# 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

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**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]**