

SECTION C — CHEMISTRY; METALLURGY

C06 EXPLOSIVES; MATCHES

C06B EXPLOSIVE OR THERMIC COMPOSITIONS (blasting F42D); MANUFACTURE THEREOF; USE OF SINGLE SUBSTANCES AS EXPLOSIVES [2]

Note(s) [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;
 - 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;
 - c. fuels for rocket engines and intended for reaction with an oxidant, excluding air, in order to provide thrust for motive power purposes;
 - 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;
 - methods or apparatus for preparing or treating such compositions not otherwise provided for;
 - methods of using single substances as explosives.
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.
3. Methods or apparatus for preparing or treating such compositions are classified according to the particular components of the compositions.

Subclass index

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 [1, 2006.01]

Note(s) [2]

In groups C06B 23/00-C06B 49/00, in the absence of an indication to the contrary, a composition is classified in the last place that provides for an ingredient.

23/00 Compositions characterised by non-explosive or non-thermic constituents [2, 2006.01]

23/02 • for neutralising poisonous gases from explosives produced during blasting [2, 2006.01]

23/04 • for cooling the explosion gases [2, 2006.01]

25/00 Compositions containing a nitrated organic compound [2, 2006.01]

25/02 • the nitrated compound being starch or sugar [2, 2006.01]

25/04 • the nitrated compound being an aromatic [2, 2006.01]

25/06 • • with two or more nitrated aromatic compounds present [2, 2006.01]

25/08 • • • at least one of which is nitrated toluene [2, 2006.01]

25/10 • the compound being nitroglycerine [2, 2006.01]

25/12 • • with other nitrated organic compound [2, 2006.01]

25/14 • • • the other compound being a nitrated aliphatic diol [2, 2006.01]

25/16 • • • the other compound being a nitrated aromatic [2, 2006.01]

25/18 • the compound being nitrocellulose present as 10% or more by weight of the total composition [2, 2006.01]

