

CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY

(NOTES omitted)

CHEMISTRY

C06 EXPLOSIVES; MATCHES

C06B EXPLOSIVES OR THERMIC COMPOSITIONS (blasting [F42D](#)); MANUFACTURE THEREOF; USE OF SINGLE SUBSTANCES AS EXPLOSIVES (compounds in general [C01](#), [C07](#) or [C08](#); {demolition agents based on cementitious or like materials [C04B 41/0009](#)})

NOTES

- This subclass covers:
 - compositions which are:
 - explosive: compositions included are those containing both a fuel and sufficient oxidiser so that, upon initiation, they are capable of undergoing a chemical change of a relatively high rate of speed, resulting in the production of usable force for blasting, firearms, propelling missiles, or the like;
 - thermic: compositions included have
 - a consumable fuel component which consists of any element which is a metal, B, Si, Se or Te, or mixtures, intercompounds, or hydrides thereof; and
 - in combination an oxidant component which is either a metal oxide or a salt (organic or inorganic) capable of yielding a metal oxide on decomposition;
 - fuels for rocket engines and intended for reaction with an oxidant, excluding air, in order to provide thrust for motive power purposes;
 - for use in affecting the explosion environment, e.g. for neutralising the poisonous gases of explosives, for cooling the explosion gases, or the like;
 - methods or apparatus for preparing or treating such compositions not otherwise provided for;
 - methods of using single substances as explosives.
- In this subclass, the following term is used with the meaning indicated:
 - "nitrated" covers compounds having a nitro group or a nitrate ester group.
- Methods or apparatus for preparing or treating such compositions are classified according to the particular components of the compositions.
- In this subclass, the words "based on", with reference to explosive compositions, refer to the explosive ingredient present in the largest proportion by weight
- In the absence of an indication to the contrary a composition is classified in the last place that provides for an ingredient

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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| 21/00 | Apparatus or methods for working-up explosives, e.g. forming, cutting, drying | 21/005 | . . {By a process involving melting at least part of the ingredients} |
| | | 21/0058 | . . {by casting a curable composition, e.g. of the plastisol type} |
| | | 21/0066 | . . {by granulation, e.g. flaking} |
| | | 21/0075 | . . {by extrusion} |
| | | 21/0083 | . {Treatment of solid structures, e.g. for coating or impregnating with a modifier (compositions therefor C06B 23/00)} |
| | | 21/0091 | . {Elimination of undesirable or temporary components of an intermediate or finished product, e.g. making porous or low density products, purifying, stabilising, drying; Deactivating; Reclaiming; (porous inert particles or chemicals compounded for these purposes C06B 23/00)} |
| 21/0008 | . {Compounding the ingredient} | | |
| 21/0016 | . . {the ingredient being nitrocellulose or oranitro cellulose based propellant; Working up; gelatinising; stabilising (stabilising of explosives in general C06B 21/0091)} | | |
| 21/0025 | . . {the ingredient being a polymer bonded explosive or thermic component} | | |
| 21/0033 | . {Shaping the mixture} | | |
| 21/0041 | . . {by compression} | | |

