

CPC COOPERATIVE PATENT CLASSIFICATION

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

21/00 Apparatus or methods for working-up explosives, e.g. forming, cutting, drying

NOTE

In the absence of an indication to the contrary a process is classified in the last appropriate place, e.g. granulation by extrusion and chopping ([C06B 21/0075](#))

- 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}
- 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](#))}

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](#))}

- 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](#))}
- 23/002 . {Sensitisers or density reducing agents, foam stabilisers, crystal habit modifiers}
- 23/003 . . {Porous or hollow inert particles ([preparation C06B 21/0091](#))}
- 23/004 . . {Chemical sensitisers}
- 23/005 . {Desensitisers, phlegmatisers ([coolants for mining explosives C06B 23/04](#); [deactivating C06B 21/0091](#))}
- 23/006 . {Stabilisers (e.g. thermal stabilisers) ([processes C06B 21/0091](#); [foam stabilisers C06B 23/002](#))}
- 23/007 . {Ballistic modifiers, burning rate catalysts, burning rate depressing agents, e.g. for gas generating}
- 23/008 . {Tagging additives}

23/009	<ul style="list-style-type: none"> • {Wetting agents, hydrophobing agents, dehydrating agents, antistatic additives, viscosity improvers, antiagglomerating agents, grinding agents and other additives for working up} 	31/02	<ul style="list-style-type: none"> • the salt being an alkali metal or an alkaline earth metal nitrate
23/02	<ul style="list-style-type: none"> • for neutralising poisonous gases from explosives produced during blasting 	31/04	<ul style="list-style-type: none"> • . . with carbon or sulfur
23/04	<ul style="list-style-type: none"> • for cooling the explosion gases {including antifouling and flash suppressing agents} 	31/06	<ul style="list-style-type: none"> • . . . with an organic non-explosive or an organic non-thermic component
25/00	Compositions containing a nitrated organic compound	31/08	<ul style="list-style-type: none"> • . . with a metal oxygen-halogen salt, e.g. inorganic chlorate, inorganic perchlorate
25/02	<ul style="list-style-type: none"> • the nitrated compound being starch or sugar 	31/10	<ul style="list-style-type: none"> • . . . with carbon or sulfur
25/04	<ul style="list-style-type: none"> • the nitrated compound being an aromatic 	31/12	<ul style="list-style-type: none"> • . . with a nitrated organic compound
25/06	<ul style="list-style-type: none"> • . . with two or more nitrated aromatic compounds present 	31/14	<ul style="list-style-type: none"> • . . . the compound being an aromatic
25/08	<ul style="list-style-type: none"> • . . . at least one of which is nitrated toluene 	31/16	<ul style="list-style-type: none"> • the compound being a nitrated toluene
25/10	<ul style="list-style-type: none"> • the compound being nitroglycerine 	31/18	<ul style="list-style-type: none"> • the compound being a nitrated phenol, e.g. picric acid
25/12	<ul style="list-style-type: none"> • . . with other nitrated organic compounds 	31/20	<ul style="list-style-type: none"> • . . . the compound being nitroglycerine
25/14	<ul style="list-style-type: none"> • . . . the other compound being a nitrated aliphatic diol 	31/22	<ul style="list-style-type: none"> • . . . the compound being nitrocellulose
25/16	<ul style="list-style-type: none"> • . . . the other compound being a nitrated aromatic 	31/24	<ul style="list-style-type: none"> • with other explosive or thermic component
25/18	<ul style="list-style-type: none"> • the compound being nitrocellulose present as 10% or more by weight of the total composition 	31/26	<ul style="list-style-type: none"> • the other component being nitroglycerine
25/20	<ul style="list-style-type: none"> • . . with a non-explosive or a non-explosive or a non-thermic component 	31/28	<ul style="list-style-type: none"> • the salt being ammonium nitrate
25/22	<ul style="list-style-type: none"> • . . with a nitrated aromatic compound 	31/285	<ul style="list-style-type: none"> • . {with fuel oil, e.g. ANFO-compositions}
25/24	<ul style="list-style-type: none"> • . . with nitroglycerine 	31/30	<ul style="list-style-type: none"> • . . with vegetable matter; with resin; with rubber
