Phosphorus-containing compounds
- C08K3/34 . Silicon-containing compounds
- C08K3/34B . . [N: Clay]
- C08K3/36 . . Silica
- C08K3/38 . Boron-containing compounds
- C08K3/40 . Glass
- C08K5/00 Use of organic ingredients**
- C08K5/00P . [N: Organic ingredients according to more than one of the "one dot" groups of [C08K5/01](#) to [C08K5/59](#)]
- C08K5/00P1 . . [N: Plasticisers]
- C08K5/00P2 . . [N: Crosslinking or vulcanising agents; including accelerators]
- C08K5/00P3 . . [N: Additives activating the degradation of the macromolecular compound]
- C08K5/00P4 . . [N: Optical brightening agents, organic pigments]
- C08K5/00P6 . . [N: Stabilisers against oxidation, heat, light, ozone]
- C08K5/00P7 . . [N: Biocides; (macromolecular substances as carriers for biocide material [A01N25/10](#))]
- C08K5/00P8 . . [N: Flame-proofing or flame-retarding additives]
- C08K5/00P9 . . [N: Antistatics]
- C08K5/00P10 . . [N: Nucleating agents promoting the crystallisation of the polymer matrix] [N0009]
- C08K5/00S . [N: Complexes with metal-heteroatom-bonds]
- C08K5/01 . Hydrocarbons [N: (C08K5/00S takes precedence)] [C9505]
- C08K5/02 . Halogenated hydrocarbons [N: (C08K5/00S takes precedence)] [C9505]
- C08K5/03 . . aromatic, [N: e.g. C6H5-CH2-C1]
- C08K5/04 . Oxygen-containing compounds [N: (C08K5/00S takes precedence)]

- C08K5/05 . . Alcohols; Metal alcoholates
- C08K5/053 . . . Polyhydroxylic alcohols
- C08K5/057 . . . Metal alcoholates [N: (metal enolates [C08K5/00S](#))]
- C08K5/06 . . Ethers; Acetals; Ketals; Ortho-esters
- C08K5/07 . . Aldehydes; Ketones
- C08K5/08 . . . Quinones
- C08K5/09 . . Carboxylic acids; Metal salts thereof; Anhydrides thereof
- C08K5/092 . . . Polycarboxylic acids [N9505]
- C08K5/095 . . . Carboxylic acids containing halogens [N9505]
- C08K5/098 . . . Metal salts of carboxylic acids [N9505]
- C08K5/10 . . Esters; Ether-esters
- C08K5/101 . . . of monocarboxylic acids [N9505]
- C08K5/103 with polyalcohols [N9505]
- C08K5/105 with phenols [N9505]
- C08K5/107 with polyphenols [N9505]
- C08K5/109 . . . of carbonic acid, [N: e.g. R-O-C(=O)-O-R] [N9505]
- C08K5/11 . . . of acyclic polycarboxylic acids
- C08K5/12 . . . of cyclic polycarboxylic acids
- C08K5/13 . . Phenols; Phenolates
- C08K5/132 . . . Phenols containing keto groups, [N: e.g. benzophenones] [N9505]
- C08K5/134 . . . Phenols containing ester groups [N9505]
- C08K5/134B [N: Carboxylic esters of phenolcarboxylic acids] [N9505]
- C08K5/136 . . . Phenols containing halogens [N9505]
- C08K5/138 . . . Phenolates [N9505]
- C08K5/14 . . Peroxides
- C08K5/15 . . Heterocyclic compounds having oxygen in the ring
- C08K5/151 . . . having one oxygen atom in the ring [N0110]
- C08K5/1515 Three-membered rings [N0110]
- C08K5/1525 Four-membered rings [N0110]
- C08K5/1535 Five-membered rings [N0110]
- C08K5/1539 Cyclic anhydrides [N0110]
- C08K5/1545 Six-membered rings [N0110]
- C08K5/156 . . . having two oxygen atoms in the ring [N0110]
- C08K5/1565 Five-membered rings [N0110]
- C08K5/1575 Six-membered rings [N0110]
- C08K5/159 . . . having more than two oxygen atoms in the ring [N0110]

- C08K5/16 . . Nitrogen-containing compounds [N: ([C08K5/00S](#) takes precedence)]
- C08K5/17 . . Amines; Quaternary ammonium compounds
- C08K5/17B . . . [N: containing COOH-groups; Esters or salts thereof] [N9409]
- C08K5/18 . . . with aromatically bound amino groups
- C08K5/19 . . . Quaternary ammonium compounds

