

- b. Construction equipment specially designed for military use;
- c. Fittings, coatings and treatments for signature suppression, specially designed for military use;
- d. Field engineer equipment specially designed for use in a combat zone;
- e. "Robots", "robot" controllers and "robot" "end-effectors", having any of the following characteristics:
  - 1. Specially designed for military use;
  - 2. Incorporating means of protecting hydraulic lines against externally induced punctures caused by ballistic fragments (e.g. incorporating self-sealing lines) and designed to use hydraulic fluids with flash points higher than 839 K (566°C);
  - 3. Operable at altitudes exceeding 30,000 m; **or**
  - 4. Specially designed or rated for operating in an electro-magnetic pulse (EMP) environment;
- f. Libraries (parametric technical databases) specially designed for military use with equipment embargoed by this List;

**Technical Note:**

For the purpose of this Item, the term 'library' (parametric technical database) means a collection of technical information of a military nature, reference to which may enhance the performance of military equipment or systems.

**2018. Equipment and technology for the "production" of products referred to in this List, as follows:**

- a. Specially designed or modified "production" equipment for the "production" of products embargoed by this List, and specially designed components therefor;
- b. Specially designed environmental test facilities and specially designed equipment therefor, for the certification, qualification or testing of products embargoed by this List;
- c. Specific "production" technology, even if the equipment with which such technology is to be used is unembargoed;
- d. Technology specific to the design of, the assembly of components into, and the operation, maintenance and repair of complete "production" installations even if the components themselves are unembargoed.

**Note:**

- 1. Sub-items a. and b. include the following equipment:
  - a. Continuous nitrators;
  - b. Centrifugal testing apparatus or equipment having any of the following characteristics:
    - 1. Driven by a motor or motors having a total rated horsepower of more than 298 kW (400 hp);
    - 2. Capable of carrying a payload of 113 kg or more; **or**
    - 3. Capable of exerting a centrifugal acceleration of 8 g or more on a payload of 91 kg or more;
  - c. Dehydration presses;
  - d. Screw extruders specially designed or modified for military explosive extrusion;
  - e. Cutting machines for the sizing of extruded propellants;
  - f. Sweetie barrels (tumblers) 1.85 m and over in diameter and having over 227 kg product capacity;
  - g. Continuous mixers for solid propellants;
  - h. Fluid energy mills for grinding or milling the ingredients of military explosives;
  - i. Equipment to achieve both sphericity and uniform particle size in metal powder listed in Note 1.a.1 to Item 2008;
  - j. Convection current converters for the conversion of materials listed in Note 1.a.6. to Item 2008.
- 2. a. The term 'products referred to in this List' includes:
  - 1. Products not embargoed if inferior to specified concentrations as follows:
    - a. hydrazine (see Note 1.a.18. to Item 2008);
    - b. "Military high explosives" (see Item 2008);
  - 2. Products not embargoed if inferior to technical limits, i.e. "superconductive" materials not embargoed by Category 1013.5 on the Industrial List; "superconductive" electromagnets not embargoed by Category 1031.1.e.3. on the Industrial List; "superconductive" electrical equipment excluded from embargo under Item 2020 b.;
  - 3. Metal fuels and oxidants deposited in laminar form from the vapour phase (see Note 1.a.2. to Item 2008);

- b. The term 'products referred to in this List' does not include:
  - 1. Signal pistols (see Item 2002.b.);
  - 2. The substances excluded from embargo under Note 2 to Item 2007;
  - 3. Personal radiation monitoring dosimeters and masks for protection against specific industrial hazards (see Note 4 to Item 2007);
  - 4. Acetylene, propane, liquid oxygen, difluoramine (HNF<sub>2</sub>), fuming nitric acid and potassium nitrate powder (see Note 7 to Item 2008);
  - 5. Aero-engines excluded from embargo under Item 2010;
  - 6. Conventional steel helmets not equipped with, or modified or designed to accept, any type of accessory device (see Note 2 to Item 2013);
  - 7. Equipment fitted with unembargoed industrial machinery, such as coating machinery not elsewhere specified and equipment for the casting of plastics;
  - 8. Muskets, rifles and carbines dated earlier than 1938, reproductions of muskets, rifles and carbines dated earlier than 1890, revolvers, pistols and machine guns dated earlier than 1890, and their reproductions; (Note 2.b.8. does not allow the export of technology or production equipment for non-antique small arms, even if used to produce reproductions of antique small arms.)
- 3. Sub-item d. does not include technology for civil purposes, such as agricultural, pharmaceutical, medical, veterinary, environmental, waste management, or in the food industry (see Note 5 to Item 2007).

**2020. Cryogenic and "superconductive" equipment, as follows, and specially designed components and accessories therefor:**

- a. Equipment specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space applications, capable of operating while in motion and of producing or maintaining temperatures below 103 K (-170°C);

**Note:**

Sub-item a. includes mobile systems incorporating or employing accessories or components manufactured from non-metallic or non-electrical conductive materials, such as plastics or epoxy-impregnated materials.

- b. "Superconductive" electrical equipment (rotating machinery and transformers) specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space applications, capable of operating while in motion.

**Note:**

Sub-item b. does not embargo direct-current hybrid homopolar generators that have single-pole normal metal armatures which rotate in a magnetic field produced by superconducting windings, provided those windings are the only superconducting component in the generator.