

II

(Non-legislative acts)

REGULATIONS

COUNCIL REGULATION (EU) 2023/1214

of 23 June 2023

amending Regulation (EU) No 833/2014 concerning restrictive measures.

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 215 thereof,

Having regard to Council Decision (CFSP) 2023/1217 of 23 June 2023 amending Decision 2014/512/CFSP concerning restrictive measures.

Having regard to the joint proposal from the High Representative of the Union for Foreign Affairs and Security Policy and the European Commission,

Whereas:

- (1) On 31 July 2014, the Council adopted Regulation (EU) No 833/2014 ⁽¹⁾, concerning restrictive measures.
- (2) Regulation (EU) No 833/2014 gives effect to certain measures provided for in Council Decision 2014/512/CFSP ⁽²⁾.
- (3) On 23 June 2023, the Council adopted Decision (CFSP) 2023/1217, amending Decision 2014/512/CFSP.
- (4) Activities whose object or effect is to circumvent the prohibitions laid down in Regulation (EU) No 833/2014 undermine the purpose and effectiveness of the Union's restrictive measures.
- (5) In order to minimise the risk of circumvention of the restrictive measures, Decision (CFSP) 2023/1217 prohibits the transit via the territory of Russia of goods and technology which might contribute to Russia's military and technological enhancement or to the development of its defence and security sector, goods and technology suited for use in aviation or space industry and jet fuel and fuel additives, exported from the Union.

(1) See page 451 of this Official Journal.

(2) Council Regulation (EU) No 833/2014 of 31 July 2014 concerning restrictive measures.

(3) Council Decision 2014/512/CFSP of 31 July 2014 concerning restrictive measures.

- (7) The Union recognises the efforts made by national authorities in many third countries to stem the flow of goods, technology and services that are covered by the restrictive measures. The Union should further support third countries in that endeavour with all available means.
- (8) In order to address the circumvention of the Union's restrictive measures through third country jurisdictions, the Union should rapidly strengthen bilateral and multilateral cooperation through diplomatic engagement with, and the provision of increased technical assistance to, the third countries in question. In order to develop, together with Member States, a fully coordinated approach to that effect, the Commission will brief the Council on a regular basis.
- (9) Further action should be taken rapidly in cases where the Union's efforts in the framework of bilateral or multilateral cooperation do not yield the intended result of preventing circumvention of the restrictive measures by persons or entities in third countries. Such action should be targeted, proportionate and solely aimed at depriving Russia of the resources.
- (10) The Union should adopt the appropriate individual measures addressing the involvement of third-country operators in facilitating circumvention. Such measures may include individual designations under Council Regulation (EU) No 269/2014 (*) or other measures under Regulation (EU) No 833/2014, such as adding entities to Annex IV to Regulation (EU) No 833/2014, including on the basis of information and suggestions received from Member States.
- (11) The Union will re-engage in a constructive dialogue with the third country in question following the adoption of such individual measures, with a view to ensuring that remedial measures are put in place to deter other operators from engaging in similar conduct. The Council will be informed about that re-engagement and its outcome.
- (12) Where, following the adoption of individual measures and further engagement with the third country, it is manifest, given the volume, type or systemic nature of the ongoing circumvention, that those steps are insufficient or inadequate to prevent such circumvention in or via the third country concerned, the Union should be able to take further measures.
- (13) To that effect, Decision (CSFP) 2023/1217 has introduced the possibility to take exceptional, last-resort measures restricting the sale, supply, transfer or export of sensitive dual-use goods and technology, or goods and technology that might contribute to the enhancement of Russia's military, technological or industrial capacities or to the development of Russia's defence and security sector, in a way that strengthens its ability to wage war, and whose export to Russia is prohibited under Regulation (EU) No 833/2014 to third countries whose jurisdiction is demonstrated to be at a continuing and particularly high risk of being used for circumvention.
- (14) Before a proposal is submitted to the Council to proceed to those last-resort measures, the High Representative of the Union for Foreign Affairs and Security Policy and the Commission will brief the Council on the technical details, on the outreach actions taken and on enforcement measures.
- (15) Decisions to include a third country and targeted goods or technology in the scope of that measure should be based on the inclusion by the Council, acting unanimously, of the relevant country and goods or technology in Annex XIV to Decision 2014/512/CFSP.
- (16) When deciding whether to include targeted goods and technology and the third countries concerned by that last-resort measure, based on that proposal, the Council should take into account a thorough technical analysis by the Commission on the circumvention issues in question, including available trade data demonstrating that the alternative measures taken have been ineffective, as well as information about the efforts carried out by the Union to address the matter with the third country in question, and a clear indication that such efforts were not successful.

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- (17) Before including a third country on the list of countries concerned by that measure, the Union should inform and actively seek the views of the government of that third country on the basis of the preliminary findings set out in the technical analysis by the Commission and the Union's intended remedial action. The Council will be informed of all steps of the engagement and of the outcome. The Council will only adopt such a decision after the final outreach to that third country has been concluded.
- (18) The Council should review the content of Annex XXXIII to Regulation (EU) No 833/2014 at regular intervals, on the basis of thorough technical information by the Commission. Such review needs to take into account the objectives of the measure and the result of the continuous engagement with the third countries concerned, including measures proposed by the third countries on how to address circumvention.
- (19) Decision (CFSP) 2023/1217 adds 87 new entities to the list of legal persons, entities and bodies set out in Annex IV to Decision 2014/512/CFSP, namely the list of entities directly supporting Russia's military and industrial complex, on which tighter export restrictions regarding dual-use goods and technology, as well as goods and technology which might contribute to the technological enhancement of Russia's defence and security sector, are imposed. In particular, taking into account the direct connection between Iranian manufacturers of military Unmanned Aerial Vehicles and Russia's military and industrial complex, four additional entities in third countries involved in the manufacturing of Unmanned Aerial Vehicles and their provision to Russia should be added to that list. In addition, in view of the key enabling role of electronic components for use by Russia's military and industrial complex, it is also appropriate to include on that list certain other entities in third countries involved in the circumvention of trade restrictions as well as certain Russian entities involved in the development, production and supply of electronic components for Russia's military and industrial complex.
- (20) Decision (CFSP) 2023/1217 expands the list of items which contribute to Russia's military and technological enhancement or to the development of its defence and security sector by adding items which have been used by Russia and items which contribute to the development or production of its military systems, including electronic components, semiconductor materials, manufacturing and testing equipment for electronic integrated circuits and printed circuit boards, precursors to energetic materials and precursors to chemical weapons, optical components, navigational instruments, metals used in the defence sector and marine equipment. Decision (CFSP) 2023/1217 also extends the list of restricted firearms, their parts, essential components and ammunition, and adds other types of arms.
- (21) Decision (CFSP) 2023/1217 imposes further restrictions on exports of goods which could contribute to the enhancement of Russian industrial capacities.
- (22) Decision (CFSP) 2023/1217 prohibits the sale, license or transfer in any other way of intellectual property rights or trade secrets, as well as the granting of rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets, related to the goods and technology whose sale, supply, transfer or export, to a person, entity or body in Russia or for use in Russia is prohibited.
- (23) Decision (CFSP) 2023/1217 also extends the suspension of the broadcasting licences in the Union of five Russian media outlets under the permanent control of the Russian leadership, and the prohibition against broadcasting their content.

- (24) In view of the gravity of the situation, it is necessary, consistent with the fundamental rights and freedoms recognised in the Charter of Fundamental Rights of the European Union, in particular with the right to freedom of expression and information as recognised in Article 11 thereof, to introduce further restrictive measures to suspend the broadcasting activities of such media outlets in the Union or directed at the Union.
- (25) Consistent with the fundamental rights and freedoms recognised in the Charter of Fundamental Rights of the European Union, in particular with the right to freedom of expression and information, the freedom to conduct a business and the right to property as recognised in Articles 11, 16 and 17 thereof, those measures do not prevent the media outlets and their staff from carrying out activities in the Union other than broadcasting, such as research and interviews. In particular, those measures do not modify the obligation to respect the rights, freedoms and principles referred to in Article 6 of the Treaty on European Union, set out in the Charter of Fundamental Rights of the European Union, and in Member States' constitutions, within their respective fields of application.
- (26) In order to ensure consistency with the process provided for in Decision 2014/512/CFSP for suspending broadcasting licences, the Council should exercise implementing powers to decide, following an examination of the respective cases, whether the restrictive measures are to become applicable on the date specified in Regulation (EU) No 833/2014 in respect of several entities listed in Annex XV to Regulation (EU) No 833/2014.
- (27) Decision (CFSP) 2023/1217 extends the prohibition on the transport of goods by road in the Union by trailers and semi-trailers registered in Russia, including when hauled by trucks registered outside of Russia.
- (28) Attempts to circumvent Union restrictive measures have resulted in a sharp increase of deceptive practices by vessels transporting Russian crude oil and petroleum products. Consequently, Decision (CFSP) 2023/1217 prohibits access to ports and locks in the territory of the Union by vessels engaged in ship-to-ship transfers where the competent authorities have reasonable cause to suspect that a vessel is in breach of the ban on importing seaborne Russian crude oil and petroleum products into the Union or is transporting Russian crude oil or petroleum products purchased above the price cap agreed by the Price Cap Coalition. That prohibition applies to all vessels, irrespective of their flag of registration, and to any ship-to-ship transfers carried out at any point during the voyage to a Member State's ports or locks. In any event, vessels will be prohibited from accessing ports and locks in the territory of the Union if they do not notify the competent authority at least 48 hours in advance about a ship-to-ship transfer occurring within specific geographical areas. In addition, that prohibition will further reinforce the measures adopted by Member States to protect their coasts from potential environmental accidents caused by such ship-to-ship transfers.
- (29) Decision (CFSP) 2023/1217 also prohibits access to ports and locks in the territory of the Union by vessels which competent authorities have reasonable cause to suspect of illegally interfering with, switching off or otherwise disabling their shipborne automatic identification systems (AIS) when transporting Russian crude oil and petroleum products in breach of SOLAS Regulation V/19, point 2.4. That prohibition does not apply in circumstances where the shipborne AIS can be legitimately turned off in accordance with international agreements, rules or standards that provide for the protection of navigational information, such as navigation through high-security-risk waters. That prohibition also applies to all vessels, irrespective of their flag of registration, and for any illegal interference with the navigation system at any point during the voyage to a Member State's ports or locks.

- (30) The assessment by the competent authorities in the context of those port access prohibitions should be made on the basis of a risk analysis allowing the competent authority to evaluate whether there are sufficient factual circumstances to suspect a breach. For instance, that risk analysis should take into account whether vessels have complied with any prenotification requirements of ship-to-ship transfers and other relevant legal obligations or have notified the transport of dangerous goods or polluting goods, namely crude oil and petroleum products ⁽⁵⁾. The Commission should also publish notices of behaviour at risk of maritime sanctions in order to support the competent authorities' risk analysis including by making use of the appropriate information technology tools.
- (31) The Commission, with the assistance of the European Maritime Safety Agency (EMSA), should support the competent authorities through, inter alia, the monitoring and notification of suspicious ship-to-ship transfers and incidents of illegally interfering with, switching off or otherwise disabling of the shipborne AIS, and facilitating the exchange of information based on the Union Maritime Information and Exchange System ('SafeSeaNet'), which enables the receipt, storage, retrieval and exchange of information for the purpose of maritime safety, port and maritime security, marine environment protection and the efficiency of maritime traffic and maritime transport. National competent authorities within the meaning of Commission Directive 2014/100/EU ⁽⁶⁾ should provide their port authorities, if different, with access to that system without delay. Using SafeSeaNet, the Commission, with the assistance of EMSA, should support national competent authorities to monitor any vessels of interest, in particular those navigating within the 200 nautical miles limit from Member States' coastlines, with all means available.
- (32) In order to mitigate forum shopping, competent authorities in a Member State which deny access to a vessel should immediately exchange information on such denial with the other competent authorities of the Member States via the existing platforms at their disposal. The Commission should work closely with EMSA to immediately facilitate any technical adjustments to SafeSeaNet based on the competent authorities' notifications.
- (33) Prohibitions relating to port access apply to any vessel, whether it is moored at a port or at anchorage within the jurisdiction of a port of a Member State. In the case of the Gulf of Finland, those prohibitions relate to any vessel, whether it is moored at a port or at anchorage that is located in the territorial waters or internal waters of a Member State.
- (34) Appropriate exemptions and derogations are provided for to allow such vessels access to ports and locks in the territory of the Union for maritime safety, including environmental concerns, for saving life at sea and for humanitarian purposes.
- (35) Council Decision (CFSP) 2022/884 ⁽⁷⁾ and Council Regulation (EU) 2022/879 ⁽⁸⁾ provide that Member States are to take all necessary measures to obtain supplies which are alternative to imports by pipeline of crude oil from Russia, so that those imports are made subject to the prohibitions as soon as possible. In line with this objective, the temporary derogation granted to Germany and Poland for the supply of crude oil by pipeline from Russia through the northern section of the Druzhba oil pipeline should end. The import of oil which originates in Kazakhstan or another third country and is transiting through Russia via the Druzhba oil pipeline is not prohibited.

(5) Annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL), Regulation 42; Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC (OJ L 208, 5.8.2002, p. 10).

(6) Commission Directive 2014/100/EU of 28 October 2014 amending Directive 2002/59/EC of the European Parliament and of the Council establishing a Community vessel traffic monitoring and information system (OJ L 308, 29.10.2014, p. 82).

(7) Council Decision (CFSP) 2022/884 of 3 June 2022 amending Decision 2014/512/CFSP concerning restrictive measures.

(8) Council Regulation (EU) 2022/879 of 3 June 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures.

- (39) The price cap mechanism provides that specific projects that are essential for the energy security of certain third countries may be exempted from the price cap. The exemption provided for in relation to the Sakhalin-2 (Сахалин-2) Project, located in Russia, should be extended until 31 March 2024 to ensure Japan's energy security needs.
- (40) In order not to undermine critical energy supplies which are not prohibited from being imported into the Union from third countries, it is appropriate to guarantee the adequate maintenance and operation of the Caspian Pipeline Consortium (CPC) infrastructures, which enable the purchase, import or transfer of goods falling under CN 2709 00 originating in Kazakhstan and which are only being loaded in, departing from or transiting through Russia. Decision (CFSP) 2023/1217 introduced derogations from the prohibitions on the sale, supply, transfer or export directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia of certain goods or technology, on the provision of related financing or financial assistance, technical assistance, brokering services or other services, or on the provision of auditing services, engineering services, legal advisory services, technical testing and analysis services which are strictly necessary for that purpose, subject to strict conditions to avoid the risk of circumvention.
- (41) To avoid circumvention of the prohibition on providing transferable securities to persons in Russia, Decision (CFSP) 2023/1217 extended that prohibition to financial instruments denominated in any currency.
- (42) Decision (CFSP) 2023/1217 also introduced a derogation from the prohibition to provide certain services to Russian entities required for the setting-up, certification or evaluation of a firewall removing the control exercised by a listed person over the assets of a non-listed Union entity which the listed person owns or controls, and ensuring that no benefit accrues to the latter, thus allowing that entity to continue its business operations.
- (43) Decision (CFSP) 2023/1217 further clarifies the evidence required for importation of iron and steel products processed in a third country incorporating iron and steel products originating in Russia.
- (44) Decision (CFSP) 2023/1217 introduced a derogation from the prohibition on purchasing, importing or transferring certain items which generate significant revenues for Russia and which are necessary for the operation, maintenance or repair of Budapest metro line 3 cars.
- (45) Decision (CFSP) 2023/1217 introduced clarifications regarding the competent authorities which receive notifications of non-scheduled flights between Russia and the Union.
- (46) Decision (CFSP) 2023/1217 extended the deadline for the application of a temporary derogation from the prohibition on providing certain services, with the aim of further facilitating divestment from the Russian market by Union operators. In order to expedite the divestment of Russian operators from the Union market, Decision (CFSP) 2023/1217 introduces a temporary derogation from the prohibition on providing legal advisory services to legal persons, entities or bodies established in Russia. The competent authorities of the Member States may authorise the provision, until 31 March 2024, of legal services which are mandatory, under the national legislation of the Member State, for such divestments to be completed.
- (47) In order to ensure full and uniform implementation of the restrictive measures, it is appropriate for Member States to inform the other Member States and the Commission of any authorisation denied under Regulation (EU) No 833/2014, and to share information on requests for authorisation that they intend to grant where a denial has already been notified by another Member State, so as to avoid forum shopping.
- (48) It is also appropriate to enhance the exchange of information on the application and enforcement of export, such as dual-use goods and goods listed in Annex VII to Regulation (EU) No 833/2014, in order to counter the risk of circumvention by persons or entities involved in the procurement of prohibited Union goods for use in Russia, or the provision of prohibited services, in breach of Regulation (EU) No 833/2014.