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| 23/00 | Compositions characterised by non-explosive or non-thermic constituents {(in combination with specific explosives C06B 25/20, C06B 25/26, C06B 29/04, C06B 29/08, C06B 31/06, C06B 31/40, C06B 33/02)} | 27/00 | Compositions containing a metal, boron, silicon, selenium or tellurium or mixtures, intercompounds or hydrides thereof, and hydrocarbons or halogenated hydrocarbons |
| 23/001 | • {Fillers, gelling and thickening agents (e.g. fibres) , absorbents for nitroglycerine (binders, plasticisers for propellants C06B 45/10 ; crosslinking or curing agents C06B 45/10)} | 29/00 | Compositions containing an inorganic oxygen-halogen salt, e.g. chlorate, perchlorate |
| 23/002 | • {Sensitisers or density reducing agents, foam stabilisers, crystal habit modifiers} | 29/02 | • of an alkali metal |
| 23/003 | • • {Porous or hollow inert particles (preparation C06B 21/0091)} | 29/04 | • • with an inorganic non-explosive or an inorganic non-thermic component |
| 23/004 | • • {Chemical sensitisers} | 29/06 | • • • the component being a cyanide; the component being an oxide of iron, chromium or manganese |
| 23/005 | • {Desensitisers, phlegmatisers (coolants for mining explosives C06B 23/04 ; deactivating C06B 21/0091)} | 29/08 | • • with an organic non-explosive or an organic non-thermic component |
| 23/006 | • {Stabilisers (e.g. thermal stabilisers) (processes C06B 21/0091 ; foam stabilisers C06B 23/002)} | 29/10 | • • • the component being a dye or a colouring agent |
| 23/007 | • {Ballistic modifiers, burning rate catalysts, burning rate depressing agents, e.g. for gas generating} | 29/12 | • • with carbon or sulfur |
| 23/008 | • {Tagging additives} | 29/14 | • • with iodine or an iodide |
| 23/009 | • {Wetting agents, hydrophobing agents, dehydrating agents, antistatic additives, viscosity improvers, antiagglomerating agents, grinding agents and other additives for working up} | 29/16 | • • with a nitrated organic compound |
| 23/02 | • for neutralising poisonous gases from explosives produced during blasting | 29/18 | • • • the compound being nitrated toluene or a nitrated phenol |
| 23/04 | • for cooling the explosion gases {including antifouling and flash suppressing agents} | 29/20 | • • • the compound being nitrocellulose |
| | | 29/22 | • the salt being ammonium perchlorate |
| 25/00 | Compositions containing a nitrated organic compound | 31/00 | Compositions containing an inorganic nitrogen-oxygen salt |
| 25/02 | • the nitrated compound being starch or sugar | 31/02 | • the salt being an alkali metal or an alkaline earth metal nitrate |
| 25/04 | • the nitrated compound being an aromatic | 31/04 | • • with carbon or sulfur |
| 25/06 | • • with two or more nitrated aromatic compounds present | 31/06 | • • • with an organic non-explosive or an organic non-thermic component |
| 25/08 | • • • at least one of which is nitrated toluene | 31/08 | • • with a metal oxygen-halogen salt, e.g. inorganic chlorate, inorganic perchlorate |
| 25/10 | • the compound being nitroglycerine | 31/10 | • • • with carbon or sulfur |
| 25/12 | • • with other nitrated organic compounds | 31/12 | • • with a nitrated organic compound |
| 25/14 | • • • the other compound being a nitrated aliphatic diol | 31/14 | • • • the compound being an aromatic |
| 25/16 | • • • the other compound being a nitrated aromatic | 31/16 | • • • • the compound being a nitrated toluene |
| 25/18 | • the compound being nitrocellulose present as 10% or more by weight of the total composition | 31/18 | • • • • the compound being a nitrated phenol, e.g. picric acid |
| 25/20 | • • with a non-explosive or a non-explosive or a non-thermic component | 31/20 | • • • the compound being nitroglycerine |
| 25/22 | • • with a nitrated aromatic compound | 31/22 | • • • the compound being nitrocellulose |
| 25/24 | • • with nitroglycerine | 31/24 | • • • • with other explosive or thermic component |
| 25/26 | • • • with an organic non-explosive or an organic non-thermic component | 31/26 | • • • • • the other component being nitroglycerine |
| 25/28 | • the compound being nitrocellulose present as less than 10% by weight of the total composition | 31/28 | • the salt being ammonium nitrate |
| 25/30 | • • with nitroglycerine | 31/285 | • • {with fuel oil, e.g. ANFO-compositions} |
| 25/32 | • the compound being nitrated pentaerythritol | 31/30 | • • with vegetable matter; with resin; with rubber |
| 25/34 | • the compound being a nitrated acyclic, alicyclic or heterocyclic amine | 31/32 | • • with a nitrated organic compound |
| 25/36 | • the compound being a nitroparaffin | 31/34 | • • • the nitrated compound being starch or sugar |
| 25/38 | • • with other nitrated organic compound | 31/36 | • • • • with other explosive or thermic component |
| 25/40 | • • with two or more nitroparaffins present | 31/38 | • • • the nitrated compound being an aromatic |
| | | 31/40 | • • • • with an organic non-explosive or an organic non-thermic component |
| | | 31/42 | • • • • with other explosive or thermic component |
| | | 31/44 | • • • the compound being nitroglycerine |
| | | 31/46 | • • • • with a vegetable matter component, e.g. wood pulp, sawdust |
| | | 31/48 | • • • • with other explosive or thermic component |
| | | 31/50 | • • • • • the other component being a nitrated organic compound |
| | | 31/52 | • • • the compound being nitrocellulose present as 10% or more by weight of the total composition |
| | | 31/54 | • • • • with other nitrated organic compound |

