

## C06 EXPLOSIVES; MATCHES

## C06B EXPLOSIVE OR THERMIC COMPOSITIONS (blasting F42D); MANUFACTURE THEREOF; USE OF SINGLE SUBSTANCES AS EXPLOSIVES (compounds in general C01, C07 or C08) [2]

- (1) This subclass covers:
- compositions which are:
    - (a) 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; [2]
    - (b) thermic: compositions included have (i) 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 (ii) 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; [2]
    - (c) fuels for rocket engines and intended for reaction with an oxidant, excluding air, in order to provide thrust for motive power purposes; [2]
    - (d) for use in affecting the explosion environment, e.g. for neutralising the poisonous gases of explosives, for cooling the explosion gases, or the like; [2]
  - methods or apparatus for preparing or treating such compositions not otherwise provided for; [2]
  - methods of using single substances as explosives. [2]
- (2) In this subclass, the following term is used with the meaning indicated:
- “nitrated” covers compounds having a nitro group or a nitrate ester group. [2]
- (3) Methods or apparatus for preparing or treating such compositions are classified according to the particular components of the compositions. [2]

## EXPLOSIVE OR THERMIC COMPOSITIONS

Containing nitrated derivatives

inorganic..... 31/00

organic..... 25/00, 41/00

Containing nitrides or fulminates..... 35/00, 37/00

Containing chlorates or perchlorates..... 29/00

Containing metal..... 27/00, 33/00

Containing phosphorus ..... 39/00

Other compositions ..... 23/00, 43/00

Compositions defined by the structure or arrangement of the components..... 45/00, 47/00

## USE OF A SINGLE SUBSTANCE AS AN

EXPLOSIVE..... 49/00

MANUFACTURE ..... 21/00

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

25/16 . . . the other compound being a nitrated aromatic [2]

25/18 . the compound being nitrocellulose present as 10% or more by weight of the total composition [2]

25/20 . . with a non-explosive or a non-thermic component [2]

25/22 . . with a nitrated aromatic compound [2]

25/24 . . with nitroglycerine [2]

25/26 . . . with an organic non-explosive or an organic non-thermic component [2]

25/28 . the compound being nitrocellulose present as less than 10% by weight of the total composition [2]

25/30 . . with nitroglycerine [2]

25/32 . the compound being nitrated pentaerythritol [2]

25/34 . the compound being a nitrated acyclic, alicyclic or heterocyclic amine [2]

25/36 . the compound being a nitroparaffin [2]

25/38 . . with other nitrated organic compound [2]

25/40 . . with two or more nitroparaffins present [2]

## 23/00 Compositions characterised by non-explosive or non-thermic constituents [2]

23/02 . for neutralising poisonous gases from explosives produced during blasting [2]

23/04 . for cooling the explosion gases [2]

## 25/00 Compositions containing a nitrated organic compound [2]

25/02 . the nitrated compound being starch or sugar [2]

25/04 . the nitrated compound being an aromatic [2]

25/06 . . with two or more nitrated aromatic compounds present [2]

25/08 . . . at least one of which is nitrated toluene [2]

25/10 . the compound being nitroglycerine [2]

25/12 . . with other nitrated organic compound [2]

25/14 . . . the other compound being a nitrated aliphatic diol [2]

## 27/00 Compositions containing a metal, boron, silicon, selenium or tellurium or mixtures, intercompounds or hydrides thereof, and hydrocarbons or halogenated hydrocarbons [2]

## 29/00 Compositions containing an inorganic oxygen-halogen salt, e.g. chlorate, perchlorate [2]

29/02 . of an alkali metal [2]

- 29/04 . . . with an inorganic non-explosive or an inorganic non-thermic component [2]
- 29/06 . . . the component being a cyanide; the component being an oxide of iron, chromium or manganese [2]
- 29/08 . . . with an organic non-explosive or an organic non-thermic component [2]
- 29/10 . . . the component being a dye or a colouring agent [2]
- 29/12 . . . with carbon or sulfur [2]
- 29/14 . . . with iodine or an iodide [2]
- 29/16 . . . with a nitrated organic compound [2]
- 29/18 . . . the compound being nitrated toluene or a nitrated phenol [2]
- 29/20 . . . the compound being nitrocellulose [2]
- 29/22 . the salt being ammonium perchlorate [2]