- (49) It is appropriate to further clarify the provisions on exchange of information between the authorities of a Member State and with the authorities of other Member States and the Commission.
- (50) Decision (CFSP) 2023/1217 extends the list of partner countries which are applying a set of export control measures substantially equivalent to those set out in Regulation (EU) No 833/2014.
- (51) Finally, Decision (CFSP) 2023/1217 makes certain technical corrections in the operative text and in the Annexes, including by deleting references to transitional periods which have expired, as well as reorganising the structure of certain Annexes to Regulation (EU) No 833/2014. As a consequence of the latter, the prohibition concerning coal imports is covered by Article 3i and Annex XXI of Regulation (EU) No 833/2014; therefore Article 3j and Annex XXII to Regulation (EU) No 833/2014 have become redundant and are deleted. The deletion of references to transition periods which have already expired is not intended to have any legal effects on past or ongoing contracts or on the applicability of those transition periods.
- (52) These measures fall within the scope of the Treaty on the Functioning of the European Union and therefore, in particular with a view to ensuring their uniform application in all Member States, regulatory action at the level of the Union is necessary.
- (53) Regulation (EU) No 833/2014 should therefore be amended accordingly,

HAS ADOPTED THIS REGULATION:

Article 1

Regulation (EU) No 833/2014 is amended as follows:

- (1) in Article 2(2), the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

- (2) Article 2a is amended as follows:

- (a) the following paragraph is inserted:

‘1a. The transit via the territory of Russia of goods and technology which might contribute to Russia’s military and technological enhancement or to the development of its defence and security sector, as listed in Annex VII, exported from the Union, shall be prohibited.’;

- (b) in paragraph 2, the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

- (c) the following paragraph is inserted:

‘3a. The prohibition in paragraph 1a shall not apply to the transit via the territory of Russia of goods and technology which might contribute to Russia’s military and technological enhancement or to the development of its defence and security sector, as listed in Annex VII, intended for the purposes set out in points (a) to (e) of paragraph 3.’;

(d) in paragraph 4, the following point is added:

‘(i) intended for the exclusive use and under the full control of the authorising Member State and in order to fulfil its maintenance obligations in areas which are under a long-term lease agreement between that Member State and the Russian Federation.’;

(e) the following paragraph is inserted:

‘4a. By way of derogation from paragraph 1a, the competent authorities may authorise the transit via the territory of Russia of goods and technology which might contribute to Russia’s military and technological enhancement or to the development of its defence and security sector, as listed in Annex VII, after having determined that such goods or technology are intended for the purposes set out in points (b), (c), (d), and (h) of paragraph 4.’;

(3) Article 2aa is amended as follows:

(a) paragraph 1 is replaced by the following:

‘1. It shall be prohibited to sell, supply, transfer or export, directly or indirectly, firearms, their parts and essential components and ammunition as listed in Annex I to Regulation (EU) No 258/2012 of the European Parliament and of the Council (*) and firearms and other arms as listed in Annex XXXV to this Regulation, whether or not originating in the Union, to any natural or legal person, entity or body in Russia or for use in Russia.’

(*) Regulation (EU) No 258/2012 of the European Parliament and of the Council of 14 March 2012 implementing Article 10 of the United Nations’ Protocol against the illicit manufacturing of and trafficking in firearms, their Parts and components and ammunition, supplementing the United Nations Convention against Transnational Organised Crime (UN Firearms Protocol), and establishing export authorisation, and import and transit measures for firearms, their parts and components and ammunition (OJ L 94, 30.3.2012, p. 1).’;

(b) in paragraph 2, the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(4) in Article 2d, paragraph 1 is replaced by the following:

‘1. The competent authorities shall exchange information on the application of Articles 2, 2a and 2b with the other Member States and the Commission, including on any authorisation granted or denied and, in the event of suspected forum shopping or other cases as appropriate, on requests for authorisation received.’

The competent authorities shall exchange information on the enforcement of Articles 2, 2a and 2b with the other Member States and the Commission, including on related infringements and penalties, as well as best practices of national enforcement authorities and the detection and prosecution of unauthorised exports. The exchange of information shall be carried out using the electronic system provided pursuant to Article 23(6) of Regulation (EU) 2021/821.’;

(5) in Article 3(2), the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(6) in Article 3b(2), the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(7) Article 3c, is amended as follows:

(a) the following paragraph is inserted:

‘1a. The transit via the territory of Russia of goods and technology suited for use in aviation or the space industry, as listed in Annex XI, and of jet fuel and fuel additives, as listed in Annex XX, exported from the Union, shall be prohibited.’;

(b) in paragraph 4, the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(c) the following paragraphs are inserted:

‘6d. By way of derogation from paragraph 1a, the competent authorities may authorise the transit via the territory of Russia of goods and technology suited for use in aviation or the space industry, as listed in Annex XI, and of jet fuels and fuel additives as listed in Annex XX, after having determined that such goods or technology are intended for the purposes set out in paragraphs 6a, 6b and 6c of this Article.

6e. By way of derogation from paragraph 1, the competent authorities may authorise the sale, supply, transfer or export of the goods listed in Part B of Annex XI, if the goods are intended for the exclusive use and under the full control of the authorising Member State and in order to fulfil its maintenance obligations in areas which are under a long-term lease agreement between that Member State and the Russian Federation.’;

(8) in Article 3d, paragraph 5 is replaced by the following:

‘5. Aircraft operators of non-scheduled flights between Russia and the Union, operated directly or via a third country, shall notify prior to their operation, and at least 48 hours in advance, all relevant information concerning the flight to the competent authorities of the Member State of departure or destination.’;

(9) in Article 3ea(5), point (e) is deleted;

(10) the following Articles are inserted:

‘Article 3eb

1. It shall be prohibited, as of 24 July 2023, to provide access to ports and locks in the territory of the Union, by any vessel performing ship-to-ship transfers, at any point of the voyage to a Member State’s ports or locks, if the competent authority has reasonable cause to suspect that the vessel is in breach of the prohibitions set out in Article 3m(1) and (2) and Article 3n(1) and (4).

2. A competent authority shall not grant access if a vessel does not notify the competent authority at least 48 hours in advance about a ship-to-ship transfer occurring within the Exclusive Economic Zone of a Member State or within 12 nautical miles from the baseline of that Member State’s coast.

3. Paragraphs 1 and 2 shall not apply in the case of a vessel in need of assistance seeking a place of refuge, of an emergency port call for reasons of maritime safety, or for saving life at sea.

4. By way of derogation from paragraphs 1 and 2, the competent authorities may authorise a vessel to access a port or lock in the territory of the Union, under such conditions as they deem appropriate, after having determined that such access is necessary for humanitarian purposes.
5. Upon refusal of a port access call in accordance with paragraphs 1 and 2, the competent authorities concerned shall immediately inform the other competent authorities of the Member States. The Member State concerned shall inform the other Member States and the Commission without delay.
6. For the purposes of paragraphs 1 and 2, the competent authorities shall use, in addition to any national system and information, the integrated maritime information available in the Union Maritime Information and Exchange System (SafeSeaNet) established in accordance with Directive 2002/59/EC of the European Parliament and of the Council (*).

Article 3ec

1. It shall be prohibited, as of 24 July 2023, to provide access to ports and locks in the territory of the Union by any vessel which the competent authority has reasonable cause to suspect of illegally interfering with, switching off or otherwise disabling its shipborne automatic identification system at any point of the voyage to a Member State's ports or locks, in breach of SOLAS Regulation V/19, point 2.4, when transporting crude oil or petroleum products subject to the prohibitions set out in Article 3m(1) and (2) and Article 3n(1) and (4).
2. Paragraph 1 shall not apply in the case of a vessel in need of assistance seeking a place of refuge, of an emergency port call for reasons of maritime safety, or for saving life at sea.
3. By way of derogation from paragraph 1, the competent authorities may authorise a vessel to access a port or lock in the territory of the Union, under such conditions as they deem appropriate, after having determined that such access is necessary for humanitarian purposes.
4. Upon refusal of a port access call in accordance with paragraph 1, the competent authorities concerned shall immediately inform the other competent authorities of the Member States. The Member State concerned shall inform the other Member States and the Commission without delay.
5. For the purposes of paragraph 1, the competent authorities shall use, in addition to any national system and information, the integrated maritime information available in the Union Maritime Information and Exchange System (SafeSeaNet) established in accordance with Directive 2002/59/EC.

(*): Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC (OJ L 208, 5.8.2002, p. 10).';

(11) in Article 3f(2), the following point is added:

'(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.';

(12) Article 3g is amended as follows:

(a) in paragraph 1, point (d) is replaced by the following:

'(d) to import or purchase, as from 30 September 2023, directly or indirectly, iron and steel products as listed in Annex XVII when processed in a third country incorporating iron and steel products originating in Russia as listed in Annex XVII; with regard to products listed in Annex XVII processed in a third country incorporating steel products originating in Russia of CN codes 7207 11, 7207 12 10 or 7224 90, this prohibition shall apply as of 1 April 2024 for CN code 7207 11 and as of 1 October 2024 for CN codes 7207 12 10 and 7224 90;

For the purposes of the application of this point, at the moment of importation, importers shall provide evidence of the country of origin of the iron and steel inputs used for the processing of the product in a third country.’;

(b) paragraphs 2 and 3 are deleted;

(13) Article 3h is amended as follows:

(a) paragraph 2 is replaced by the following:

‘2. It shall be prohibited to:

- (a) provide technical assistance, brokering services or other services related to the goods referred to in paragraph 1 and related to the provision, manufacture, maintenance and use of those goods, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia;
- (b) provide financing or financial assistance related to the goods referred to in paragraph 1 for any sale, supply, transfer or export of those goods, or for the provision of related technical assistance, brokering services or other services, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia;
- (c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(b) the following paragraph is inserted:

‘2a. The prohibitions referred to in paragraphs 1 and 2 shall apply to the luxury goods listed in Annex XVIII insofar as their value exceeds EUR 300 per item, unless otherwise specified in that Annex.’;

(c) the following paragraph is inserted:

‘4a. By way of derogation from paragraphs 1 and 2, the competent authorities may authorise the sale or supply of a vessel falling under CN code 8901 10 00 or 8901 90 00, or the provision, until 31 December 2023, of related technical or financial assistance to a legal person, entity or body in Russia or for use in Russia, under such conditions as they deem appropriate, after having determined that:

- (a) the vessel is physically located in Russia on 24 June 2023 and for use in Russia;
- (b) the vessel has flown the Russian Federation flag under a bareboat charter registration initially effected prior to 24 February 2022;
- (c) the legal person, entity or body in Russia is not a military end user and will not use the vessel for military purposes;
- (d) the sale or supply is not for the benefit of a natural or legal person, entity or body listed in Annex I to Regulation (EU) No 269/2014 or subject to the restrictive measures provided for in this Regulation.’;

(d) paragraph 5 is replaced by the following:

‘5. The Member State concerned shall inform the other Member States and the Commission of any authorisations granted under paragraphs 4 and 4a within two weeks of the authorisation.’;

(14) Article 3i is amended as follows:

(a) paragraphs 3, 3b, 3ba and 3d are deleted;

(b) the following paragraph is inserted:

‘3e. By way of derogation from paragraphs 1 and 2 of this Article, the competent authorities may authorise the purchase, import or transfer of goods falling under CN codes 7007, 8479, 8481, 8487, 8504, 8517, 8525, 8531, 8536, 8537, 8538, 8542, 8543, 8603 as listed in Annex XXI, or the provision of related technical and financial assistance, under such conditions as they deem appropriate, after having determined that this is necessary for the operation, maintenance or repair of Budapest metro line 3 cars delivered in 2018, in execution of a guarantee provided by Metrowagonmash prior to 24 June 2023.’;

(15) Article 3j is deleted;

(16) Article 3k is amended as follows:

(a) in paragraph 2, the following point is added:

‘(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in Russia or for use in Russia.’;

(b) paragraph 3 is replaced by the following:

‘3. With regard to the goods of a value not exceeding EUR 50 000 per unit falling under CN codes 8703 23, 8703 24, 8703 32, 8703 33, 8703 40, 8703 50, 8703 60, 8703 70, 8703 80, 8703 90 or 8903, the prohibitions in paragraphs 1 and 2 shall not apply to the execution until 25 September 2023 of contracts concluded before 24 June 2023, or of ancillary contracts necessary for the execution of such contracts.’;

(c) paragraph 3a is replaced by the following:

‘3a. With regard to the goods falling under CN codes 2710 12, 2909 60, 3905 99, 4002 19, 4002 70, 4010 11, 4010 12, 4011 20, 4012 90, 4805 93, 4810 29, 4823 90, 7216 61, 8402 11, 8454 30, 8477 10, 8477 20, 8477 59, 8477 80, 8477 90, 8514 32, 8514 40, 8525 89, 8704 21, 9024 90, 9031 10, 9031 41, 9031 49, 9031 80, 9031 90 or 9406 20, the prohibitions in paragraphs 1 and 2 shall not apply to the execution until 25 September 2023 of contracts concluded before 24 June 2023, or of ancillary contracts necessary for the execution of such contracts.’;

(d) paragraph 3b is replaced by the following:

‘3b. With regard to the goods falling under CN codes included for the first time in Annex XXIII to this Regulation on 24 June 2023 and which are not referred to in paragraphs 3 and 3a of this Article, and with the exception of goods falling under CN codes which were already included in Annex XVIII to this Regulation, the prohibitions in paragraphs 1 and 2 of this Article shall not apply to the execution until 25 September 2023 of contracts concluded before 24 June 2023, or of ancillary contracts necessary for the execution of such contracts.’;

(e) paragraph 3c is deleted;

(f) paragraph 5b is replaced by the following:

‘5b. By way of derogation from paragraphs 1 and 2, the competent authorities may authorise, under such conditions as they deem appropriate, the sale, supply, transfer or export of the goods falling under CN chapters 72, 84, 85 and 90 as listed in Annex XXIII, or related technical assistance, brokering services, financing or financial assistance, after having determined that it is strictly necessary for the production of titanium goods required in the aeronautic industry, for which no alternative supply is available.’;

(g) paragraph 7 is replaced by the following:

‘7. The Member State concerned shall inform the other Member States and the Commission of any authorisation granted under paragraphs 5, 5a and 5b within two weeks of the authorisation.’;

(17) Article 3l is amended as follows:

(a) the following paragraph is inserted:

‘1a. The prohibition in paragraph 1 shall apply to the transport of goods within the territory of the Union by road transport undertakings, carried out by means of trailers or semi-trailers registered in Russia, including if those trailers or semi-trailers are hauled by trucks registered in other countries.’;

(b) the following paragraph is inserted:

‘3a. The prohibition in paragraph 1a shall not apply until 30 June 2023 to the transport of goods that started before 24 June 2023, provided that the trailer or semi-trailer:

(a) was already in the territory of the Union on 24 June 2023; or

(b) needs to transit through the Union in order to be returned to Russia.’;

(c) in paragraph 4, the introductory wording is replaced by the following:

‘4. By way of derogation from paragraphs 1 and 1a, the competent authorities of a Member State may authorise the transport of goods by a road transport undertaking established in Russia or any road transport undertaking when the goods are carried out by means of trailers or semi-trailers registered in Russia, including if those trailers or semi-trailers are hauled by trucks registered in other countries, if the competent authorities have determined that such transport is necessary for.’;

(18) in Article 3m, the following paragraph is inserted:

‘3a. The exemption in paragraph 3, point (d), shall stop applying to Germany and Poland on 23 June 2023.’;

(19) in Article 4(1), point (a) is replaced by the following:

‘(a) to provide, directly or indirectly, technical assistance and brokering services related to the goods and technology listed in the Common Military List (*), or related to the provision, manufacture, maintenance and use of goods included in that list, to any natural or legal person, entity or body in Russia or for use in Russia;

(*) Latest version published in OJ C 85, 13.3.2020, p. 147.’;

(20) in Article 5aa(3), point (c) is deleted;

(21) in Article 5f, paragraph 1 is replaced by the following:

‘1. It shall be prohibited to sell transferable securities denominated in any official currency of a Member State issued after 12 April 2022, or denominated in any other currency issued after 6 August 2023, or units in collective investment undertakings providing exposure to such securities, to any Russian national or natural person residing in Russia or any legal person, entity or body established in Russia.’;

(22) Article 5k is amended as follows:

(a) in paragraph 1, the introductory wording is replaced by the following:

‘1. It shall be prohibited to award or continue the execution of any public or concession contract falling within the scope of the public procurement Directives, as well as Article 10(1), (3), (6) points (a) to (e), (8), (9) and (10), Articles 11, 12, 13 and 14 of Directive 2014/23/EU, Article 7, points (a) to (d), and Article 8, Article 10 points (b) to (f) and (h) to (j) of Directive 2014/24/EU, Article 18, Article 21 points (b) to (e) and (g) to (i), Articles 29 and 30 of Directive 2014/25/EU and Article 13 points (a) to (d), (f) to (h) and (j) of Directive 2009/81/EC, to or with.’;

(b) in paragraph 2, point (f) is deleted;

(23) Article 5n is amended as follows:

(a) the following paragraph is inserted:

‘9a. By way of derogation from paragraphs 1 and 2, the competent authorities may authorise the provision of services referred to therein, under such conditions as they deem appropriate, after having determined that those services are strictly necessary for the setting-up, certification or evaluation of a firewall which:

- (a) removes the control by a natural or legal person, entity or body listed in Annex I to Regulation (EU) No 269/2014, over the assets of a non-listed legal person, entity or body incorporated or constituted under the law of a Member State which is owned or controlled by the former; and
- (b) ensures that no further funds or economic resources accrue to the benefit of the listed natural or legal person, entity or body.’;

(b) paragraph 11 is replaced by the following:

‘11. The Member State concerned shall inform the other Member States and the Commission of any authorisation granted under paragraphs 9a and 10 within two weeks of the authorisation.’;

(24) the following Article is inserted:

‘Article 5q

1. By way of derogation from Articles 2, 2a, 3f and 3k, the competent authorities may authorise the sale, supply, transfer, export or transit through Russia of the goods and technology referred to in those Articles, or the provision of related technical assistance, brokering services or other services, or financing or financial assistance, for the operation and maintenance of the Caspian Pipeline Consortium (CPC) pipelines and associated infrastructure necessary for the transport of goods falling under CN 2709 00 originating in Kazakhstan and which are only being loaded in, departing from or transiting through Russia, under such conditions as they deem appropriate, after having determined that:

- (a) such a sale, supply, transfer, export, transit through Russia or the provision of related technical assistance, brokering services or other services, or financing and financial assistance, is necessary for the operation, essential maintenance, repair or replacement of components of the CPC pipeline and associated infrastructure;
- (b) the type of goods, technologies and assistance requested does not go beyond the type of goods and technology previously exported from, or the assistance previously provided from, the Union, a country member of the European Economic Area, Switzerland or a partner country as listed in Annex VIII to Russia for the operation, essential maintenance, repair or replacement of components of the CPC pipeline and associated infrastructure, and related assistance;
- (c) the requested volumes are commensurate with those used for the operation, essential maintenance, repair or replacement of components of the CPC pipeline and associated infrastructure; and
- (d) such goods and technology will be provided by a natural or legal person subject to Article 13 exclusively for end use in the operation, essential maintenance, repair or replacement of components of the CPC pipeline and associated infrastructure.

2. By way of derogation from Article 5n, the competent authorities may authorise the provision of auditing services, engineering services, legal advisory services, technical testing and analysis services for the operation and maintenance of the CPC pipelines and associated infrastructure necessary for the transport of goods falling under CN 2709 00 originating in Kazakhstan and which are only being loaded in, departing from or transiting through Russia after having determined that:

- (a) the provision of those services is necessary for the operation, essential maintenance, repair or replacement of components of the CPC pipeline and associated infrastructure; and

(b) such services are provided by a natural or legal person subject to Article 13.

3. The Member State concerned shall inform the other Member States and the Commission of any authorisation granted under paragraphs 1 and 2 within two weeks of the authorisation.

4. When granting an authorisation under paragraphs 1 and 2, the competent authority shall require the presentation of an end-user certificate and detailed regular reports indicating that no such goods, technology or services were diverted from their intended purpose during the relevant works. It may impose additional conditions, in accordance with paragraph 1.;

(25) Article 6(1) is amended as follows:

(a) point (a) is replaced by the following:

‘(a) authorisations granted or denied under this Regulation;’;

(b) point (d), is replaced by the following:

‘(d) detected instances of breach, circumvention and attempts at breach or circumvention of the prohibitions set out in this Regulation including through the use of crypto-assets.’;

(26) the following Articles are inserted:

Article 6a

1. The Member State or Member States concerned shall inform the other Member States and the Commission of any authorisation denied under Articles 3, 3a, 3b, 3c, 3d, 3ea, 3f, 3g, 3h, 3i, 3k, 3m, 3n, 5a, 5c, 5d, 5k, 5m, 5n, 5p and 12b within two weeks of the denial.

2. Before a Member State grants an authorisation in accordance with Articles 3, 3a, 3b, 3c, 3d, 3ea, 3f, 3g, 3h, 3i, 3k, 3m, 3n, 5a, 5c, 5d, 5k, 5m, 5n, 5p and 12b for a transaction which is essentially identical to a transaction which is the subject of a denial that is still valid issued by another Member State or by other Member States, it shall first consult the Member State or Member States which issued the denial. If, following such consultations, the Member State concerned decides to grant an authorisation, it shall inform the other Member States and the Commission thereof, providing all relevant information to explain that decision.

Article 6b

1. Consistent with respect for the confidentiality of communications between lawyers and their clients guaranteed in Article 7 of the Charter of Fundamental Rights of the European Union and, where applicable, without prejudice to rules regarding the confidentiality of information held by judicial authorities, natural and legal persons, entities and bodies shall:

(a) supply any information which would facilitate the implementation of this Regulation to the competent authority of the Member State where they are resident or located within two weeks of acquiring this information; and

(b) cooperate with the competent authority in any verification of such information.

2. The Member State concerned shall transmit to the Commission any relevant information received pursuant to paragraph 1 within one month of receiving it. The Member State concerned may transmit such information in an anonymised form if an investigating or judicial authority has declared it to be confidential in the context of pending criminal investigations or criminal judicial proceedings.

3. Any additional information received directly by the Commission shall be made available to the Member States.

4. Any information provided to or received by the competent authorities of the Member States in accordance with this Article shall be used by those authorities only for the purposes for which it was provided or received.’;

(27) in Article 12a, paragraphs 2 and 3 are replaced by the following:

‘2. For the purposes of this Regulation, the Commission is designated as “controller” within the meaning of Article 3(8) of Regulation (EU) 2018/1725 in relation to the processing activities necessary to accomplish the tasks referred to in paragraph 1.

3. The competent authorities of the Member States, including enforcement authorities, customs authorities within the meaning of Regulation (EU) No 952/2013 of the European Parliament and of the Council (*), competent authorities within the meaning of Regulation (EU) No 575/2013, Directive (EU) 2015/849 of the European Parliament and of the Council (**), and Directive 2014/65/EU, as well as administrators of official registers wherein natural persons, legal persons, entities and bodies as well as immovable or movable property are registered, shall process and exchange without delay information, including personal data and, if necessary, the information referred to in Article 6b(1), with other competent authorities of their Member State, of other Member States and the Commission, if such processing and exchange is necessary to carry out the tasks of the processing authority or the receiving authority under this Regulation, in particular when they detect instances of a breach or circumvention, or attempts at a breach or circumvention of the prohibitions set out in this Regulation. This provision is without prejudice to rules regarding the confidentiality of information held by judicial authorities.

(*) Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code (OJ L 269, 10.10.2013, p. 1).

(**) Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC (OJ L 141, 5.6.2015, p. 73).’;

(28) Article 12b is amended as follows:

(a) in paragraph 1, the introductory wording is replaced by the following:

‘1. By way of derogation from Articles 2, 2a, 3, 3b, 3c, 3f, 3h and 3k, the competent authorities may authorise the sale, supply or transfer of goods and technologies listed in Annexes II, VII, X, XI, XVI, XVIII, XX and XXIII to this Regulation and in Annex I to Regulation (EU) 2021/821 as well as the sale, licensing or transfer in any other way of intellectual property rights or trade secrets as well as granting rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets, related to the goods and technology mentioned above until 31 December 2023, where such sale, supply, transfer, licensing, granting rights to access or re-use is strictly necessary for the divestment from Russia or the wind-down of business activities in Russia, provided that the following conditions are fulfilled:’;

(b) the following paragraph is inserted:

‘1a. By way of derogation from Article 3, the competent authorities may authorise the sale, supply or transfer of goods and technologies listed in Annex II until 31 March 2024, where such sale, supply or transfer is strictly necessary for the divestment from a joint venture incorporated or constituted under the law of a Member State before 24 February 2022, involving a Russian legal person, entity or body, and operating a gas pipeline infrastructure between Russia and third countries.’;

(c) in paragraph 2a, the introductory wording is replaced by the following:

‘2a. By way of derogation from Article 5n, the competent authorities may authorise the continuation of the provision of services listed therein until 31 March 2024 where such provision of services is strictly necessary for the divestment from Russia or the wind-down of business activities in Russia, provided that the following conditions are fulfilled:’;

(d) the following paragraph is inserted:

‘2b. By way of derogation from Article 5n(2), the competent authorities may authorise the provision, until 31 March 2024, of legal advisory services which are legally required for the completion of a sale or transfer of proprietary rights directly or indirectly owned by legal persons, entities or bodies established in Russia in a legal person, entity or body established in the Union.’;

(e) paragraph 3 is replaced by the following:

‘3. The Member State concerned shall inform the other Member States and the Commission of any authorisation granted under paragraphs 1, 1a, 2, 2a or 2b within two weeks of the authorisation.’;

(29) the following Article is inserted:

Article 12f

1. It shall be prohibited to sell, supply, transfer or export, directly or indirectly, goods and technology as listed in Annex XXXIII, whether or not originating in the Union, to any natural or legal person, entity or body in the third country specified in that Annex.

2. It shall be prohibited to:

(a) provide technical assistance, brokering services or other services related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in the third country specified;

(b) provide financing or financial assistance related to the goods and technology referred to in paragraph 1 for any sale, supply, transfer or export of those goods and technology, or for the provision of related technical assistance, brokering services or other services, directly or indirectly to any natural or legal person, entity or body in the third country specified;

(c) sell, license or transfer in any other way intellectual property rights or trade secrets as well as grant rights to access or re-use any material or information protected by means of intellectual property rights or constituting trade secrets related to the goods and technology referred to in paragraph 1 and to the provision, manufacture, maintenance and use of those goods and technology, directly or indirectly to any natural or legal person, entity or body in the third country specified.

3. Annex XXXIII shall only include sensitive dual-use goods and technology, or goods and technology that might contribute to the enhancement of Russia’s military, technological or industrial capacities or to the development of Russia’s defence and security sector, in a way that strengthens its ability to wage war, and whose export to Russia is prohibited under this Regulation and that present a high and continuous risk of being sold, supplied, transferred or exported from third countries to Russia after being sold, supplied, transferred or exported from the Union. Annex XXXIII shall specify, for each item of listed goods or technology, the third countries to which the sale, supply, transfer or export is prohibited. Annex XXXIII shall only include third countries that have been identified by the Council as having systematically and persistently failed to prevent the sale, supply, transfer or export to Russia of goods and technology, as listed in that Annex, exported from the Union, despite the Union’s prior outreach and assistance to the country in question.

4. If the sale, supply, transfer or export of goods or technology listed in Annex XXXIII to a natural or legal person, entity or body in Russia or for use in Russia is not prohibited under certain exemptions provided for in this Regulation, their sale, supply, transfer or export to a natural or legal person, entity or body in the third country specified shall not be prohibited, provided that the same conditions applicable under this Regulation for export to Russia or for use in Russia are fulfilled.

5. If the sale, supply, transfer or export of goods or technology listed in Annex XXXIII to a natural or legal person, entity or body in Russia or for use in Russia can be authorised by the competent authorities in accordance with this Regulation, their sale, supply, transfer or export to a natural or legal person, entity or body in the third country specified may be authorised by the competent authorities under the same conditions applicable to derogations for exports to Russia or for use in Russia.’;

- (30) Annex IV is amended in accordance with Annex I to this Regulation;
- (31) Annex VII is amended in accordance with Annex II to this Regulation;
- (32) Annex VIII is amended in accordance with Annex III to this Regulation.
- (33) Annex XV is amended in accordance with Annex IV to this Regulation.

This point shall apply in respect of one or several of the entities referred to in Annex IV to this Regulation as from 1 October 2023 and provided that the Council, having examined the respective cases, so decides by implementing act;

- (34) Annex XVII is amended in accordance with Annex V to this Regulation;
- (35) Annex XVIII is amended in accordance with Annex VI to this Regulation;
- (36) Annex XXI is amended in accordance with Annex VII to this Regulation;
- (37) Annex XXII is deleted;
- (38) Annex XXIII is amended in accordance with Annex VIII to this Regulation;
- (39) Annex XXIX is amended in accordance with Annex IX to this Regulation;
- (40) Annex XXXIII is added in accordance with Annex X to this Regulation;
- (41) Annex XXXV is added in accordance with Annex XI to this Regulation.

Article 2

This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 23 June 2023.

For the Council
The President
J. ROSWALL

ANNEX I

Annex IV to Regulation (EU) No 833/2014 is replaced by the following:

‘ANNEX IV

This Annex lists natural or legal persons, entities or bodies which are military end-users, form part of Russia’s military-industrial complex or which have commercial or other links with or which otherwise support Russia’s defence and security sector. These natural or legal persons, entities or bodies contribute to Russia’s military and technological enhancement or to the development of Russia’s defence and security sector. They include natural or legal persons, entities or bodies in third countries other than Russia. Their inclusion in this Annex does not entail any attribution of responsibility for their actions to the jurisdiction in which they are operating.

List of natural or legal persons, entities or bodies, referred to in Articles 2(7), 2a(7) and 2b(1)

1. JSC Sirius (Russia)
2. OJSC Stankoinstrument (Russia)
3. OAO JSC Chemcomposite (Russia)
4. JSC Kalashnikov (Russia)
5. JSC Tula Arms Plant (Russia)
6. NPK Technologii Maschinostrojenija (Russia)

7. OAO Wysokototschnye Kompleksi (Russia)
8. OAO Almaz Antey (Russia)
9. OAO NPO Bazalt (Russia)
10. Admiralty Shipyard JSC (Russia)
11. Aleksandrov Scientific Research Technological Institute NITI (Russia)
12. Argut OOO (Russia)
13. Communication center of the Ministry of Defense (Russia)
14. Federal Research Center Boreskov Institute of Catalysis (Russia)
15. Federal State Budgetary Enterprise of the Administration of the President of Russia (Russia)
16. Federal State Budgetary Enterprise Special Flight Unit Rossiya of the Administration of the President of Russia (Russia)
17. Federal State Unitary Enterprise Dukhov Automatics Research Institute (VNIIA) (Russia)
18. Foreign Intelligence Service (SVR) (Russia)

19. Forensic Center of Nizhny Novgorod Region Main Directorate of the Ministry of Interior Affairs (Russia)
20. International Center for Quantum Optics and Quantum Technologies (the Russian Quantum Center) (Russia)
21. Irkut Corporation (Russia)
22. Irkut Research and Production Corporation Public Joint Stock Company (Russia)
23. Joint Stock Company Scientific Research Institute of Computing Machinery (Russia)
24. JSC Central Research Institute of Machine Building (JSC TsNIIMash) (Russia)
25. JSC Kazan Helicopter Plant Repair Service (Russia)
26. JSC Shipyard Zaliv (Zaliv Shipbuilding yard) (Autonomous Republic of Crimea, illegally annexed by Russia)
27. JSC Rocket and Space Centre – Progress (Russia)
28. Kamensk-Uralsky Metallurgical Works J.S. Co. (Russia)
29. Kazan Helicopter Plant PJSC (Russia)
30. Komsomolsk-na-Amur Aviation Production Organization (KNAAPO) (Russia)

31. Ministry of Defence RF (Russia)
32. Moscow Institute of Physics and Technology (Russia)
33. NPO High Precision Systems JSC (Russia)
34. NPO Splav JSC (Russia)
35. OPK Oboronprom (Russia)
36. PJSC Beriev Aircraft Company (Russia)
37. PJSC Irkut Corporation (Russia)
38. PJSC Kazan Helicopters (Russia)
39. POLYUS Research Institute of M.F. Stelmakh Joint Stock Company (Russia)
40. Promtech-Dubna, JSC (Russia)
41. Public Joint Stock Company United Aircraft Corporation (Russia)
42. Radiotechnical and Information Systems (RTI) Concern (Russia)
43. Rapart Services LLC (Russia)
44. Rosoboronexport OJSC (ROE) (Russia)