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| 31/56 | . . . the compound being nitrocellulose present as less than 10% by weight of the total composition | 45/14 | . . a layer or zone containing an inorganic explosive or an inorganic explosive or an inorganic thermic component |
| 33/00 | Compositions containing particulate metal, alloy, boron, silicon, selenium or tellurium with at least one oxygen supplying material which is either a metal oxide or a salt, organic or inorganic, capable of yielding a metal oxide | 45/16 | . . . the layer or zone containing at least one inorganic component from the group of azide, fulminate, phosphorus and phosphide |
| 33/02 | . with an organic non-explosive or an organic non-thermic component | 45/18 | . comprising a coated component (particles dispersed in a matrix C06B 45/04; coated explosive charges F42B) |
| 33/04 | . the material being an inorganic nitrogen-oxygen salt | 45/20 | . . the component base containing an organic explosive or an organic thermic component |
| 33/06 | . the material being an inorganic oxygen-halogen salt | 45/22 | . . . the coating containing an organic compound |
| 33/08 | . with a nitrated organic compound | 45/24 | the compound being an organic explosive or an organic thermic component |
| 33/10 | . . the compound being an aromatic | 45/26 | the compound being a nitrated toluene |
| 33/12 | . the material being two or more oxygen-yielding compounds | 45/28 | . . . the component base containing nitrocellulose and nitroglycerine |
| 33/14 | . . at least one being an inorganic nitrogen-oxygen salt | 45/30 | . . the component base containing an inorganic explosive or an inorganic thermic component |
| 35/00 | Compositions containing a metal azide | 45/32 | . . . the coating containing an organic compound |
| 37/00 | Compositions containing a metal fulminate | 45/34 | the compound being an organic explosive or an organic thermic component |
| 37/02 | . with a nitrated organic compound or an inorganic oxygen-halogen salt | 45/36 | . . the component base containing both an organic explosive or thermic component and an inorganic explosive or thermic component |
| 39/00 | Compositions containing free phosphorus or a binary compound of phosphorus, except with oxygen | 47/00 | Compositions in which the components are separately stored until the moment of burning or explosion, e.g. "Sprengel"-type explosives; Suspensions of solid component in a normally non-explosive liquid phase, including a thickened aqueous phase |
| 39/02 | . with an inorganic oxygen-halogen salt | | NOTE |
| 39/04 | . . with a binary compound of phosphorus, except with oxygen | | {This group also covers emulsion type explosives in which a solid component is not compulsory} |
| 39/06 | . with free metal, alloy, boron, silicon, selenium or tellurium | | |
| 41/00 | Compositions containing a nitrated metallo-organic compound | | |
| 41/02 | . the compound containing lead | | |
| 41/04 | . . with an organic explosive or an organic thermic component | 47/02 | . the components comprising a binary propellant |
| 41/06 | . . . with an inorganic explosive or an inorganic thermic component | 47/04 | . . a component containing a nitrogen oxide or acid thereof |
| 41/08 | . . with a metal azide or a metal fulminate | 47/06 | . . a component being a liquefied normally gaseous material supplying oxygen (C06B 47/04 takes precedence) |
| 41/10 | . . with other nitrated metallo-organic compound | 47/08 | . . a component containing hydrazine or a hydrazine derivative |
| 43/00 | Compositions characterised by explosive or thermic constituents not provided for in groups C06B 25/00 - C06B 41/00 | 47/10 | . . a component containing free boron, an organic borane or a binary compound of boron, except with oxygen |
| 45/00 | Compositions or products which are defined by structure or arrangement of component of product (explosive charges of particular form or shape F42B 1/00, F42B 3/00) | 47/12 | . . a component being a liquefied normally gaseous fuel |
| 45/02 | . comprising particles of diverse size or shape | 47/14 | . comprising a solid component and an aqueous phase |
| 45/04 | . comprising solid particles dispersed in solid solution or matrix {not used for explosives where the matrix consists essentially of nitrated carbohydrates or a low molecular organic explosive} | 47/145 | . . {Water in oil emulsion type explosives in which a carbonaceous fuel forms the continuous phase} |
| 45/06 | . . the solid solution or matrix containing an organic component | 49/00 | Use of single substances as explosives |
| 45/08 | . . . the dispersed solid containing an inorganic explosive or an inorganic thermic component | | |
| 45/10 | . . . the organic component containing a resin | | |
| 45/105 | {The resin being a polymer bearing energetic groups or containing a soluble organic explosive} | | |
| 45/12 | . having contiguous layers or zones | | |