25/26	<ul style="list-style-type: none"> • . . . with an organic non-explosive or an organic non-thermic component 	31/32	<ul style="list-style-type: none"> • . . with a nitrated organic compound
25/28	<ul style="list-style-type: none"> • the compound being nitrocellulose present as less than 10% by weight of the total composition 	31/34	<ul style="list-style-type: none"> • . . . the nitrated compound being starch or sugar
25/30	<ul style="list-style-type: none"> • . . with nitroglycerine 	31/36	<ul style="list-style-type: none"> • with other explosive or thermic component
25/32	<ul style="list-style-type: none"> • the compound being nitrated pentaerythritol 	31/38	<ul style="list-style-type: none"> • . . . the nitrated compound being an aromatic
25/34	<ul style="list-style-type: none"> • the compound being a nitrated acyclic, alicyclic or heterocyclic amine 	31/40	<ul style="list-style-type: none"> • with an organic non-explosive or an organic non-thermic component
25/36	<ul style="list-style-type: none"> • the compound being a nitroparaffin 	31/42	<ul style="list-style-type: none"> • with other explosive or thermic component
25/38	<ul style="list-style-type: none"> • . . with other nitrated organic compound 	31/44	<ul style="list-style-type: none"> • . . . the compound being nitroglycerine
25/40	<ul style="list-style-type: none"> • . . with two or more nitroparaffins present 	31/46	<ul style="list-style-type: none"> • with a vegetable matter component, e.g. wood pulp, sawdust
27/00	Compositions containing a metal, boron, silicon, selenium or tellurium or mixtures, intercompounds or hydrides thereof, and hydrocarbons or halogenated hydrocarbons	31/48	<ul style="list-style-type: none"> • with other explosive or thermic component
29/00	Compositions containing an inorganic oxygen-halogen salt, e.g. chlorate, perchlorate	31/50	<ul style="list-style-type: none"> • the other component being a nitrated organic compound
29/02	<ul style="list-style-type: none"> • of an alkali metal 	31/52	<ul style="list-style-type: none"> • . . . the compound being nitrocellulose present as 10% or more by weight of the total composition
29/04	<ul style="list-style-type: none"> • . . with an inorganic non-explosive or an inorganic non-thermic component 	31/54	<ul style="list-style-type: none"> • with other nitrated organic compound
29/06	<ul style="list-style-type: none"> • . . . the component being a cyanide; the component being an oxide of iron, chromium or manganese 	31/56	<ul style="list-style-type: none"> • . . . the compound being nitrocellulose present as less than 10% by weight of the total composition
29/08	<ul style="list-style-type: none"> • . . with an organic non-explosive or an organic non-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
29/10	<ul style="list-style-type: none"> • . . . the component being a dye or a colouring agent 	33/02	<ul style="list-style-type: none"> • with an organic non-explosive or an organic non-thermic component
29/12	<ul style="list-style-type: none"> • . . with carbon or sulfur 	33/04	<ul style="list-style-type: none"> • the material being an inorganic nitrogen-oxygen salt
29/14	<ul style="list-style-type: none"> • . . with iodine or an iodide 	33/06	<ul style="list-style-type: none"> • the material being an inorganic oxygen-halogen salt
29/16	<ul style="list-style-type: none"> • . . with a nitrated organic compound 	33/08	<ul style="list-style-type: none"> • with a nitrated organic compound
29/18	<ul style="list-style-type: none"> • . . . the compound being nitrated toluene or a nitrated phenol 	33/10	<ul style="list-style-type: none"> • . . the compound being an aromatic
29/20	<ul style="list-style-type: none"> • . . . the compound being nitrocellulose 	33/12	<ul style="list-style-type: none"> • the material being two or more oxygen-yielding compounds
29/22	<ul style="list-style-type: none"> • the salt being ammonium perchlorate 	33/14	<ul style="list-style-type: none"> • . . at least one being an inorganic nitrogen-oxygen salt
31/00	Compositions containing an inorganic nitrogen-oxygen salt	35/00	Compositions containing a metal azide
		37/00	Compositions containing a metal fulminate
		37/02	<ul style="list-style-type: none"> • with a nitrated organic compound or an inorganic oxygen-halogen salt