45. Rostec (Russian Technologies State Corporation) (Russia)
46. Rostekh – Azimuth (Russia)
47. Russian Aircraft Corporation MiG (Russia)
48. Russian Helicopters JSC (Russia)
49. SP KVANT (Sovmestnoe Predpriyatie Kvantovye Tekhnologii) (Russia)
50. Sukhoi Aviation JSC (Russia)
51. Sukhoi Civil Aircraft (Russia)
52. Tactical Missiles Corporation JSC (Russia)
53. Tupolev JSC (Russia)
54. UEC-Saturn (Russia)
55. United Aircraft Corporation (Russia)
56. JSC AeroKompozit (Russia)
57. United Engine Corporation (Russia)
58. UEC-Aviadvigatel JSC (Russia)
59. United Instrument Manufacturing Corporation (Russia)

60. United Shipbuilding Corporation (Russia)
61. JSC PO Sevmash (Russia)
62. Krasnoye Sormovo Shipyard (Russia)
63. Severnaya Shipyard (Russia)
64. Shipyard Yantar (Russia)
65. UralVagonZavod (Russia)
66. Baikal Electronics (Russia)
67. Center for Technological Competencies in Radiophotonics (Russia)
68. Central Research and Development Institute Tsiklon (Russia)
69. Crocus Nano Electronics (Russia)
70. Dalzavod Ship-Repair Center (Russia)
71. Elara (Russia)
72. Electronic Computing and Information Systems (Russia)
73. ELPROM (Russia)
74. Engineering Center Ltd. (Russia)

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75. Forss Technology Ltd. (Russia)
 76. Integral SPB (Russia)
 77. JSC Element (Russia)
 78. JSC Pella-Mash (Russia)
 79. JSC Shipyard Vympel (Russia)
 80. Kranark LLC (Russia)
 81. Lev Anatolyevich Yershov (Ershov) (Russia)
 82. LLC Center (Russia)
 83. MCST Lebedev (Russia)
 84. Miass Machine-Building Factory (Russia)
 85. Microelectronic Research and Development Center Novosibirsk (Russia)
 86. MPI VOLNA (Russia)
 87. N.A. Dollezhal Order of Lenin Research and Design Institute of Power Engineering (Russia)
 88. Nerpa Shipyard (Russia)

89. NM-Tekh (Russia)
90. Novorossiysk Shipyard JSC (Russia)
91. NPO Electronic Systems (Russia)
92. NPP Istok (Russia)
93. NTC Metrotek (Russia)
94. OAO GosNIIkhimanalit (Russia)
95. OAO Svetlovskoye Predpriyatiye Era (Russia)
96. OJSC TSRY (Russia)
97. OOO Elkomtek (Elkomtex) (Russia)
98. OOO Planar (Russia)
99. OOO Sertal (Russia)
100. Photon Pro LLC (Russia)
101. PJSC Zvezda (Russia)

102. Amur Shipbuilding Factory PJSC (Russia)
103. AO Center of Shipbuilding and Ship Repairing JSC (Russia)
104. AO Kronshtadt (Russia)
105. Avant Space LLC (Russia)
106. Production Association Strela (Russia)
107. Radioavtomatika (Russia)
108. Research Center Module (Russia)
109. Robin Trade Limited (Russia)
110. R.Ye. Alekseyev Central Design Bureau for Hydrofoil Ships (Russia)
111. Rubin Sever Design Bureau (Russia)
112. Russian Space Systems (Russia)
113. Rybinsk Shipyard Engineering (Russia)
114. Scientific Research Institute of Applied Chemistry (Russia)
115. Scientific-Research Institute of Electronics (Russia)

116. Scientific Research Institute of Hypersonic Systems (Russia)
117. Scientific Research Institute NII Submikron (Russia)
118. Sergey IONOV (Russia)
119. Serniya Engineering (Russia)
120. Severnaya Verf Shipbuilding Factory (Russia)
121. Ship Maintenance Center Zvezdochka (Russia)
122. State Governmental Scientific Testing Area of Aircraft Systems (GkNIPAS)(Russia)
123. State Machine Building Design Bureau Raduga Bereznaya (Russia)
124. State Scientific Center AO GNTs RF—FEI A.I. Leypunskiy Physico-Energy Institute (Russia)
125. State Scientific Research Institute of Machine Building Bakhirev (GosNII mash) (Russia)
126. Tomsk Microwave and Photonic Integrated Circuits and Modules Collective Design Center (Russia)
127. UAB Pella-Fjord (Russia)
128. United Shipbuilding Corporation JSC “35th Shipyard” (Russia)

129. United Shipbuilding Corporation JSC “Astrakhan Shipyard” (Russia)
130. United Shipbuilding Corporation JSC “Aysberg Central Design Bureau” (Russia)
131. United Shipbuilding Corporation JSC “Baltic Shipbuilding Factory” (Russia)
132. United Shipbuilding Corporation JSC “Krasnoye Sormovo Plant OJSC” (Russia)
133. United Shipbuilding Corporation JSC SC “Zvyozdochka” (Russia)
134. United Shipbuilding Corporation “Pribaltic Shipbuilding Factory Yantar” (Russia)
135. United Shipbuilding Corporation “Scientific Research Design Technological Bureau Onega” (Russia)
136. United Shipbuilding Corporation “Sredne-Nevisky Shipyard” (Russia)
137. Ural Scientific Research Institute for Composite Materials (Russia)
138. Urals Project Design Bureau Detal (Russia)
139. Vega Pilot Plant (Russia)
140. Vertikal LLC (Russia)
141. Vladislav Vladimirovich Fedorenko (Russia)

142. VTK Ltd (Russia)
143. Yaroslavl Shipbuilding Factory (Russia)
144. ZAO Elmiks-VS (Russia)
145. ZAO Sparta (Russia)
146. ZAO Svyaz Inzhiniring (Russia)
147. 46th TSNII Central Scientific Research Institute (Russia)
148. Alagir Resistor Factory (Russia)
149. All-Russian Research Institute of Optical and Physical Measurements (Russia)
150. All-Russian Scientific-Research Institute Etalon JSC (Russia)
151. Almaz JSC (Russia)
152. Arzam Scientific Production Enterprise Temp Avia (Russia)
153. Automated Procurement System for State Defense Orders, LLC (Russia)
154. Dolgoprudniy Design Bureau of Automatics (DDBA JSC) (Russia)

155. Electronic Computing Technology Scientific-Research Center JSC (Russia)
156. Electrosignal JSC (Russia)
157. Energiya JSC (Russia)
158. Engineering Center Moselectronproekt (Russia)
159. Etalon Scientific and Production Association (Russia)
160. Evgeny Krayushin (Russia)
161. Foreign Trade Association Mashpriborintorg (Russia)
162. Ineko LLC (Russia)
163. Informakustika JSC (Russia)
164. Institute of High Energy Physics (Russia)
165. Institute of Theoretical and Experimental Physics (Russia)
166. Inteltech PJSC (Russia)
167. ISE SO RAN Institute of High-Current Electronics (Russia)
168. Kaluga Scientific-Research Institute of Telemechanical Devices JSC (Russia)

169. Kulon Scientific-Research Institute JSC (Russia)
170. Lutch Design Office JSC (Russia)
171. Meteor Plant JSC (Russia)
172. Moscow Communications Research Institute JSC (Russia)
173. Moscow Order of the Red Banner of Labor Research Radio Engineering Institute JSC (Russia)
174. NPO Elektromechaniki JSC (Russia)
175. Omsk Production Union Irtysh JSC (Russia)
176. Omsk Scientific-Research Institute of Instrument Engineering JSC (Russia)
177. Optron, JSC (Russia)
178. Pella Shipyard OJSC (Russia)
179. Polyot Chelyabinsk Radio Plant JSC (Russia)
180. Pskov Distance Communications Equipment Plant (Russia)

181. Radiozavod JSC (Russia)
182. Razryad JSC (Russia)
183. Research Production Association Mars (Russia)
184. Ryazan Radio-Plant (Russia)
185. Scientific Production Center Vigstar JSC (Russia)
186. Scientific Production Enterprise "Radiosviaz" (Russia)
187. Scientific Research Institute Ferrite-Domen (Russia)
188. Scientific Research Institute of Communication Management Systems (Russia)
189. Scientific-Production Association and Scientific-Research Institute of Radio-Components (Russia)
190. Scientific-Production Enterprise "Kant" (Russia)
191. Scientific-Production Enterprise "Svyaz" (Russia)
192. Scientific-Production Enterprise Almaz JSC (Russia)
193. Scientific-Production Enterprise Salyut JSC (Russia)

194. Scientific-Production Enterprise Volna (Russia)
195. Scientific-Production Enterprise Vostok JSC (Russia)
196. Scientific-Research Institute “Argon” (Russia)
197. Scientific-Research Institute and Factory Platan (Russia)
198. Scientific-Research Institute of Automated Systems and Communications Complexes Neptune JSC (Russia)
199. Special Design and Technical Bureau for Relay Technology (Russia)
200. Special Design Bureau Salute JSC (Russia)
201. Tactical Missile Company, Joint Stock Company “Salute” (Russia)
202. Tactical Missile Company, Joint Stock Company “State Machine Building Design Bureau ‘Vympel’ By Name I.I.Toropov” (Russia)
203. Tactical Missile Company, Joint Stock Company “URALELEMENT” (Russia)
204. Tactical Missile Company, Joint Stock Company “Plant Dagdiesel” (Russia)

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205. Tactical Missile Company, Joint Stock Company “Scientific Research Institute of Marine Heat Engineering” (Russia)
 206. Tactical Missile Company, Joint Stock Company PA Strela (Russia)
 207. Tactical Missile Company, Joint Stock Company Plant Kulakov (Russia)
 208. Tactical Missile Company, Joint Stock Company Ravenstvo (Russia)
 209. Tactical Missile Company, Joint Stock Company Ravenstvo-service (Russia)
 210. Tactical Missile Company, Joint Stock Company Saratov Radio Instrument Plant (Russia)
 211. Tactical Missile Company, Joint Stock Company Severny Press (Russia)
 212. Tactical Missile Company, Joint-Stock Company “Research Center for Automated Design” (Russia)
 213. Tactical Missile Company, KB Mashinostroeniya (Russia)
 214. Tactical Missile Company, NPO Electromechanics (Russia)
 215. Tactical Missile Company, NPO Lightning (Russia)
 216. Tactical Missile Company, Petrovsky Electromechanical Plant “Molot” (Russia)

217. Tactical Missile Company, PJSC “MBDB ‘ISKRA’” (Russia)
218. Tactical Missile Company, PJSC ANPP Temp Avia (Russia)
219. Tactical Missile Company, Raduga Design Bureau (Russia)
220. Tactical Missile Corporation, “Central Design Bureau of Automation” (Russia)
221. Tactical Missile Corporation, 711 Aircraft Repair Plant (Russia)
222. Tactical Missile Corporation, AO GNPP “Region” (Russia)
223. Tactical Missile Corporation, AO TMKB “Soyuz” (Russia)
224. Tactical Missile Corporation, Azov Optical and Mechanical Plant (Russia)
225. Tactical Missile Corporation, Concern “MPO – Gidropribor” (Russia)
226. Tactical Missile Corporation, Joint Stock Company “KRASNY GIDROPRESS” (Russia)
227. Tactical Missile Corporation, Joint Stock Company Avangard (Russia)
228. Tactical Missile Corporation, Joint Stock Company Concern Granit-Electron (Russia)

229. Tactical Missile Corporation, Joint Stock Company Elektrotyaga (Russia)
230. Tactical Missile Corporation, Joint Stock Company GosNIIMash (Russia)
231. Tactical Missile Corporation, RKB Globus (Russia)
232. Tactical Missile Corporation, Smolensk Aviation Plant (Russia)
233. Tactical Missile Corporation, TRV Engineering (Russia)
234. Tactical Missile Corporation, Ural Design Bureau "Detal" (Russia)
235. Tactical Missile Corporation, Zvezda-Strela Limited Liability Company (Russia)
236. Tambov Plant (TZ) "October" (Russia)
237. United Shipbuilding Corporation "Production Association Northern Machine Building Enterprise" (Russia)
238. United Shipbuilding Corporation "5th Shipyard" (Russia)
239. Federal Center for Dual-Use Technology (FTsDT) Soyuz (Russia)

240. Turayev Machine Building Design Bureau Soyuz (Russia)
241. Zhukovskiy Central Aerohydrodynamics Institute (TsAGI) (Russia)
242. Rosatomflot (Russia)
243. Lyulki Experimental-Design Bureau (Russia)
244. Lyulki Science and Technology Center (Russia)
245. AO Aviaagregat (Russia)
246. Central Aerohydrodynamic Institute (TsAGI) (Russia)
247. Closed Joint Stock Company Turborus (Turborus) (Russia)
248. Federal Autonomous Institution Central Institute of Engine-Building N.A. P.I. Baranov;
Central Institute of Aviation Motors (CIAM) (Russia)
249. Federal State Budgetary Institution National Research Center Institute N.A. N.E.
Zhukovsky (Zhukovsky National Research Institute) (Russia)
250. Federal State Unitary Enterprise “State Scientific-Research Institute for Aviation Systems”
(GosNIIAS) (Russia)

251. Joint Stock Company 123 Aviation Repair Plant (123 ARZ) (Russia)
252. Joint Stock Company 218 Aviation Repair Plant (218 ARZ) (Russia)
253. Joint Stock Company 360 Aviation Repair Plant (360 ARZ) (Russia)
254. Joint Stock Company 514 Aviation Repair Plant (514 ARZ) (Russia)
255. Joint Stock Company 766 UPTK (Russia)
256. Joint Stock Company Aramil Aviation Repair Plant (AARZ) (Russia)
257. Joint Stock Company Aviaremонт (Aviaremонт) (Russia)
258. Joint Stock Company Flight Research Institute N.A. M.M. Gromov (FRI Gromov) (Russia)
259. Joint Stock Company Metallist Samara (Metallist Samara) (Russia)
260. Joint Stock Company Moscow Machine-Building Enterprise named after V. V. Chernyshev (MMP V.V. Chernyshev) (Russia)
261. JSC NII Steel (Russia)
262. Joint Stock Company Remdizel (Russia)

263. Joint Stock Company Special Industrial and Technical Base Zvezdochka (SPTB Zvezdochka) (Russia)
264. Joint Stock Company STAR (Russia)
265. Joint Stock Company Votkinsk Machine Building Plant (Russia)
266. Joint Stock Company Yaroslav Radio Factory (Russia)
267. Joint Stock Company Zlatoustovsky Machine Building Plant (JSC Zlatmash)(Russia)
268. Limited Liability Company Center for Specialized Production OSK Propulsion (OSK Propulsion) (Russia)
269. Lytkarino Machine-Building Plant (Russia)
270. Moscow Aviation Institute (Russia)
271. Moscow Institute of Thermal Technology (Russia)
272. Omsk Motor-Manufacturing Design Bureau (Russia)
273. Open Joint Stock Company 170 Flight Support Equipment Repair Plant (170 RZ SOP) (Russia)
274. Open Joint Stock Company 20 Aviation Repair Plant (20 ARZ) (Russia)

275. Open Joint Stock Company 275 Aviation Repair Plant (275 ARZ) (Russia)
276. Open Joint Stock Company 308 Aviation Repair Plant (308 ARZ) (Russia)
277. Open Joint Stock Company 32 Repair Plant of Flight Support Equipment (32 RZ SOP) (Russia)
278. Open Joint Stock Company 322 Aviation Repair Plant (322 ARZ) (Russia)
279. Open Joint Stock Company 325 Aviation Repair Plant (325 ARZ) (Russia)
280. Open Joint Stock Company 680 Aircraft Repair Plant (680 ARZ) (Russia)
281. Open Joint Stock Company 720 Special Flight Support Equipment Repair Plant (720 RZ SOP) (Russia)
282. Open Joint Stock Company Volgograd Radio-Technical Equipment Plant (VZ RTO) (Russia)
283. Public Joint Stock Company Agregat (PJSC Agregat) (Russia)
284. Salute Gas Turbine Research and Production Center (Russia)
285. Scientific-Production Association Vint of Zvezdochka Shipyard (SPU Vint) (Russia)

286. Scientific Research Institute of Applied Acoustics (NIIPA) (Russia)
287. Siberian Scientific-Research Institute of Aviation N.A. S.A. Chaplygin (SibNIA) (Russia)
288. Software Research Institute (Russia)
289. Subsidiary Sevastopol Naval Plant of Zvezdochka Shipyard (Sevastopol Naval Plant) (City of Sevastopol, illegally annexed by Russia)
290. Tula Arms Plant (Russia)
291. Russian Institute of Radio Navigation and Time (Russia)
292. Federal Technical Regulation and Metrology Agency (Rosstandart) (Russia)
293. Federal State Budgetary Institution of Science P.I. K.A. Valiev RAS of the Ministry of Science and Higher Education of Russia (FTIAN) (Russia)
294. Federal State Unitary Enterprise All-Russian Research Institute of Physical, Technical and Radio Engineering Measurements (VNIIFTRI) (Russia)
295. Institute of Physics Named After P.N. Lebedev of the Russian Academy of Sciences (LPI) (Russia)