- 25/20 • • with a non-explosive or a non-thermic component [2, 2006.01]
- 25/22 • • with a nitrated aromatic compound [2, 2006.01]
- 25/24 • • with nitroglycerine [2, 2006.01]
- 25/26 • • • with an organic non-explosive or an organic non-thermic component [2, 2006.01]
- 25/28 • the compound being nitrocellulose present as less than 10% by weight of the total composition [2, 2006.01]
- 25/30 • • with nitroglycerine [2, 2006.01]
- 25/32 • the compound being nitrated pentaerythritol [2, 2006.01]
- 25/34 • the compound being a nitrated acyclic, alicyclic or heterocyclic amine [2, 2006.01]
- 25/36 • the compound being a nitroparaffin [2, 2006.01]
- 25/38 • • with other nitrated organic compound [2, 2006.01]
- 25/40 • • with two or more nitroparaffins present [2, 2006.01]
- 27/00 Compositions containing a metal, boron, silicon, selenium or tellurium or mixtures, intercompounds or hydrides thereof, and hydrocarbons or halogenated hydrocarbons [2, 2006.01]**
- 29/00 Compositions containing an inorganic oxygen-halogen salt, e.g. chlorate, perchlorate [2, 2006.01]**
- 29/02 • of an alkali metal [2, 2006.01]
- 29/04 • • with an inorganic non-explosive or an inorganic non-thermic component [2, 2006.01]
- 29/06 • • • the component being a cyanide; the component being an oxide of iron, chromium or manganese [2, 2006.01]
- 29/08 • • with an organic non-explosive or an organic non-thermic component [2, 2006.01]
- 29/10 • • • the component being a dye or a colouring agent [2, 2006.01]
- 29/12 • • with carbon or sulfur [2, 2006.01]
- 29/14 • • with iodine or an iodide [2, 2006.01]
- 29/16 • • with a nitrated organic compound [2, 2006.01]
- 29/18 • • • the compound being nitrated toluene or a nitrated phenol [2, 2006.01]
- 29/20 • • • the compound being nitrocellulose [2, 2006.01]
- 29/22 • the salt being ammonium perchlorate [2, 2006.01]
- 31/00 Compositions containing an inorganic nitrogen-oxygen salt [2, 2006.01]**
- 31/02 • the salt being an alkali metal or an alkaline earth metal nitrate [2, 2006.01]
- 31/04 • • with carbon or sulfur [2, 2006.01]
- 31/06 • • • with an organic non-explosive or an organic non-thermic component [2, 2006.01]
- 31/08 • • with a metal oxygen-halogen salt, e.g. inorganic chlorate, inorganic perchlorate [2, 2006.01]
- 31/10 • • • with carbon or sulfur [2, 2006.01]
- 31/12 • • with a nitrated organic compound [2, 2006.01]
- 31/14 • • • the compound being an aromatic [2, 2006.01]
- 31/16 • • • • the compound being a nitrated toluene [2, 2006.01]
- 31/18 • • • • the compound being a nitrated phenol, e.g. picric acid [2, 2006.01]
- 31/20 • • • the compound being nitroglycerine [2, 2006.01]
- 31/22 • • • the compound being nitrocellulose [2, 2006.01]
- 31/24 • • • • with other explosive or thermic component [2, 2006.01]
- 31/26 • • • • • the other component being nitroglycerine [2, 2006.01]
- 31/28 • the salt being ammonium nitrate [2, 2006.01]
- 31/30 • • with vegetable matter; with resin; with rubber [2, 2006.01]
- 31/32 • • with a nitrated organic compound [2, 2006.01]
- 31/34 • • • the nitrated compound being starch or sugar [2, 2006.01]
- 31/36 • • • • with other explosive or thermic component [2, 2006.01]
- 31/38 • • • the nitrated compound being an aromatic [2, 2006.01]
- 31/40 • • • • with an organic non-explosive or an organic non-thermic component [2, 2006.01]
- 31/42 • • • • with other explosive or thermic component [2, 2006.01]
- 31/44 • • • the compound being nitroglycerine [2, 2006.01]
- 31/46 • • • • with a vegetable matter component, e.g. wood pulp, sawdust [2, 2006.01]
- 31/48 • • • • with other explosive or thermic component [2, 2006.01]
- 31/50 • • • • • the other component being a nitrated organic compound [2, 2006.01]
- 31/52 • • • the compound being nitrocellulose present as 10% or more by weight of the total composition [2, 2006.01]
- 31/54 • • • • with other nitrated organic compound [2, 2006.01]
- 31/56 • • • the compound being nitrocellulose present as less than 10% by weight of the total composition [2, 2006.01]
- 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, 2006.01]**
- 33/02 • with an organic non-explosive or an organic non-thermic component [2, 2006.01]
- 33/04 • the material being an inorganic nitrogen-oxygen salt [2, 2006.01]
- 33/06 • the material being an inorganic oxygen-halogen salt [2, 2006.01]
- 33/08 • with a nitrated organic compound [2, 2006.01]
- 33/10 • • the compound being an aromatic [2, 2006.01]
- 33/12 • the material being two or more oxygen-yielding compounds [2, 2006.01]
- 33/14 • • at least one being an inorganic nitrogen-oxygen salt [2, 2006.01]
- 35/00 Compositions containing a metal azide [2, 2006.01]**
- 37/00 Compositions containing a metal fulminate [2, 2006.01]**
- 37/02 • with a nitrated organic compound or an inorganic oxygen-halogen salt [2, 2006.01]
- 39/00 Compositions containing free phosphorus or a binary compound of phosphorus, except with oxygen [2, 2006.01]**
- 39/02 • with an inorganic oxygen-halogen salt [2, 2006.01]
- 39/04 • • with a binary compound of phosphorus, except with oxygen [2, 2006.01]
- 39/06 • with free metal, alloy, boron, silicon, selenium or tellurium [2, 2006.01]
- 41/00 Compositions containing a nitrated metallo-organic compound [2, 2006.01]**
- 41/02 • the compound containing lead [2, 2006.01]
- 41/04 • • with an organic explosive or an organic thermic component [2, 2006.01]

- 41/06 • • • with an inorganic explosive or an inorganic thermic component [2, 2006.01]
- 41/08 • • with a metal azide or a metal fulminate [2, 2006.01]
- 41/10 • • with other nitrated metallo-organic compound [2, 2006.01]
- 43/00 Compositions characterised by explosive or thermic constituents not provided for in groups C06B 25/00-C06B 41/00 [2, 2006.01]**
- 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, 2006.01]**
- 45/02 • comprising particles of diverse size or shape [2, 2006.01]
- 45/04 • comprising solid particles dispersed in solid solution or matrix [2, 2006.01]
- 45/06 • • the solid solution or matrix containing an organic component [2, 2006.01]
- 45/08 • • • the dispersed solid containing an inorganic explosive or an inorganic thermic component [2, 2006.01]
- 45/10 • • • the organic component containing a resin [2, 2006.01]
- 45/12 • having contiguous layers or zones [2, 2006.01]
- 45/14 • • a layer or zone containing an inorganic explosive or an inorganic thermic component [2, 2006.01]
- 45/16 • • • the layer or zone containing at least one inorganic component from the group of azide, fulminate, phosphorus and phosphide [2, 2006.01]
- 45/18 • comprising a coated component (particles dispersed in a matrix C06B 45/04; coated explosive charges F42B) [2, 2006.01]
- 45/20 • • the component base containing an organic explosive or an organic thermic component [2, 2006.01]
- 45/22 • • • the coating containing an organic compound [2, 2006.01]
- 45/24 • • • • the compound being an organic explosive or an organic thermic component [2, 2006.01]
- 45/26 • • • • • the compound being a nitrated toluene [2, 2006.01]
- 45/28 • • • the component base containing nitrocellulose and nitroglycerine [2, 2006.01]
- 45/30 • • the component base containing an inorganic explosive or an inorganic thermic component [2, 2006.01]
- 45/32 • • • the coating containing an organic compound [2, 2006.01]
- 45/34 • • • • the compound being an organic explosive or an organic thermic component [2, 2006.01]
- 45/36 • • the component base containing both an organic explosive or thermic component and an inorganic explosive or thermic component [2, 2006.01]
- 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, 2006.01]**
- 47/02 • the components comprising a binary propellant [2, 2006.01]
- 47/04 • • a component containing a nitrogen oxide or acid thereof [2, 2006.01]
- 47/06 • • a component being a liquefied normally gaseous material supplying oxygen (C06B 47/04 takes precedence) [2, 2006.01]
- 47/08 • • a component containing hydrazine or a hydrazine derivative [2, 2006.01]
- 47/10 • • a component containing free boron, an organic borane or a binary compound of boron, except with oxygen [2, 2006.01]
- 47/12 • • a component being a liquefied normally gaseous fuel [2, 2006.01]
- 47/14 • comprising a solid component and an aqueous phase [2, 2006.01]
- 49/00 Use of single substances as explosives [2, 2006.01]**

