

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.

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}		

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

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		