39/00	Compositions containing free phosphorus or a binary compound of phosphorus, except with oxygen	45/36	<ul style="list-style-type: none"> the component base containing both an organic explosive or thermic component and an inorganic explosive or thermic component
39/02	<ul style="list-style-type: none"> with an inorganic oxygen-halogen salt 		
39/04	<ul style="list-style-type: none"> with 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
39/06	<ul style="list-style-type: none"> with free metal, alloy, boron, silicon, selenium or tellurium 		
41/00	Compositions containing a nitrated metallo-organic compound		NOTE
41/02	<ul style="list-style-type: none"> the compound containing lead 		{ This group also covers emulsion type explosives in which a solid component is not compulsory }
41/04	<ul style="list-style-type: none"> with an organic explosive or an organic thermic component 		
41/06	<ul style="list-style-type: none"> with an inorganic explosive or an inorganic thermic component 	47/02	<ul style="list-style-type: none"> the component comprising a binary propellant
41/08	<ul style="list-style-type: none"> with a metal azide or a metal fulminate 	47/04	<ul style="list-style-type: none"> a component containing a nitrogen oxide or acid thereof
41/10	<ul style="list-style-type: none"> with other nitrated metallo-organic compound 	47/06	<ul style="list-style-type: none"> a component being a liquefied normally gaseous material supplying oxygen (C06B 47/04 takes precedence)
43/00	compositions characterised by explosive or thermic constituents not provided for in groups C06B 25/00 - C06B 41/00	47/08	<ul style="list-style-type: none"> a component containing hydrazine or a hydrazine derivative
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)	47/10	<ul style="list-style-type: none"> a component containing free boron, an organic borane or a binary compound of boron, except with oxygen
45/02	<ul style="list-style-type: none"> comprising particles of diverse size or shape 	47/12	<ul style="list-style-type: none"> a component being a liquefied normally gaseous fuel
45/04	<ul style="list-style-type: none"> 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} 	47/14	<ul style="list-style-type: none"> comprising a solid component and an aqueous phase
45/06	<ul style="list-style-type: none"> the solid solution or matrix containing an organic component 	47/145	<ul style="list-style-type: none"> {Water in oil emulsion type explosives in which a carbonaceous fuel forms the continuous phase}
45/08	<ul style="list-style-type: none"> the dispersed solid containing an inorganic explosive or an inorganic thermic component 	49/00	Use of single substances as explosives
45/10	<ul style="list-style-type: none"> the organic component containing a resin 		
45/105	<ul style="list-style-type: none"> {The resin being a polymer bearing energetic groups or containing a soluble organic explosive} 		
45/12	<ul style="list-style-type: none"> having contiguous layers or zones 		
45/14	<ul style="list-style-type: none"> a layer or zone containing an inorganic explosive or an inorganic explosive or an inorganic thermic component 		
45/16	<ul style="list-style-type: none"> the layer or zone containing at least one inorganic component from the group of azide, fulminate, phosphorus and phosphide 		
45/18	<ul style="list-style-type: none"> comprising a coated component (particles dispersed in a matrix C06B 45/04; coated explosive charges F42B) 		
45/20	<ul style="list-style-type: none"> the component base containing an organic explosive or an organic thermic component 		
45/22	<ul style="list-style-type: none"> the coating containing an organic compound 		
45/24	<ul style="list-style-type: none"> the compound being an organic explosive or an organic thermic component 		
45/26	<ul style="list-style-type: none"> the compound being a nitrated toluene 		
45/28	<ul style="list-style-type: none"> the component base containing nitrocellulose and nitroglycerine 		
45/30	<ul style="list-style-type: none"> the component base containing an inorganic explosive or an inorganic thermic component 		
45/32	<ul style="list-style-type: none"> the coating containing an organic compound 		
45/34	<ul style="list-style-type: none"> the compound being an organic explosive or an organic thermic component 		