- C08K5/20 . . . Carboxylic acid amides
- C08K5/205 . . . Compounds containing  groups, e.g. carbamates [N9505]
- C08K5/21 . . . Urea; Derivatives thereof, e.g. biuret
- C08K5/22 . . . Compounds containing nitrogen bound to another nitrogen atom
- C08K5/23 Azo-compounds
- C08K5/23B [N: Diazo and polyazo compounds]
- C08K5/24 Derivatives of hydrazine
- C08K5/25 Carboxylic acid hydrazides
- C08K5/26 Semicarbazides
- C08K5/27 Compounds containing a nitrogen atom bound to two other nitrogen atoms, e.g. diazoamino-compounds
- C08K5/28 Azides
- C08K5/29 . . . Compounds containing [N: one or more] carbon-to-nitrogen double bonds
- C08K5/30 Hydrazones; Semicarbazones
- C08K5/31 Guanidine; Derivatives thereof
- C08K5/315 . . . Compounds containing carbon-to-nitrogen triple bonds [N9505]
- C08K5/315B [N: Dicyandiamide] [N9505]
- C08K5/32 . . . Compounds containing nitrogen bound to oxygen
- C08K5/33 Oximes
- C08K5/34 . . . Heterocyclic compounds having nitrogen in the ring
- C08K5/3412 having one nitrogen atom in the ring
- C08K5/3415 Five-membered rings
- C08K5/3417 condensed with carbocyclic rings
- C08K5/3432 Six-membered rings
- C08K5/3435 Piperidines
- C08K5/3437 condensed with carbocyclic rings
- C08K5/3442 having two nitrogen atoms in the ring
- C08K5/3445 Five-membered rings
- C08K5/3447 condensed with carbocyclic rings
- C08K5/3462 Six-membered rings
- C08K5/3465 condensed with carbocyclic rings
- C08K5/3467 having more than two nitrogen atoms in the ring
- C08K5/3472 Five-membered rings
- C08K5/3475 condensed with carbocyclic rings
- C08K5/3477 Six-membered rings
- C08K5/3492 Triazines
- C08K5/3492B [N: Melamine; Derivatives thereof] [N9409]
- C08K5/3492D [N: containing cyanurate groups; Tautomers thereof] [N9409]
- C08K5/3492F [N: also containing heterocyclic groups other than triazine groups] [N9409]
- C08K5/3492S [N: Salts] [N9409]

- C08K5/3495 condensed with carbocyclic rings
- C08K5/35 having also oxygen in the ring
- C08K5/353 Five-membered rings
- C08K5/357 Six-membered rings

- C08K5/36 Sulfur-, selenium-, or tellurium-containing compounds [N: (C08K5/00S takes precedence)]
- C08K5/37 Thiols [C0110]
- C08K5/372 Sulfides, [N: e.g. R-(S)_x-R'] [N9505] [C0110]
- C08K5/372B [N: containing nitrogen] [N9505]
- C08K5/375 containing six-membered aromatic rings [N: (C08K5/372B takes precedence)] [N9505]
- C08K5/378 containing heterocyclic rings [N9505]
- C08K5/38 Thiocarbonic acids; Derivatives thereof, e.g. xanthates; [N: i.e. compounds containing -X-C(=X)- groups, X being oxygen or sulfur, at least one X being sulfur]
- C08K5/39 Thiocarbamic acids; Derivatives thereof, e.g. dithiocarbamates
- C08K5/40 Thiurams, [N: i.e. compounds containing  groups]

- C08K5/405 Thioureas; Derivatives thereof [N9505]
- C08K5/41 Compounds containing sulfur bound to oxygen
- C08K5/42 Sulfonic acids; Derivatives thereof
- C08K5/43 Compounds containing sulfur bound to nitrogen
- C08K5/435 Sulfonamides [N9505]
- C08K5/44 Sulfenamides
- C08K5/45 Heterocyclic compounds having sulfur in the ring
- C08K5/46 with oxygen or nitrogen in the ring
- C08K5/47 Thiazoles
- C08K5/48 Selenium- or tellurium-containing compounds

- C08K5/49 Phosphorus-containing compounds [N: (C08K5/00S takes precedence)]
- C08K5/50 Phosphorus bound to carbon only
- C08K5/51 Phosphorus bound to oxygen
- C08K5/52 Phosphorus bound to oxygen only
- C08K5/52S [N: Salts of P-acids with N-bases] [N9409]
- C08K5/521 Esters of phosphoric acids, e.g. of H3PO4
- C08K5/523 with hydroxyaryl compounds
- C08K5/524 Esters of phosphorous acids, e.g. of H3PO3
- C08K5/526 with hydroxyaryl compounds
- C08K5/527 Cyclic esters
- C08K5/529 Esters containing heterocyclic rings not representing cyclic esters of phosphoric or phosphorous acids
- C08K5/53 bound to oxygen and to carbon only
- C08K5/5313 Phosphinic compounds, e.g. R₂=P(:O)OR'