C06C DETONATING OR PRIMING DEVICES; FUSES; CHEMICAL LIGHTERS; PYROPHORIC COMPOSITIONS [2]

- 5/00 **Fuses, e.g. fuse cords [1, 2006.01]**
- 5/04 • Detonating fuses [1, 2006.01]
- 5/06 • Fuse igniting means; Fuse connectors [1, 2006.01]
- 5/08 • Devices for the manufacture of fuses [1, 2006.01]
- 7/00 **Non-electric detonators; Blasting caps; Primers [1, 2006.01]**
- 7/02 • Manufacture; Packing [1, 2006.01]
- 9/00 **Chemical contact igniters; Chemical lighters [1, 2006.01]**
- 15/00 **Pyrophoric compositions; Flints (chemical lighters C06C 9/00) [1, 2006.01]**

C06D MEANS FOR GENERATING SMOKE OR MIST; GAS-ATTACK COMPOSITIONS; GENERATION OF GAS FOR BLASTING OR PROPULSION (CHEMICAL PART) [2]

- 3/00 **Generation of smoke or mist [chemical part] (compositions used as biocides, pest repellants or attractants, or plant growth regulators A01N 25/18) [1, 2006.01]**
- 5/00 **Generation of pressure gas, e.g. for blasting cartridges, starting cartridges, rockets (explosive compositions containing an oxidizer, fuels for rocket engines intended for reaction with an oxidant other than air C06B) [1, 2006.01]**
- 5/02 • by decompressing compressed, liquefied, or solidified gases [1, 2006.01]
- 5/04 • by auto-decomposition of single substances [1, 2006.01]
- 5/06 • by reaction of two or more solids [1, 2006.01]
- 5/08 • by reaction of two or more liquids [1, 2006.01]
- 5/10 • by reaction of solids with liquids [1, 2006.01]
- 7/00 **Compositions for gas-attacks [1, 2006.01]**

C06F MATCHES; MANUFACTURE OF MATCHES

1/00 Mechanical manufacture of matches [1, 2006.01]

- 1/02 • Cutting match splints [1, 2006.01]
- 1/04 • Filling match splints into carrier bars; Discharging matches [1, 2006.01]
- 1/06 • Dipping, coating, impregnating, or drying of matches [1, 2, 2006.01]
- 1/08 • Carrier bars [1, 2006.01]
- 1/10 • • Guiding means for carrier bars [1, 2006.01]
- 1/12 • Filling matches into boxes [1, 2006.01]
- 1/14 • Manufacture of ignition strips [1, 2006.01]
- 1/16 • Manufacture of matches connected together, e.g. in bands or blocks [1, 2006.01]
- 1/18 • Printing on matches or match-boxes when combined with match manufacture [1, 2006.01]
- 1/20 • Applying strike-surfaces, e.g. on match-boxes, on match-books [1, 2006.01]

- 1/22 • Manufacturing of match-books, match packs or match packages [1, 2006.01]

- 1/24 • Safety devices against fire [1, 2006.01]

- 1/26 • Production lines for complete match manufacture [1, 2006.01]

3/00 Chemical features in the manufacture of matches [1, 2006.01]

- 3/02 • Wooden strip for matches or substitute therefor [1, 2006.01]

- 3/04 • • Chemical treatment before or after dipping, e.g. dyeing, impregnating [1, 2006.01]

- 3/08 • Strike-surface compositions [1, 2006.01]

5/00 Matches (match-books A24F 27/12) [1, 2006.01]

- 5/02 • Permanent matches [1, 2006.01]

- 5/04 • Wax matches [1, 2006.01]