296. The Institute of Solid-State Physics of the Russian Academy of Sciences (ISSP) (Russia)
297. Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences (IPP SB RAS) (Russia)
298. UEC-Perm Engines, JSC (Russia)
299. Ural Works of Civil Aviation, JSC (Russia)
300. Central Design Bureau for Marine Engineering “Rubin”, JSC (Russia)
301. “Aeroprivor-Voskhod”, JSC (Russia)
302. Aerospace Equipment Corporation, JSC (Russia)
303. Central Research Institute of Automation and Hydraulics (CNIAG), JSC (Russia)
304. Aerospace Systems Design Bureau, JSC (Russia)
305. Afanasyev Technomac, JSC (Russia)
306. Ak Bars Shipbuilding Corporation, CJSC (Russia)
307. AGAT, Gavrilov-Yaminskiy Machine-Building Plant, JSC (Russia)
308. Almaz Central Marine Design Bureau, JSC (Russia)

309. Joint Stock Company Eleron (Russia)
310. AO Rubin (Russia)
311. Branch of AO Company Sukhoi Yuri Gagarin Komsomolsk-on-Amur Aircraft Plant (Russia)
312. Branch of PAO II – Aviastar (Russia)
313. Branch of RSK MiG Nizhny Novgorod Aircraft-Construction Plant Sokol (Russia)
314. Chkalov Novosibirsk Aviation Plant (Russia)
315. Joint Stock Company All-Russian Scientific-Research Institute Gradient (Russia)
316. Joint Stock Company Almatyevsk Radiopribor Plant (JSC AZRP) (Russia)
317. Joint Stock Company Experimental-Design Bureau Elektroavtomatika in the name of P.A. Efimov (Russia)
318. Joint Stock Company Industrial Controls Design Bureau (Russia)
319. Joint Stock Company Kazan Instrument-Engineering and Design Bureau (Russia)
320. Joint Stock Company Microtechnology (Russia)

321. Phasotron Scientific-Research Institute of Radio-Engineering (Russia)
322. Joint Stock Company Radiopribor (Russia)
323. Joint Stock Company Ramensk Instrument-Engineering Bureau (Russia)
324. Joint Stock Company Research and Production Center SAPSAN (Russia)
325. Joint Stock Company Rychag (Russia)
326. Joint Stock Company Scientific Production Enterprise Izmeritel (Russia)
327. Joint Stock Company Scientific-Production Union for Radioelectronics named after V.I. Shimko (Russia)
328. Joint Stock Company Taganrog Communications Scientific-Research Institute (Russia)
329. Joint Stock Company Urals Instrument-Engineering Plant (Russia)
330. Joint Stock Company Vzlet Engineering Testing Support (Russia)
331. Joint Stock Company Zhiguli Radio Plant (Russia)
332. Joint Stock Company Bryansk Electromechanical Plant (Russia)

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333. Public Joint Stock Company Moscow Institute of Electro-Mechanics and Automation (Russia)
 334. Public Joint Stock Company Stavropol Radio Plant Signal (Russia)
 335. Public Joint Stock Company Techpribor (Russia)
 336. Joint Stock Company Ramensky Instrument-Engineering Plant (Russia)
 337. V.V. Tarasov Avia Avtomatika (Russia)
 338. Design Bureau of Chemical Machine Building KBKhM (Russia)
 339. Far Eastern Shipbuilding and Ship Repair Center (Russia)
 340. Ilyushin Aviation Complex Branch: Myasishcheva Experimental Mechanical Engineering Plant (Russia)
 341. Institute of Marine Technology Problems Far East Branch Russian Academy of Sciences (Russia)
 342. Irkutsk Aviation Plant (Russia)
 343. Joint Stock Company Aerocomposit Ulyanovsk Plant (Russia)

344. Joint Stock Company Experimental Design Bureau named after A.S. Yakovlev (Russia)
345. Joint Stock Company Federal Research and Production Center Altai (Russia)
346. Joint Stock Company “Head Special Design Bureau Prozhektor (Russia)
347. Joint Stock Company Ilyushin Aviation Complex (Russia)
348. Joint Stock Company Lazurit Central Design Bureau (Russia)
349. Joint Stock Company Research and Development Enterprise Protek (Russia)
350. Joint Stock Company SPMDB Malachite (Russia)
351. Joint Stock Company Votkinsky Zavod (Russia)
352. Kalyazinsky Machine Building Factory – Branch of RSK MiG (Russia)
353. Main Directorate of Deep-Sea Research of the Ministry of Defense of the Russian Federation (Russia)
354. NPP Start (Russia)
355. OAO Radiofizika (Russia)
356. P.A. Voronin Likhovitsk Aviation Plant, branch of RSK MiG (Russia)
357. Public Joint Stock Company Bryansk Special Design Bureau (Russia)

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358. Public Joint Stock Company Voronezh Joint Stock Aircraft Company (Russia)
 359. Radio Technical Institute named after A. L. Mints (Russia)
 360. Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics (Russia)
 361. Shvabe JSC (Russia)
 362. Special Technological Center LLC (Russia)
 363. St. Petersburg Marine Bureau of Machine Building Malakhit (Russia)
 364. St. Petersburg Naval Design Bureau Almaz (Russia)
 365. St. Petersburg Shipbuilding Institution Krylov 45 (Russia)
 366. Strategic Control Posts Corporation (Russia)
 367. V.A. Trapeznikov Institute of Control Sciences of Russian Academy of Sciences (Russia)
 368. Vladimir Design Bureau for Radio Communications OJSC (Russia)
 369. Voentelcom JSC (Russia)

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370. A.A. Kharkevich Institute for Information Transmission Problems (IITP), Russian Academy of Sciences (RAS) (Russia)
371. Ak Bars Holding (Russia)
372. Special Research Bureau for Automation of Marine Researches Far East Branch Russian Academy of Sciences (Russia)
373. Systems of Biological Synthesis LLC (Russia)
374. Borisfen, JSC (Russia)
375. Barnaul cartridge plant, JSC (Russia)
376. Concern Aurora Scientific and Production Association, JSC (Russia)
377. Bryansk Automobile Plant, JSC (Russia)
378. Burevestnik Central Research Institute, JSC (Russia)
379. Research Institute of Space Instrumentation, JSC (Russia)
380. Arsenal Machine-building plant, OJSC (Russia)
381. Central Design Bureau of Automatics, JSC (Russia)
382. Zelenodolsk Design Bureau, JSC (Russia)

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- 383. Zavod Elecon, JSC (Russia)
 - 384. VMP "Avitec", JSC (Russia)
 - 385. JSC V. Tikhomirov Scientific Research Institute of Instrument Design (Russia)
 - 386. Tulatochmash, JSC (Russia)
 - 387. PJSC "I.S. Brook" INEUM (Russia)
 - 388. SPE "Krasnoznamens", JSC (Russia)
 - 389. SPA Pribor named after S.S. Golembiovsky, SC (Russia)
 - 390. SPA "Impuls", JSC (Russia)
 - 391. RusBITech (Russia)
 - 392. ROTOR 43 (Russia)
 - 393. Rostov optical and mechanical plant, PJSC (Russia)
 - 394. RATEP, JSC (Russia)
 - 395. PLAZ (Russia)
 - 396. OKB "Technika" (Russia)
 - 397. Ocean Chips (Russia)

398. Nudelman Precision Engineering Design Bureau (Russia)
399. Angstrom JSC (Russia)
400. NPCAP (Russia)
401. Novosibirsk Plant of Artificial Fibre (Russia)
402. Novosibirsk Cartridge Plant, JSC (SIBFIRE) (Russia)
403. Novator DB (Russia)
404. NIMI named after V.V. BAHIREV, JSC (Russia)
405. NII Stali JSC (Russia)
406. Nevskoe Design Bureau, JSC (Russia)
407. Neva Electronica JSC (Russia)
408. ENICS (Russia)
409. The JSC Makeyev Design Bureau (Russia)
410. KURGANPRIBOR, JSC (Russia)
411. Ural Optical-Mechanical Plant E.S. Yalamova, JSC (Russia)

412. Ramenskoye Engineering Design Office, JSC (Russia)
413. Vologda Optical and Mechanical Plant, JSC (Russia)
414. Videoglaz Project (Russia)
415. Innovative Underwater Technologies, LLC (Russia)
416. Ulyanovsk Mechanical Plant (Russia)
417. All-Russian Research Institute of Radio Engineering (Russia)
418. PJSC “Scientific and Production Association ‘Almaz’ named after Academician A.A. Raspletin” (Russia)
419. Concern OJSC – KIZLYAR ELECTRO-MECHANICAL PLANT (Russia)
420. Concern Oceanpribor, JSC (Russia)
421. JSC Zelenogradsky Nanotechnology Center (Russia)
422. JSC Elektronstandart Pribor (Russia)
423. JSC “Urals Optical-Mechanical Plant named after Mr E.S Yalamov” (Russia)
424. Ramenskoye Instrument-Making Design Bureau, JSC (Russia)

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425. Special Technology Centre Limited Liability Company (Russia)
 426. Vest Ost Limited Liability (Russia)
 427. Trade-Component LLC (Russia)
 428. Radiant Electronic Components JSC (Russia)
 429. JSC ICC Milandr (Russia)
 430. SMT iLogic LLC (Russia)
 431. Device Consulting (Russia)
 432. Concern Radio-Electronic Technologies (Russia)
 433. Technodinamika, JSC (Russia)
 434. OOO "UNITEK" (Russia)
 435. Closed Joint Stock Company TPK LINKOS (Russia)
 436. Closed Joint Stock Company TPK LINKOS, SUBDIVISION IN ASTRAKHAN (Russia)
 437. Design and Manufacturing of Aircraft Engines (DAMA) (Iran)
 438. Islamic Revolutionary Guard Corps Aerospace Force (Iran)

439. Islamic Revolutionary Guard Corps Research and Self-Sufficiency Jihad Organization (IRGC SSJO) (Iran)
440. Oje Parvaz Mado Nafar Company (Mado) (Iran)
441. Paravar Pars Company (Iran)
442. Qods Aviation Industries (Iran)
443. Shahed Aviation Industries (Iran)
444. Concern Morinformsystem–Agat (Russia)
445. AO Papilon (Russia)
446. IT-Papillon OOO (Russia)
447. OOO Adis (Russia)
448. Papilon Systems Limited Liability Company (Russia)
449. Advanced Research Foundation (Russia)
450. Federal Service for Military-Technical Cooperation (Russia)
451. Federal State Budgetary Scientific Institution Research and Production Complex Technology Center (Russia)

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452. Federal State Institution Federal Scientific Center Scientific Research Institute for System Analysis of the Russian Academy of Sciences (Russia)
 453. Joint Stock Company All-Russian Research Institute Signal (Russia)
 454. Joint Stock Company Center of Research and Technology Services Dinamika (Russia)
 455. Joint Stock Company Concern Avtomatika (Russia)
 456. Joint Stock Company Corporation Moscow Institute of Heat Technology (Russia)
 457. Joint Stock Company Design Center Soyuz (Russia)
 458. Joint Stock Company Design Technology Center Elektronika (Russia)
 459. Joint Stock Company Institute for Scientific Research Microelectronic Equipment Progress (Russia)
 460. Joint Stock Company Machine-Building Engineering Office Fakel Named After Akademika P.D. Grushina (Russia)
 461. Joint Stock Company Moscow Institute of Electromechanics and Automatics (Russia)

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462. Joint Stock Company North Western Regional Center of Almaz Antey Concern Obukhovsky Plant (Russia)
463. Joint Stock Company Obninsk Research and Production Enterprise Technologiya Named After A.G. Romashin (Russia)
464. Joint Stock Company Penza Electrotechnical Research Institute (Russia)
465. Joint Stock Company Production Association Sever (Russia)
466. Joint Stock Company Research Center ELINS (Russia)
467. Joint Stock Company Research and Production Association of Measuring Equipment (Russia)
468. Joint Stock Company Research and Production Enterprise Radar MMS (Russia)
469. Joint Stock Company Research and Production Enterprise Sapfir (Russia)
470. Joint Stock Company RT-Tekhpriemka (Russia)
471. Joint Stock Company Russian Research Institute Electronstandart (Russia)
472. Joint Stock Company Ryazan Plant of Metal Ceramic Instruments (Russia)

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473. Joint Stock Company Scientific Production Enterprise Digital Solutions (Russia)
 474. Joint Stock Company Scientific Production Enterprise Kontakt (Russia)
 475. Joint Stock Company Scientific Production Enterprise Topaz (Russia)
 476. Joint Stock Company Scientific Research Institute Giricond (Russia)
 477. Joint Stock Company Scientific Research Institute of Computer Engineering NII SVT (Russia)
 478. Joint Stock Company Scientific Research Institute of Electrical Carbon Products (Russia)
 479. Joint Stock Company Scientific Research Institute of Electronic and Mechanical Devices (Russia)
 480. Joint Stock Company Scientific Research Institute of Electronic Engineering Materials (Russia)
 481. Joint Stock Company Scientific Research Institute of Gas Discharge Devices Plasma (Russia)
 482. Joint Stock Company Scientific Research Institute of Industrial Television Rastr (Russia)

483. Joint Stock Company Scientific Research Institute of Precision Mechanical Engineering (Russia)
484. Joint Stock Company Special Design Bureau of Computer Engineering (Russia)
485. Joint Stock Company Special Design Bureau of Control Means (Russia)
486. Joint Stock Company Special Design Bureau Turbina (Russia)
487. Joint Stock Company State Scientific Research Institute Kristall (Russia)
488. Joint Stock Company Svetlana Semiconductors (Russia)
489. Joint Stock Company Tekhnodinamika (Russia)
490. Joint Stock Company Voronezh Semiconductor Devices Factory Assembly (Russia)
491. KAMAZ Publicly Traded Company (Russia)
492. Keldysh Institute of Applied Mathematics of the Russian Academy of Sciences (Russia)
493. Limited Liability Company Research and Production Association Radiovolna (Russia)
494. Limited Liability Company RSBGroup (Russia)
495. Mitishinskiy Scientific Research Institute of Radio Measuring Instruments (Russia)

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496. Open Joint Stock Company Khabarovsk Radio Engineering Plant (Russia)
 497. Open Joint Stock Company Mariyskiy Machine-Building Plant (Russia)
 498. Open Joint Stock Company Scientific and Production Enterprise Pulsar (Russia)
 499. Public Joint Stock Company Megafon (Russia)
 500. Public Joint Stock Company Tutaev Motor Plant (Russia)
 501. Public Joint Stock Company Vypel Interstate Corporation (Russia)
 502. RT-Inform Limited Liability Company (Russia)
 503. Skolkovo Foundation (Russia)
 504. Skolkovo Institute of Science and Technology (Russia)
 505. State Flight Testing Center Named After V.P. Chkalov (Russia)
 506. Joint Stock Company Research and Production Association Named After S.A. Lavochkina (Russia)
 507. VMK Limited Liability Company (Russia)

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- 508. TESTKOMPLEKT LLC (Russia)
 - 509. Radiopriborsnab LLC (Russia)
 - 510. CJSC Radiotekhhkomplekt (Russia)
 - 511. Asia Pacific Links Ltd. (Hong Kong, China)
 - 512. Tordan Industry Limited (Hong Kong, China)
 - 513. Alpha Trading Investments Limited (Hong Kong, China)
 - 514. JSC NICEVT (Russia)
 - 515. A-CONTRAKT (Russia)
 - 516. JCS Izhevsk Motozavod Axion-holding (Russia)

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517. Gorky Plant of Communication Equipment (GZAS) (Russia)
 518. Nizhny Novgorod Research Institute of Radio Engineering (NNIIRT) (Russia)
 519. Nizhegorodskiy televizionnyy zavod (NITEL JSC) (Russia)
 520. LLC Rezonit (Russia)
 521. ZAO Promelektronika (Russia)
 522. TD Promelektronika LLC (Russia)
 523. Tako LLC (Armenia)
 524. Art Logistics LLC (Russia)
 525. GFK Logistics LLC (Russia)
 526. Novastream Limited (Russia)
 527. SKS Elektron Broker (Russia)
 528. Trust Logistics (Russia)
 529. Trust Logistics LLC (Russia)