- C08K5/5317 Phosphonic compounds, e.g. R-P(:O)(OR')₂
- C08K5/5333 Esters of phosphonic acids
- C08K5/5337 containing also halogens
- C08K5/5353 containing also nitrogen
- C08K5/5357 cyclic
- C08K5/5373 containing heterocyclic rings not representing cyclic esters of phosphonic acids
- C08K5/5377 Phosphinous compounds, e.g. R₂=P-OR'
- C08K5/5393 Phosphonous compounds, e.g. R-P(OR')₂
- C08K5/5397 Phosphine oxides
- C08K5/5398 . . Phosphorus bound to sulfur
- C08K5/5399 . . Phosphorus bound to nitrogen
- C08K5/54 . Silicon-containing compounds [N: (C08K5/00S takes precedence)] [C9505]
- C08K5/54B . . [N: containing no other elements than carbon or hydrogen]
- C08K5/54H . . [N: containing elements other than oxygen or nitrogen]
- C08K5/541 . . containing oxygen [N0002]
- C08K5/5415 . . . containing at least one Si-O bond [N0002]
- C08K5/5419 . . . containing at least one Si-C bond [N0002]
- C08K5/5425 . . . containing at least one C=C bond [N0002]
- C08K5/5435 . . . containing oxygen in a ring [N0002]
- C08K5/544 . . containing nitrogen [N0002]
- C08K5/544B . . . [N: containing nitrogen in a heterocyclic ring] [N0002]
- C08K5/5455 . . . containing at least one  group [N: (C08K5/544B takes precedence)] [N0002]
- C08K5/5465 . . . containing at least one C=N bond [N: (C08K5/544B takes precedence)] [N0002]
- C08K5/5475 . . . containing at least one C-N [N: triple] bond [N: (C08K5/544B takes precedence)] [N0002]
- C08K5/548 . . containing sulfur [N: (C08K5/544B takes precedence)] [N0002]
- C08K5/549 . . containing silicon in a ring [N0002]
- C08K5/55 . Boron-containing compounds [N: (C08K5/00S takes precedence)] [C9505]
- C08K5/56 . Organo-metallic compounds, i.e. organic compounds containing a metal-to-carbon bond
- C08K5/57 . . Organo-tin compounds
- C08K5/58 . . . containing sulfur
- C08K5/59 . Arsenic- or antimony-containing compounds
- C08K7/00 Use of ingredients characterised by shape**

- C08K7/02 . Fibres or whiskers
- C08K7/04 . . Inorganic
- C08K7/06 . . . Elements
- C08K7/08 . . . Oxygen-containing compounds
- C08K7/10 . . . Silicon-containing compounds
- C08K7/12 Asbestos
- C08K7/14 . . . Glass

- C08K7/16 . Solid spheres
- C08K7/18 . . Inorganic
- C08K7/20 . . . Glass

- C08K7/22 . Expanded, porous or hollow particles
- C08K7/24 . . Inorganic
- C08K7/26 . . . Silicon- containing compounds
- C08K7/28 . . . Glass

C08K9/00 Use of pretreated ingredients

- C08K9/02 . Ingredients treated with inorganic substances
- C08K9/04 . Ingredients treated with organic substances [N: treated with macromolecular compounds [C08K9/08](#)]
- C08K9/06 . . with silicon-containing compounds
- C08K9/08 . Ingredients agglomerated by treatment with a binding agent
- C08K9/10 . Encapsulated ingredients
- C08K9/12 . Adsorbed ingredients [N: e.g. ingredients on carriers]

C08K11/00 Use of ingredients of unknown constitution, e.g. undefined reaction products

- C08K11/00B . [N: Waste materials, e.g. treated or untreated sewage sludge]

C08K13/00 Use of mixtures of ingredients not covered by one single of the preceding main groups, each of these compounds being essential

- C08K13/02 . Organic and inorganic ingredients
- C08K13/04 . Ingredients characterised by their shape and organic or inorganic ingredients
- C08K13/06 . Pretreated ingredients and ingredients covered by the main groups [C08K3/00](#) to [C08K7/00](#)
- C08K13/08 . Ingredients of unknown constitution and ingredients covered by the main groups [C08K3/00](#) to [C08K9/00](#)