**31/00 Compositions containing an inorganic nitrogen-oxygen salt [2]**

- 31/02 . the salt being an alkali metal or an alkaline earth metal nitrate [2]
- 31/04 . . . with carbon or sulfur [2]
- 31/06 . . . with an organic non-explosive or an organic non-thermic component [2]
- 31/08 . . . with a metal oxygen-halogen salt, e.g. inorganic chlorate, inorganic perchlorate [2]
- 31/10 . . . with carbon or sulfur [2]
- 31/12 . . . with a nitrated organic compound [2]
- 31/14 . . . the compound being an aromatic [2]
- 31/16 . . . the compound being a nitrated toluene [2]
- 31/18 . . . the compound being a nitrated phenol, e.g. picric acid [2]
- 31/20 . . . the compound being nitroglycerine [2]
- 31/22 . . . the compound being nitrocellulose [2]
- 31/24 . . . with other explosive or thermic component [2]
- 31/26 . . . the other component being nitroglycerine [2]
- 31/28 . the salt being ammonium nitrate [2]
- 31/30 . . . with vegetable matter; with resin; with rubber [2]
- 31/32 . . . with a nitrated organic compound [2]
- 31/34 . . . the nitrated compound being starch or sugar [2]
- 31/36 . . . with other explosive or thermic component [2]
- 31/38 . . . the nitrated compound being an aromatic [2]
- 31/40 . . . with an organic non-explosive or an organic non-thermic component [2]
- 31/42 . . . with other explosive or thermic component [2]
- 31/44 . . . the compound being nitroglycerine [2]
- 31/46 . . . with a vegetable matter component, e.g. wood pulp, sawdust [2]
- 31/48 . . . with other explosive or thermic component [2]
- 31/50 . . . the other component being a nitrated organic compound [2]
- 31/52 . . . the compound being nitrocellulose present as 10% or more by weight of the total composition [2]
- 31/54 . . . with other nitrated organic compound [2]
- 31/56 . . . the compound being nitrocellulose present as less than 10% by weight of the total composition [2]

**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 [2]**

- 33/02 . . . with an organic non-explosive or an organic non-thermic component [2]
- 33/04 . the material being an inorganic nitrogen-oxygen salt [2]
- 33/06 . the material being an inorganic oxygen-halogen salt [2]
- 33/08 . . . with a nitrated organic compound [2]
- 33/10 . . . the compound being an aromatic [2]
- 33/12 . the material being two or more oxygen-yielding compounds [2]
- 33/14 . . . at least one being an inorganic nitrogen-oxygen salt [2]

**35/00 Compositions containing a metal azide [2]**

**37/00 Compositions containing a metal fulminate [2]**

- 37/02 . . . with a nitrated organic compound or an inorganic oxygen-halogen salt [2]

**39/00 Compositions containing free phosphorus or a binary compound of phosphorus, except with oxygen [2]**

- 39/02 . . . with an inorganic oxygen-halogen salt [2]
- 39/04 . . . with a binary compound of phosphorus, except with oxygen [2]
- 39/06 . . . with free metal, alloy, boron, silicon, selenium or tellurium [2]

**41/00 Compositions containing a nitrated metallo-organic compound [2]**

- 41/02 . the compound containing lead [2]
- 41/04 . . . with an organic explosive or an organic thermic component [2]
- 41/06 . . . with an inorganic explosive or an inorganic thermic component [2]
- 41/08 . . . with a metal azide or a metal fulminate [2]
- 41/10 . . . with other nitrated metallo-organic compound [2]

**43/00 Compositions characterised by explosive or thermic constituents not provided for in groups C06B 25/00 C06B 41/00 [2]**

**45/00 Compositions or products which are defined by structure or arrangement of component or product (explosive charges of particular form or shape F42B 1/00, F42B 3/00) [2]**

- 45/02 . . . comprising particles of diverse size or shape [2]
- 45/04 . . . comprising solid particles dispersed in solid solution or matrix [2]
- 45/06 . . . the solid solution or matrix containing an organic component [2]
- 45/08 . . . the dispersed solid containing an inorganic explosive or an inorganic thermic component [2]
- 45/10 . . . the organic component containing a resin [2]
- 45/12 . . . having contiguous layers or zones [2]
- 45/14 . . . a layer or zone containing an inorganic explosive or an inorganic thermic component [2]
- 45/16 . . . the layer or zone containing at least one inorganic component from the group of azide, fulminate, phosphorus and phosphide [2]
- 45/18 . . . comprising a coated component (particles dispersed in a matrix C06B 45/04; coated explosive charges F42B) [2]

- 45/20 . . the component base containing an organic explosive or an organic thermic component [2]
  - 45/22 . . . the coating containing an organic compound [2]
  - 45/24 . . . . the compound being an organic explosive or an organic thermic component [2]
  - 45/26 . . . . . the compound being a nitrated toluene [2]
  - 45/28 . . . the component base containing nitrocellulose and nitroglycerine [2]
  - 45/30 . . the component base containing an inorganic explosive or an inorganic thermic component [2]
  - 45/32 . . . the coating containing an organic compound [2]
  - 45/34 . . . . the compound being an organic explosive or an organic thermic component [2]
  - 45/36 . . the component base containing both an organic explosive or thermic component and an inorganic explosive or thermic component [2]
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- 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 [2]**
  - 47/02 . the components comprising a binary propellant [2]
  - 47/04 . . a component containing a nitrogen oxide or acid thereof [2]
  - 47/06 . . a component being a liquefied normally gaseous material supplying oxygen (C06B 47/04 takes precedence) [2]
  - 47/08 . . a component containing hydrazine or a hydrazine derivative [2]
  - 47/10 . . a component containing free boron, an organic borane or a binary compound of boron, except with oxygen [2]
  - 47/12 . . a component being a liquefied normally gaseous fuel [2]
  - 47/14 . comprising a solid component and an aqueous phase [2]
  - 49/00 **Use of single substances as explosives [2]**