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- 530. Alfa Beta Creative LLC (Uzbekistan)
 - 531. GFK Logistics Asia LLC (Uzbekistan)
 - 532. I Jet Global DMCC (Syria)
 - 533. I Jet Global DMCC (United Arab Emirates)
 - 534. Success Aviation Services FZC (United Arab Emirates)
 - 535. LLC CST (Zala Aero Group) (Russia)
 - 536. Iran Aircraft Manufacturing Industries Corporation (HESA) (Iran)
 - 537. Closed Joint Stock Company Special Design Bureau (Russia)
 - 538. Federal State Enterprise Kazan State Gunpowder Plant (Russia)
 - 539. Federal State Unitary Enterprise Central Scientific Research Institute of Chemistry and Mechanics (Russia)
 - 540. Federal State Unitary Enterprise Rostov-On-Don Research Institute of Radio Communications (Russia)

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541. Informtest Firm Limited Liability Company (Russia)
 542. Joint Stock Company 150 Aircraft Repair Plant (Russia)
 543. Joint Stock Company 810 Aircraft Repair Plant (Russia)
 544. Joint Stock Company Arzamas Instrument-Making Plant named after P.I. Plandin (Russia)
 545. Joint Stock Company Concern Central Institute for Scientific Research Elektropribor (Russia)
 546. Joint Stock Company Dux (Russia)
 547. Joint Stock Company Eastern Shipyard (Russia)
 548. Joint Stock Company Information Satellite Systems Named After Academician M.F. Reshetnev (Russia)
 549. Joint Stock Company Izhevsk Electromechanical Plant Kupol (Russia)
 550. Joint Stock Company Kazan Optical-Mechanical Plant (Russia)
 551. Joint Stock Company Khabarovsk Shipbuilding Yard (Russia)

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552. Joint Stock Company Machine Building Company Vityaz (Russia)
 553. Joint Stock Company Management Company Radiostandard (Russia)
 554. Joint Stock Company Marine Instrument Engineering Corporation (Russia)
 555. Joint Stock Company NII Gidrosvyazi Shtil (Russia)
 556. Joint Stock Company Nizhny Novgorod Plant of the 70th Anniversary of Victory (Russia)
 557. Joint Stock Company Northern Production Association Arktika (Russia)
 558. Joint Stock Company Perm Machine Building Plant (Russia)
 559. Joint Stock Company Production Complex Akhtuba (Russia)
 560. Joint Stock Company Project Design Bureau RIO (Russia)
 561. Joint Stock Company Scientific Production Association Orion (Russia)
 562. Joint Stock Company Scientific Production Association Volna Plant (Russia)
 563. Joint Stock Company Scientific Production Center of Automatics and Instrument Building Named After Academician N.A. Pilyugin (Russia)

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564. Joint Stock Company Scientific Production Concern Tekhmash (Russia)
 565. Joint Stock Company Scientific Research Engineering Institute (Russia)
 566. Joint Stock Company Scientific Research Institute of Computing Complexes Named After M.A. Kartsev (Russia)
 567. Joint Stock Company Scientific Technical Institute Radiosvyaz (Russia)
 568. Joint Stock Company Taganrog Plant Priboy (Russia)
 569. Joint Stock Company Tula Cartridge Works (Russia)
 570. Joint Stock Company Tula Machine-Building Plant (Russia)
 571. Joint Stock Company Ulan-Ude Aviation Plant (Russia)
 572. Joint Stock Company Ulyanovsk Cartridge Works (Russia)
 573. Joint Stock Company Ural Automotive Plant (Russia)
 574. Joint Stock Company Vodtranspribor (Russia)
 575. Joint Stock Company Zavolzhskiy Plant of Caterpillar Tractors (Russia)

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- 576. Joint Stock Company Zelenodolsk Plant Named After A.M. Gorky (Russia)
 - 577. Machine Building Group Limited Liability Company (Russia)
 - 578. Military Industrial Company Limited Liability Company (Russia)
 - 579. Open Joint Stock Company Degtyaryov Plant (Russia)
 - 580. Promtekhlogiya Limited Liability Company (Russia)
 - 581. Public Joint Stock Company Kurganmashzavod (Russia)
 - 582. Public Joint Stock Company Motovilikha Plants (Russia)
 - 583. Public Joint Stock Company Proletarsky Plant (Russia)
 - 584. Public Joint Stock Company Rostvertol (Russia)
 - 585. Scientific Production Association Izhevsk Unmanned Systems Limited Liability Company (Russia)

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586. Scientific Production Enterprise Prima Limited Liability Company (Russia)
 587. United Machine Building Group Limited Liability Company (Russia)
 588. Volgograd Machine Building Company Limited Liability Company (Russia)
 589. VXI-Systems Limited Liability Company (Russia)
 590. LLC Yadro (Russia)
 591. Perm Powder Plant (Russia)
 592. RPA Kazan Machine Building Plant (Russia)
 593. Proton JSC (Russia)'.

ANNEX II

Annex VII to Regulation (EU) No 833/2014 is replaced by the following:

‘Annex VII

List of goods and technology referred to in Articles 2a(1) and 2b(1)

Part A

General Notes, Acronyms and Abbreviations, and Definitions in Annex I to Regulation (EU) 2021/821 apply to this Annex, with the exception of “Part I – General Notes, Acronyms and Abbreviations, and Definitions, General Notes to Annex I, point 2”.

Definitions of Terms used in the Common Military List (CML) of the European Union (2020/C 85/01) apply to this Annex.

Without prejudice to Article 12 of this Regulation, non-controlled items containing one or more components listed in this Annex are not subject to the controls under Articles 2a and 2b of this Regulation.

Category I – Electronics

X.A.I.01 Electronic devices and components.

- a. “Microprocessor microcircuits”, “microcomputer microcircuits”, and microcontroller microcircuits having any of the following:
 1. A performance speed of 5 GigaFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more;
 2. A clock frequency rate exceeding 25 MHz; or
 3. More than one data or instruction bus or serial communication port that provides a direct external interconnection between parallel “microprocessor microcircuits” with a transfer rate of 2,5 Mbyte/s;
- b. Storage integrated circuits, as follows:
 1. Electrically erasable programmable read-only memories (EEPROMs) with a storage capacity;
 - a. Exceeding 16 Mbits per package for flash memory types; or

- b. Exceeding either of the following limits for all other EEPROM types:
 - 1. Exceeding 1 Mbit per package; or
 - 2. Exceeding 256 kbit per package and a maximum access time of less than 80 ns;
- 2. Static random access memories (SRAMs) with a storage capacity:
 - a. Exceeding 1 Mbit per package; or
 - b. Exceeding 256 kbit per package and a maximum access time of less than 25 ns;
- c. Analogue-to-digital converters having any of the following:
 - 1. A resolution of 8 bit or more, but less than 12 bit, with an output rate greater than 200 Mega Samples Per Second (MSPS);
 - 2. A resolution of 12 bit with an output rate greater than 105 Mega Samples per Second (MSPS);

3. A resolution of more than 12 bit but equal to or less than 14 bit with an output rate greater than 10 Mega Samples per Second (MSPS); or
 4. A resolution of more than 14 bit with an output rate greater than 2,5 Mega Samples Per Second (MSPS);
- d. Field programmable logic devices having a maximum number of single-ended digital input/outputs between 200 and 700;
 - e. Fast Fourier Transform (FFT) processors having a rated execution time for a 1 024 point complex FFT of less than 1 ms;
 - f. Custom integrated circuits for which the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:
 1. More than 144 terminals; or
 2. A typical basic propagation delay time of less than 0,4 ns;

- g. Traveling-wave “vacuum electronic devices”, pulsed or continuous wave, as follows:
1. Coupled cavity devices, or derivatives thereof;
 2. Devices based on helix, folded waveguide, or serpentine waveguide circuits, or derivatives thereof, having any of the following:
 - a. An “instantaneous bandwidth” of half an octave or more and average power (expressed in kW) times frequency (expressed in GHz) of more than 0,2; or
 - b. An “instantaneous bandwidth” of less than half an octave; and average power (expressed in kW) times frequency (expressed in GHz) of more than 0,4;
- h. Flexible waveguides designed for use at frequencies exceeding 40 GHz;

- i. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices, having either of the following:
1. A carrier frequency exceeding 1 GHz; or
 2. A carrier frequency of 1 GHz or less; and
 - a. A “frequency side-lobe rejection” exceeding 55 dB;
 - b. A product of the maximum delay time and bandwidth (time in μs and bandwidth in MHz) of more than 100; or
 - c. A dispersive delay of more than 10 μs ;
- Technical Note: For the purpose of X.A.I.001.i “Frequency side-lobe rejection” is the maximum rejection value specified in data sheet.*
- j. “Cells” as follows:
1. “Primary cells” having an “energy density” of 550 Wh/kg or less at 293 K (20 °C);

2. “Secondary cells” having an “energy density” of 350 Wh/kg or less at 293 K (20 °C);

Note: X.A.I.001.j does not control batteries, including single cell batteries.

Technical Notes:

1. *For the purpose of X.A.I.001.j energy density (Wh/kg) is calculated from the nominal voltage multiplied by the nominal capacity in ampere-hours (Ah) divided by the mass in kilograms. If the nominal capacity is not stated, energy density is calculated from the nominal voltage squared then multiplied by the discharge duration in hours divided by the discharge load in Ohms and the mass in kilograms.*
2. *For the purpose of X.A.I.001.j, a “cell” is defined as an electrochemical device, which has positive and negative electrodes, and electrolyte, and is a source of electrical energy. It is the basic building block of a battery.*
3. *For the purpose of X.A.I.001.j.1, a “primary cell” is a “cell” that is not designed to be charged by any other source.*
4. *For the purpose of X.A.I.001.j.2, a “secondary cell” is a “cell” that is designed to be charged by an external electrical source.*

- k. “Superconductive” electromagnets or solenoids specially designed to be fully charged or discharged in less than one minute, having all of the following:

Note: X.A.I.001.k does not control “superconductive” electromagnets or solenoids designed for Magnetic Resonance Imaging (MRI) medical equipment.

1. Maximum energy delivered during the discharge divided by the duration of the discharge of more than 500 kJ per minute;
 2. Inner diameter of the current carrying windings of more than 250 mm; and
 3. Rated for a magnetic induction of more than 8T or “overall current density” in the winding of more than 300 A/mm²;
- l. Circuits or systems for electromagnetic energy storage, containing components manufactured from “superconductive” materials specially designed for operation at temperatures below the “critical temperature” of at least one of their “superconductive” constituents, having all of the following:
1. Resonant operating frequencies exceeding 1 MHz;
 2. A stored energy density of 1 MJ/m³ or more; and
 3. A discharge time of less than 1 ms;

- m. Hydrogen/hydrogen-isotope thyratrons of ceramic-metal construction and rate for a peak current of 500 A or more;
- n. Ceramic frequency filters;
- o. Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays, which are “space qualified” and not controlled by 3A001.e.4¹;
- p. Cermet trimmers.

X.A.I.02 General purpose "electronic assemblies", modules and equipment.

- a. Electronic test equipment, other than those specified in the CML or in Regulation (EU) 2021/821;
- b. Digital instrumentation magnetic tape data recorders having any of the following characteristics;
 - 1. A maximum digital interface transfer rate exceeding 60 Mbit/s and employing helical scan techniques;
 - 2. A maximum digital interface transfer rate exceeding 120 Mbit/s and employing fixed head techniques; or
 - 3. “Space qualified”;

¹ Ref. Annex I to Regulation (EU) 2021/821

- c. Equipment, with a maximum digital interface transfer rate exceeding 60 Mbit/s, designed to convert digital video magnetic tape recorders for use as digital instrumentation data recorders;
- d. Non-modular analogue oscilloscopes having a bandwidth of 1 GHz or greater;
- e. Modular analogue oscilloscope systems having either of the following characteristics:
 - 1. A mainframe with a bandwidth of 1 GHz or greater; or
 - 2. Plug-in modules with an individual bandwidth of 4 GHz or greater;
- f. Analogue sampling oscilloscopes for the analysis of recurring phenomena with an effective bandwidth greater than 4 GHz;
- g. Digital oscilloscopes and transient recorders, using analogue-to-digital conversion techniques, capable of storing transients by sequentially sampling single-shot inputs at successive intervals of less than 1 ns (greater than 1 Giga Samples per Second (GSPS)), digitizing to 8 bits or greater resolution and storing 256 or more samples.

Note: X.A.I.002 controls the following specially designed components for analogue oscilloscopes:

- 1. Plug-in units;*
- 2. External amplifiers;*
- 3. Pre-amplifiers;*
- 4. Sampling devices;*
- 5. Cathode ray tubes.*

X.A.I.03 Specific processing equipment, other than those specified in the CML or in Regulation (EU) 2021/821, as follows:

- a. Frequency changers and their specially designed components, other than those specified in the CML or in Regulation (EU) 2021/821;
- b. Mass spectrometers, other than those specified in the CML or in Regulation (EU) 2021/821;
- c. All flash X-ray machines, or components of pulsed power systems designed thereof, including Marx generators, high power pulse shaping networks, high voltage capacitors, and triggers;

- d. Pulse amplifiers, other than those specified in the CML or in Regulation (EU) 2021/821;
- e. Electronic equipment for time delay generation or time interval measurement, as follows:
 - 1. Digital time delay generators with a resolution of 50 ns or less over time intervals of 1 μ s or greater; or
 - 2. Multi-channel (three or more) or modular time interval meter and chronometry equipment with resolution of 50 ns or less over time intervals of 1 μ s or greater;
- f. Chromatography and spectrometry analytical instruments.

X.B.I.01 Equipment for the manufacture of electronic components or materials, as follows and specially designed components and accessories therefor:

- a. Equipment specially designed for the manufacture of electron tubes, optical elements and specially designed components therefor controlled by 3A001¹ or X.A.I.001;

¹ Ref. Annex I to Regulation (EU) 2021/821

- b. Equipment specially designed for the manufacture of semiconductor devices, integrated circuits and “electronic assemblies”, as follows, and systems incorporating or having the characteristics of such equipment:

Note: X.B.I.001.b. also controls equipment used or modified for use in the manufacture of other devices, such as imaging devices, electro-optical devices, acoustic-wave devices.

1. Equipment for the processing of materials for the manufacture of devices and components as specified in the heading of X.B.I.001.b, as follows:

Note: X.B.I.001 does not control quartz furnace tubes, furnace liners, paddles, boats (except specially designed caged boats), bubblers, cassettes or crucibles specially designed for the processing equipment controlled by X.B.I.001.b.1.

- a. Equipment for producing polycrystalline silicon and materials controlled by 3C001¹;
- b. Equipment specially designed for purifying or processing III/V and II/VI semiconductor materials controlled by 3C001, 3C002, 3C003, 3C004, or 3C005¹ except crystal pullers, for which see X.B.I.001.b.1.c below;

¹ Ref. Annex I to Regulation (EU) 2021/821

- c. Crystal pullers and furnaces, as follows:

Note: X.B.I.001.b.1.c does not control diffusion and oxidation furnaces.

1. Annealing or recrystallizing equipment other than constant temperature furnaces employing high rates of energy transfer capable of processing wafers at a rate exceeding 0,005 m² per minute;
2. “Stored program controlled” crystal pullers having any of the following characteristics:
 - a. Rechargeable without replacing the crucible container;
 - b. Capable of operation at pressures above 2,5 x 10⁵ Pa; or
 - c. Capable of pulling crystals of a diameter exceeding 100 mm;
- d. “Stored program controlled” equipment for epitaxial growth having any of the following characteristics:
 1. Capable of producing silicon layer with a thickness uniform to less than ± 2,5 % across a distance of 200 mm or more;

2. Capable of producing a layer of any material other than silicon with a thickness uniformity across the wafer of equal to or better than $\pm 3,5 \%$; or
 3. Rotation of individual wafers during processing;
- e. Molecular beam epitaxial growth equipment;
- f. Magnetically enhanced “sputtering” equipment with specially designed integral load locks capable of transferring wafers in an isolated vacuum environment;
- g. Equipment specially designed for ion implantation, ion-enhanced or photo-enhanced diffusion, having any of the following characteristics:
1. Patterning capability;
 2. Beam energy (accelerating voltage) exceeding 200 keV;
 3. Optimised to operate at a beam energy (accelerating voltage) of less than 10 keV; or
 4. Capable of high energy oxygen implant into a heated “substrate”;

-
- h. “Stored program controlled” equipment for the selective removal (etching) by means of anisotropic dry methods (e.g., plasma), as follows:
1. “Batch types” having either of the following:
 - a. End-point detection, other than optical emission spectroscopy types; or
 - b. Reactor operational (etching) pressure of 26,66 Pa or less;
 2. “Single wafer types” having any of the following:
 - a. End-point detection, other than optical emission spectroscopy types;
 - b. Reactor operational (etching) pressure of 26,66 Pa or less; or
 - c. Cassette-to-cassette and load locks wafer handling;

Notes:

1. *“Batch types” refers to machines not specially designed for production processing of single wafers. Such machines can process two or more wafers simultaneously with common process parameters, e.g., RF power, temperature, etch gas species, flowrates.*
2. *“Single wafer types” refers to machines specially designed for production processing of single wafers. These machines may use automatic wafer handling techniques to load a single wafer into the equipment for processing. The definition includes equipment that can load and process several wafers but where the etching parameters, e.g., RF power or end point, can be independently determined for each individual wafer.*

- i. Chemical vapour deposition (CVD) equipment, e.g., plasma-enhanced CVD (PECVD) or photo-enhanced CVD, for semiconductor device manufacturing, having either of the following capabilities, for deposition of oxides, nitrides, metals or polysilicon:
 1. Chemical vapour deposition equipment operating below 10^5 Pa; or
 2. PECVD equipment operating either below 60 Pa or having automatic cassette-to-cassette and load lock wafer handling;

Note: X.B.I.001.b.1.i does not control low pressure chemical vapour deposition (LPCVD) systems or reactive “sputtering” equipment.

- j. Electron beam systems specially designed or modified for mask making or semiconductor device processing having any of the following characteristics:
 1. Electrostatic beam deflection;
 2. Shaped, non-Gaussian beam profile;
 3. Digital-to-analogue conversion rate exceeding 3 MHz;

4. Digital-to-analogue conversion accuracy exceeding 12 bit; or
5. Target-to-beam position feedback control precision of 1 μm or finer;

Note: X.B.I.001.b.1.j does not control electron beam deposition systems or general purpose scanning electron microscopes.

- k. Surface finishing equipment for the processing of semiconductor wafers as follows:
 1. Specially designed equipment for backside processing of wafers thinner than 100 μm and the subsequent separation thereof; or
 2. Specially designed equipment for achieving a surface roughness of the active surface of a processed wafer with a two-sigma value of 2 μm or less, total indicator reading (TIR);

Note: X.B.I.001.b.1.k does not control single-side lapping and polishing equipment for wafer surface finishing.

- l. Interconnection equipment which includes common single or multiple vacuum chambers specially designed to permit the integration of any equipment controlled by X.B.I.001 into a complete system;
- m. “Stored program controlled” equipment using “lasers” for the repair or trimming of “monolithic integrated circuits” with either of the following characteristics:
 1. Positioning accuracy less than $\pm 1 \mu\text{m}$; or
 2. Spot size (kerf width) less than $3 \mu\text{m}$.

Technical Note: For the purpose of X.B.I.001.b.1, “sputtering” is an overlay coating process wherein positively charged ions are accelerated by an electric field towards the surface of a target (coating material). The kinetic energy of the impacting ions is sufficient to cause target surface atoms to be released and deposited on the substrate. (Note: Triode, magnetron or radio frequency sputtering to increase adhesion of coating and rate of deposition are ordinary modifications of the process.).

2. Masks, mask substrates, mask-making equipment and image transfer equipment for the manufacture of devices and components as specified in the heading of X.B.I.001, as follows:

Note: The term masks refers to those used in electron beam lithography, X-ray lithography, and ultraviolet lithography, as well as the usual ultraviolet and visible photo-lithography.

- a. Finished masks, reticles and designs therefor, except:
 1. Finished masks or reticles for the production of integrated circuits not controlled by 3A001¹; or
 2. Masks or reticles, having both of the following characteristics:
 - a. Their design is based on geometries of 2,5 µm or more; and
 - b. The design does not include special features to alter the intended use by means of production equipment or “software”;

¹ Ref. Annex I to Regulation (EU) 2021/821

- b. Mask substrates as follows:
 - 1. Hard surface (e.g., chromium, silicon, molybdenum) coated “substrates” (e.g., glass, quartz, sapphire) for the preparation of masks having dimensions exceeding 125 mm x 125 mm;
or
 - 2. Substrates specially designed for X-ray masks;
- c. Equipment, other than general purpose computers, specially designed for computer aided design (CAD) of semiconductor devices or integrated circuits;
- d. Equipment or machines, as follows, for mask or reticle fabrication:
 - 1. Photo-optical step and repeat cameras capable of producing arrays larger than 100 mm x 100 mm, or capable of producing a single exposure larger than 6 mm x 6 mm in the image (i.e., focal) plane, or capable of producing line widths of less than 2,5 µm in the photoresist on the “substrate”;
 - 2. Mask or reticle fabrication equipment using ion or “laser” beam lithography capable of producing line widths of less than 2,5 µm; or

3. Equipment or holders for altering masks or reticles or adding pellicles to remove defects;

Note: X.B.I.001.b.2.d.1 and b.2.d.2 do not control mask fabrication equipment using photo-optical methods which was either commercially available before the 1st January 1980, or has a performance no better than such equipment.

- e. “Stored program controlled” equipment for the inspection of masks, reticles or pellicles with:

1. A resolution of 0,25 μm or finer; and
2. A precision of 0,75 μm or finer over a distance in one or two coordinates of 63,5 mm or more;

Note: X.B.I.001.b.2.e does not control general purpose scanning electron microscopes except when specially designed and instrumented for automatic pattern inspection.

- f. Align and expose equipment for wafer production using photo-optical or X-ray methods, e.g., lithography equipment, including both projection image transfer equipment and step and repeat (direct step on wafer) or step and scan (scanner) equipment, capable of performing any of the following functions:

Note: X.B.I.001.b.2.f does not control photo-optical contact and proximity mask align and expose equipment or contact image transfer equipment.

1. Production of a pattern size of less than 2,5 μm ;
2. Alignment with a precision finer than $\pm 0,25 \mu\text{m}$ (3 sigma);
3. Machine-to-machine overlay no better than $\pm 0,3 \mu\text{m}$; or
4. A light source wavelength shorter than 400 nm;

- g. Electron beam, ion beam or X-ray equipment for projection image transfer capable of producing patterns less than 2,5 μm ;

Note: For focused, deflected-beam systems (direct write systems), see X.B.I.001.b.1.j.

- h. Equipment using “lasers” for direct write on wafers capable of producing patterns less than 2,5 μm .

3. Equipment for the assembly of integrated circuits, as follows:
 - a. “Stored program controlled” die bonders having all of the following characteristics:
 1. Specially designed for “hybrid integrated circuits”;
 2. X-Y stage positioning travel exceeding 37,5 x 37,5 mm; and
 3. Placement accuracy in the X-Y plane of finer than $\pm 10\ \mu\text{m}$;
 - b. “Stored program controlled” equipment for producing multiple bonds in a single operation (e.g., beam lead bonders, chip carrier bonders, tape bonders);
 - c. Semi-automatic or automatic hot cap sealers, in which the cap is heated locally to a higher temperature than the body of the package, specially designed for ceramic microcircuit packages controlled by 3A001¹ and that have a throughput equal to or more than one package per minute.

Note: X.B.I.001.b.3 does not control general purpose resistance type spot welders.

¹ Ref. Annex I to Regulation (EU) 2021/821

4. Filters for clean rooms capable of providing an air environment of 10 or less particles of 0,3 µm or smaller per 0,02832 m³ and filter materials therefor.

Technical Note: For the purpose of X.B.I.001, “stored program controlled” is a control using instructions stored in an electronic storage that a processor can execute in order to direct the performance of predetermined functions. Equipment may be “stored program controlled” whether the electronic storage is internal or external to the equipment.

X.B.I.02 Equipment for the inspection or testing of electronic components and materials, and specially designed components and accessories therefor.

- a. Equipment specially designed for the inspection or testing of electron tubes, optical elements and specially designed components therefor controlled by 3A001¹ or X.A.I.001;
- b. Equipment specially designed for the inspection or testing of semiconductor devices, integrated circuits and “electronic assemblies”, as follows, and systems incorporating or having the characteristics of such equipment:

Note: X.B.I.002.b also controls equipment used or modified for use in the inspection or testing of other devices, such as imaging devices, electro-optical devices, acoustic-wave devices.

¹ Ref. Annex I to Regulation (EU) 2021/821

1. “Stored program controlled” inspection equipment for the automatic detection of defects, errors or contaminants of 0,6 μm or less in or on processed wafers, substrates, other than printed circuit boards or chips, using optical image acquisition techniques for pattern comparison;

Note: X.B.I.002.b.1 does not control general purpose scanning electron microscopes, except when specially designed and instrumented for automatic pattern inspection.

2. Specially designed “stored program controlled” measuring and analysis equipment, as follows:
 - a. Specially designed for the measurement of oxygen or carbon content in semiconductor materials;
 - b. Equipment for line width measurement with a resolution of 1 μm or finer;
 - c. Specially designed flatness measurement instruments capable of measuring deviations from flatness of 10 μm or less with a resolution of 1 μm or finer.

3. “Stored program controlled” wafer probing equipment having any of the following characteristics:
 - a. Positioning accuracy finer than 3,5 µm;
 - b. Capable of testing devices having more than 68 terminals; or
 - c. Capable of testing at a frequency exceeding 1 GHz;
4. Test equipment as follows:
 - a. “Stored program controlled” equipment specially designed for testing discrete semiconductor devices and unencapsulated dice, capable of testing at frequencies exceeding 18 GHz;
Technical Note: Discrete semiconductor devices include photocells and solar cells.
 - b. “Stored program controlled” equipment specially designed for testing integrated circuits and “electronic assemblies” thereof, capable of functional testing:
 1. At a “pattern rate” exceeding 20 MHz; or

2. At a “pattern rate” exceeding 10 MHz but not exceeding 20 MHz and capable of testing packages of more than 68 terminals.

Notes: X.B.I.002.b.4.b does not control test equipment specially designed for testing:

1. *Memories;*
2. *Assemblies or a class of “electronic assemblies” for home and entertainment applications; and*
3. *Electronic components, “electronic assemblies” and integrated circuits not controlled by 3A001¹ or X.A.I.001 provided such test equipment does not incorporate computing facilities with “user accessible programmability”.*

Technical Note: For purposes of X.B.I.002.b.4.b, “pattern rate” is defined as the maximum frequency of digital operation of a tester. It is therefore equivalent to the highest data rate that a tester can provide in non-multiplexed mode. It is also referred to as test speed, maximum digital frequency or maximum digital speed.

¹ Ref. Annex I to Regulation (EU) 2021/821

- c. Equipment specially designed for determining the performance of focal-plane arrays at wavelengths of more than 1 200 nm, using “stored program controlled” measurements or computer aided evaluation and having any of the following characteristics:
 1. Using scanning light spot diameters of less than 0,12 mm;
 2. Designed for measuring photosensitive performance parameters and for evaluating frequency response, modulation transfer function, uniformity of responsivity or noise; or
 3. Designed for evaluating arrays capable of creating images with more than 32 x 32 line elements;
5. Electron beam test systems designed for operation at 3 keV or below, or “laser” beam systems, for non-contactive probing of powered-up semiconductor devices having any of the following:
 - a. Stroboscopic capability with either beam blanking or detector strobing;

- b. An electron spectrometer for voltage measurements with a resolution of less than 0,5 V; or
- c. Electrical tests fixtures for performance analysis of integrated circuits;

Note: X.B.I.002.b.5 does not control scanning electron microscopes, except when specially designed and instrumented for non-contactive probing of a powered-up semiconductor device.

- 6. “Stored program controlled” multifunctional focused ion beam systems specially designed for manufacturing, repairing, physical layout analysis and testing of masks or semiconductor devices and having either of the following characteristics:
 - a. Target-to-beam position feedback control precision of 1 μm or finer; or
 - b. Digital-to-analogue conversion accuracy exceeding 12 bit;

7. Particle measuring systems employing “lasers” designed for measuring particle size and concentration in air having both of the following characteristics:
 - a. Capable of measuring particle sizes of 0,2 µm or less at a flow rate of 0,02832 m³ per minute or more; and
 - b. Capable of characterizing Class 10 clean air or better.

Technical Note: For the purpose of X.B.I.002, “stored program controlled” is a control using instructions stored in an electronic storage that a processor can execute in order to direct the performance of predetermined functions. Equipment may be “stored program controlled” whether the electronic storage is internal or external to the equipment.

X.B.I.03 Equipment for the manufacture of Printed Circuit Boards (PCBs) and specially designed components and accessories therefor, as follows:

- a. Film processing equipment;
- b. Solder mask coating equipment;
- c. Photo plotter equipment;
- d. Plating or electroplating deposition equipment;

- e. Vacuum chambers and presses;
- f. Roll laminators;
- g. Alignment equipment; or
- h. Etching equipment.

X.B.I.04 Automated optical inspection equipment for testing Printed Circuit Boards (PCBs), based on optical or electrical sensors, and capable to detect any of the following quality defects:

- a. Spacing, area, volume or height;
- b. Bill boarding;
- c. Components (presence, absence, flipped, offset, polarity, or skew);
- d. Solder (bridging, insufficient solder joints);
- e. Leads (insufficient paste, lifting);
- f. Tombstoning; or
- g. Electrical (shorts, opens, resistance, capacitance, power, grid performance).

X.C.I.01 Positive resists designed for semiconductor lithography specially adjusted (optimised) for use at wavelengths between 370 and 193 nm.

X.C.I.02 Chemicals and materials of the type used in the production of Printed Circuit Boards (PCBs), as follows:

- a. PCB composite substrates made of glass fibre or cotton (e.g. FR-4, FR-2, FR-6, CEM-1, G-10, etc.);
- b. Multilayer PCB substrates, containing at least one layer of any of the following materials:
 1. Aluminium;
 2. Polytetrafluoroethylene (PTFE); or
 3. Ceramic materials (e.g. alumina, titanium oxide, etc.);
- c. Etchant chemicals;
 1. Ferric chloride (7705-08-0);
 2. Cupric chloride (7447-39-4);
 3. Ammonium persulphate (7727-54-0);

4. Sodium persulphate (7775-27-1); or
5. Chemical preparations specially designed for etching and containing any of the chemicals included in X.C.I.002.c.1 to X.C.I.002.c.4.

Note: X.C.I.002.c does not control "chemical mixtures" containing one or more of the chemicals specified in entry X.C.I.002.c in which no individually specified chemical constitutes more than 10 % by the weight of the mixture.

- d. Copper foil with a minimum purity 95 % and of a thickness less than 100 µm;
- e. Polymeric substances and films thereof of less than 0,5 mm of thickness, as follows:
 1. Aromatic polyimides;
 2. Parylenes;
 3. Benzocyclobutenes (BCBs); or
 4. Polybenzoxazoles.

- X.D.I.01 “Software” specially designed for the “development”, “production”, or “use” of electronic devices or components controlled by X.A.I.001, general purpose electronic equipment controlled by X.A.I.002, or manufacturing and test equipment controlled by X.B.I.001 and X.B.I.002; or “software” specially designed for the “use” of equipment controlled by 3B001.g and 3B001.h¹.
- X.D.I.02 “Software” specially designed for the test, “development” or “production” of Printed Circuit Boards (PCBs).
- X.E.I.001 “Technology” for the “development”, “production” or “use” of electronic devices or components controlled by X.A.I.001, general purpose electronic equipment controlled by X.A.I.002, or manufacturing and test equipment controlled by X.B.I.001 or X.B.I.002, or materials controlled by X.C.I.001.
- X.E.I.002 “Technology” for the “development”, “production” or “use” of Printed Circuit Boards (PCBs).

¹ Ref. Annex I to Regulation (EU) 2021/821

Category II – Computers

Note: Category II does not control goods for the personal use of the natural persons.

X.A.II.01 Computers, “electronic assemblies” and related equipment, not controlled by 4A001 or 4A003¹, and specially designed components therefor.

Note: The control status of the “digital computers” and related equipment described in X.A.II.001 is determined by the control status of other equipment or systems provided:

- a. *The “digital computers” or related equipment are essential for the operation of the other equipment or systems;*
- b. *The “digital computers” or related equipment are not a “principal element” of the other equipment or systems; and*

N.B.I: The control status of “signal processing” or “image enhancement” equipment specially designed for other equipment with functions limited to those required for the other equipment is determined by the control status of the other equipment even if it exceeds the “principal element” criterion.

¹ Ref. Annex I to Regulation (EU) 2021/821

N.B.2: For the control status of “digital computers” or related equipment for telecommunications equipment, see Category 5, Part 1 (Telecommunications)¹.

c. The “technology” for the “digital computers” and related equipment is determined by 4E¹.

- a. Electronic computers and related equipment, and “electronic assemblies” and specially designed components therefor, rated for operation at an ambient temperature above 343 K (70 °C);
- b. “Digital computers”, including equipment of “signal processing” or “image enhancement”, having an “Adjusted Peak Performance” (“APP”) equal to or greater than 0,0128 Weighted TeraFLOPS (WT);
- c. “Electronic assemblies” that are specially designed or modified to enhance performance by aggregation of processors, as follows:
 1. Designed to be capable of aggregation in configurations of 16 or more processors;
 2. Not used;

¹ Ref. Annex I to Regulation (EU) 2021/821

Note 1: X.A.II.001.c applies only to “electronic assemblies” and programmable interconnections with a “APP” not exceeding the limits in X.A.II.001.b, when shipped as unintegrated “electronic assemblies”. It does not apply to “electronic assemblies” inherently limited by nature of their design for use as related equipment controlled by X.A.II.001.k.

Note 2: X.A.II.001.c does not control any “electronic assembly” specially designed for a product or family of products whose maximum configuration does not exceed the limits of X.A.II.001.b.

- d. Not used;
- e. Not used;
- f. Equipment for “signal processing” or “image enhancement” having an “Adjusted Peak Performance” (“APP”) equal to or greater than 0,0128 Weighted TeraFLOPS WT;
- g. Not used;
- h. Not used;

- i. Equipment containing “terminal interface equipment” exceeding the limits in X.A.III.101;

Technical Note: For the purpose of X.A.II.001.i, “terminal interface equipment” means equipment at which information enters or leaves the telecommunication system, e.g. telephone, data device, computer, etc.

- j. Equipment specially designed to provide external interconnection of “digital computers” or associated equipment that allows communications at data rates exceeding 80 Mbyte/s.

Note: X.A.II.001.j does not control internal interconnection equipment (e.g., backplanes, buses) passive interconnection equipment, “network access controllers” or “communication channel controllers”.

Technical Note: For the purpose of X.A.II.001.j, “communication channel controllers” is the physical interface which controls the flow of synchronous or asynchronous digital information. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access.

- k. Hybrid computers and “electronic assemblies” and specially designed components therefor containing analogue-to-digital converters having all of the following characteristics:
 1. 32 channels or more; and
 2. A resolution of 14 bit (plus sign bit) or more with a conversion rate of 200 000 Hz or more.

X.D.II.01 “Program” proof and validation “software”, “software” allowing the automatic generation of “source codes”, and operating system “software” that are specially designed for “real-time processing” equipment.”

- a. “Program” proof and validation “software” using mathematical and analytical techniques and designed or modified for “programs” having more than 500 000 “source code” instructions;
- b. “Software” allowing the automatic generation of “source codes” from data acquired on line from external sensors described in the Regulation (EU) 2021/821; or
- c. Operating system “software” specially designed for “real-time processing” equipment that guarantees a “global interrupt latency time” of less than 20 μ s.

Technical Note: For the purpose of X.D.II.001, “global interrupt latency time” is the time taken by the computer system to recognise an interrupt due to the event, service the interrupt and perform a context switch to an alternate memory-resident task waiting on the interrupt.

- X.D.II.02 “Software” other than that controlled in 4D001¹ specially designed or modified for the “development”, “production” or “use” of equipment controlled by 4A101¹.
- X.E.II.01 “Technology” for the “development”, “production” or “use” of equipment controlled by X.A.II.001, or “software” controlled by X.D.II.001 or X.D.II.002.
- X.E.II.02 “Technology” for the “development” or “production” of equipment designed for “multi-data-stream processing”.

Technical Note: For the purpose of X.E.II.002, “multi-data-stream processing” is a microprogram or equipment architecture technique that permits simultaneous processing of two or more data sequences under the control of one or more instruction sequences by means such as:

1. *Single Instruction Multiple Data (SIMD) architectures such as vector or array processors;*

¹ Ref. Annex I to Regulation (EU) 2021/821

2. *Multiple Single Instruction Multiple Data (MSIMD) architectures;*
3. *Multiple Instruction Multiple Data (MIMD) architectures, including those that are tightly coupled, closely coupled or loosely coupled; or*
4. *Structured arrays of processing elements, including systolic arrays.*

Category III. Part 1 – Telecommunications

Note: Category III. Part 1 does not control goods for the personal use of the natural persons.

X.A.III.101 Telecommunication equipment.

- a. Any type of telecommunications equipment, not controlled by 5A001.a¹, specially designed to operate outside the temperature range from 219 K (– 54 °C) to 397 K (124 °C).
- b. Telecommunication transmission equipment and systems, and specially designed components and accessories therefor, having any of the following characteristics, functions or features:

Note: Telecommunication transmission equipment:

- a. *Categorised as follows, or combinations thereof:*
 1. *Radio equipment (e.g., transmitters, receivers and transceivers);*

¹ Ref. Annex I to Regulation (EU) 2021/821

2. *Line terminating equipment;*
 3. *Intermediate amplifier equipment;*
 4. *Repeater equipment;*
 5. *Regenerator equipment;*
 6. *Translation encoders (transcoders);*
 7. *Multiplex equipment (statistical multiplex included);*
 8. *Modulators/demodulators (modems);*
 9. *Transmultiplex equipment (see CCITT Rec. G701);*
 10. *“Stored program controlled” digital crossconnection equipment;*
 11. *“Gateways” and bridges;*
 12. *“Media access units”; and*
- b. *Designed for use in single or multi-channel communication via any of the following:*
1. *Wire (line);*

2. *Coaxial cable;*
 3. *Optical fibre cable;*
 4. *Electromagnetic radiation; or*
 5. *Underwater acoustic wave propagation.*
1. Employing digital techniques, including digital processing of analogue signals, and designed to operate at a “digital transfer rate” at the highest multiplex level exceeding 45 Mbit/s or a “total digital transfer rate” exceeding 90 Mbit/s;

Note: X.A.III.101.b.1 does not control equipment specially designed to be integrated and operated in any satellite system for civil use.

2. Modems using the “bandwidth of one voice channel” with a “data signalling rate” exceeding 9 600 bits per second;
3. Being “stored program controlled” digital cross connect equipment with “digital transfer rate” exceeding 8,5 Mbit/s per port;

4. Being equipment containing any of the following:
 - a. "Network access controllers" and their related common medium having a "digital transfer rate" exceeding 33 Mbit/s; or
 - b. "Communication channel controllers" with a digital output having a "data signalling rate" exceeding 64 000 bit/s per channel;

Note: If any uncontrolled equipment contains a "network access controller", it cannot have any type of telecommunications interface, except those described in, but not controlled by X.A.III.101.b.4.

5. Employing a "laser" and having any of the following characteristics:
 - a. A transmission wavelength exceeding 1 000 nm; or
 - b. Employing analogue techniques and having a bandwidth exceeding 45 MHz;
 - c. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);

- d. Employing wavelength division multiplexing techniques; or
 - e. Performing “optical amplification”;
6. Radio equipment operating at input or output frequencies exceeding:
- a. 31 GHz for satellite-earth station applications; or
 - b. 26,5 GHz for other applications;

Note: X.A.III.101.b.6 does not control equipment for civil use when conforming with an International Telecommunications Union (ITU) allocated band between 26,5 GHz and 31 GHz.

7. Being radio equipment employing any of the following:
- a. Quadrature-amplitude-modulation (QAM) techniques above level 4 if the “total digital transfer rate” exceeds 8,5 Mbit/s;
 - b. QAM techniques above level 16 if the “total digital transfer rate” is equal to or less than 8,5 Mbit/s;
 - c. Other digital modulation techniques and having a “spectral efficiency” exceeding 3 bit/s/Hz; or

- d. Operating in the 1,5 MHz to 87,5 MHz band and incorporating adaptive techniques providing more than 15 dB suppression of an interfering signal.

Notes:

1. *X.A.III.101.b.7 does not control equipment specially designed to be integrated and operated in any satellite system for civil use.*
2. *X.A.III.101.b.7 does not control radio relay equipment for operation in an International Telecommunications Union (ITU) allocated band:*
 - a. *Having any of the following:*
 1. Not exceeding 960 MHz; or
 2. With a “total digital transfer rate” not exceeding 8,5 Mbit/s; and
 - b. *Having a “spectral efficiency” not exceeding 4 bit/s/Hz.*

- c. “Stored program controlled” switching equipment and related signalling systems, having any of the following characteristics, functions or features, and specially designed components and accessories therefor:

Note: Statistical multiplexers with digital input and digital output which provide switching are treated as “stored program controlled” switches.

1. “Data (message) switching” equipment or systems designed for “packet-mode operation”, “electronic assemblies” and components therefor, other than those specified in the CML or in Regulation (EU) 2021/821;
2. Not used;
3. Routing or switching of “datagram” packets;

Note: X.A.III.101.c.3 does not control networks restricted to using only “network access controllers” or to “network access controllers” themselves.

4. Not used;
5. Multi-level priority and pre-emption for circuit switching;

Note: X.A.III.101.c.5 does not control single-level call preemption.

6. Designed for automatic hand-off of cellular radio calls to other cellular switches or automatic connection to a centralised subscriber data base common to more than one switch;
7. Containing “stored program controlled” digital cross connect equipment with “digital transfer rate” exceeding 8,5 Mbit/s per port;
8. “Common channel signalling” operating in either non-associated or quasi-associated mode of operation;
9. “Dynamic adaptive routing”;
10. Being packet switches, circuit switches and routers with ports or lines exceeding any of the following:
 - a. A “data signalling rate” of 64 000 bit/s per channel for a “communications channel controller”; or

Note: X.A.III.101.c.10.a does not control multiplex composite links composed only of communication channels not individually controlled by X.A.III.101.b.1.

- b. A “digital transfer rate” of 33 Mbit/s for a “network access controller” and related common media;

Note: X.A.III.101.c.10 does not control packet switches or routers with ports or lines not exceeding the limits in X.A.III.101.c.10.

11. “Optical switching”;
 12. Employing “Asynchronous Transfer Mode” (“ATM”) techniques.
- d. Optical fibres and optical fibre cables of more than 50 m in length designed for single mode operation;
 - e. Centralised network control having all of the following characteristics:
 1. Receives data from the nodes; and
 2. Process these data in order to provide control of traffic not requiring operator decisions, and thereby performing “dynamic adaptive routing”;

Note 1: X.A.III.101.e does not include cases of routing decisions taken on predefined information.

Note 2: X.A.III.101.e does not preclude control of traffic as a function of predictable statistical traffic conditions.

- f.* Phased array antennas, operating above 10,5 GHz, containing active elements and distributed components, and designed to permit electronic control of beam shaping and pointing, except for landing systems with instruments meeting International Civil Aviation Organization (ICAO) standards (microwave landing systems (MLS));
- g.* Mobile communications equipment other than those specified in the CML or in Regulation (EU) 2021/821, “electronic assemblies” and components therefor; or
- h.* Radio relay communications equipment designed for use at frequencies equal to or exceeding 19,7 GHz and components therefor, other than those specified in the CML or in Regulation (EU) 2021/821.

Technical Note: For the purpose of X.A.III.101:

- 1) “Asynchronous transfer mode” (“ATM”) is a transfer mode in which the information is organised into cells; it is asynchronous in the sense that the recurrence of cells depends on the required or instantaneous bitrate.*
- 2) “Bandwidth of one voice channel” is data communication equipment designed to operate in one voice channel of 3 100 Hz, as defined in CCITT Recommendation G.151.*

- 3) *“Communications channel controller” is the physical interface that controls the flow of synchronous or asynchronous digital information. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access.*
- 4) *“Datagram” is a self-contained, independent entity of data carrying sufficient information to be routed from the source to the destination data terminal equipment without reliance on earlier exchanges between this source and destination data terminal equipment and the transporting network.*
- 5) *“Fast select” is a facility applicable to virtual calls that allows data terminal equipment to expand the possibility to transmit data in call set-up and clearing “packets” beyond the basic capabilities of a virtual call.*
- 6) *“Gateway” is the function, realised by any combination of equipment and “software”, to carry out the conversion of conventions for representing, processing or communicating information used on one system into the corresponding, but different conventions used in another system.*
- 7) *“Integrated Services Digital Network” (ISDN) is a unified end-to-end digital network, in which data originating from all types of communication (e.g., voice, text, data, still and moving pictures) are transmitted from one port (terminal) in the exchange (switch) over one access line to and from the subscriber.*

- 8) *“Packet” is a group of binary digits including data and call control signals that is switched as a composite whole. The data, call control signals, and possible error control information are arranged in a specified format.*
- 9) *“Common channel signalling” means the transmission of control information (signalling) via a separate channel than that used for the messages. The signalling channel usually controls multiple message channels.*
- 10) *“Data signalling rate” means the rate, as defined in ITU Recommendation 53-36, taking into account that, for non-binary modulation, baud and bit per second are not equal. Bits for coding, checking and synchronization functions are to be included.*
- 11) *“Dynamic adaptive routing” means Automatic rerouting of traffic based on sensing and analysis of current actual network conditions*
- 12) *“Media access unit” means equipment that contains one or more communication interfaces (“network access controller”, “communications channel controller”, modem or computer bus) to connect terminal equipment to a network.*
- 13) *“Spectral efficiency” is the “digital transfer rate” [bits/s] / 6 dB spectrum bandwidth in Hz.*

14) *“Stored program controlled” is a control using instructions stored in an electronic storage that a processor can execute in order to direct the performance of predetermined functions.*

Note: Equipment may be “stored program controlled” whether the electronic storage is internal or external to the equipment.

- X.B.III.101 Telecommunications test equipment, other than those specified in the CML or in Regulation (EU) 2021/821.
- X.C.III.101 Preforms of glass or of any other material optimised for the manufacture of optical fibres controlled by X.A.III.101.
- X.D.III.101 “Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by X.A.III.101 and X.B.III.101, and dynamic adaptive routing “software” as described as follows:
- a. “Software”, other than in machine-executable form, specially designed for “dynamic adaptive routing”;
 - b. Not used.

X.E.III.101 “Technology” for the “development”, “production” or “use” of equipment controlled by X.A.III.101 or X.B.III.101, or “software” controlled by X.D.III.101, and other “technologies” as follows:

- a. Specific “technologies” as follows:
 1. “Technology” for the processing and application of coatings to optical fibre specially designed to make it suitable for underwater use;
 2. “Technology” for the “development” of equipment employing “Synchronous Digital Hierarchy” (“SDH”) or “Synchronous Optical Network” (“SONET”) techniques.

Technical Note: For the purpose of X.E.III.101:

- 1) *“Synchronous digital hierarchy” (SDH) is a digital hierarchy providing a means to manage, multiplex, and access various forms of digital traffic using a synchronous transmission format on different types of media. The format is based on the Synchronous Transport Module (STM) that is defined by CCITT Recommendation G.703, G.707, G.708, G.709 and others yet to be published. The first level rate of “SDH” is 155,52 Mbits/s.*

- 2) *“Synchronous optical network” (SONET) is a network providing a means to manage, multiplex and access various forms of digital traffic using a synchronous transmission format on fibre optics. The format is the North America version of “SDH” and also uses the Synchronous Transport Module (STM). However, it uses the Synchronous Transport Signal (STS) as the basic transport module with a first level rate of 51,81 Mbits/s. The SONET standards are being integrated into those of “SDH”.*

Category III. Part 2 – Information Security

Note: Category III. Part 2 does not control goods for the personal use of the natural persons.

X.A.III.201 Equipment as follows:

- a. Not used;
- b. Not used;
- c. Goods classified as mass market encryption in accordance with Cryptography Note – Note 3 to Category 5, Part 2¹.

¹ Ref. Annex I to Regulation (EU) 2021/821

X.D.III.201 “Information Security” “software” as follows:

Note: This entry does not control “software” designed or modified to protect against malicious computer damage, e.g., viruses, where the use of “cryptography” is limited to authentication, digital signature and/or the decryption of data or files.

- a. Not used;
- b. Not used;
- c. “Software” classified as mass market encryption “software” in accordance with Cryptography Note – Note 3 to Category 5, Part 2¹.

X.E.III.201 “Information Security” “technology” according to the General Technology Note, as follows:

- a. Not used;
- b. “Technology”, other than specified in the CML or in Regulation (EU) 2021/821, for the “use” of mass market goods controlled by X.A.III.201.c or mass market “software” controlled by X.D.III.201.c.

¹ Ref. Annex I to Regulation (EU) 2021/821

Category IV – Sensors and Lasers

- X.A.IV.01 Marine or terrestrial acoustic equipment, capable of detecting or locating underwater objects or features or positioning surface vessels or underwater vehicles; and specially designed components, other than those specified in the CML or in Regulation (EU) 2021/821.
- X.A.IV.02 Optical Sensors as follows:
- a. Image intensifier tubes and specially designed components therefor, as follows:
 1. Image intensifier tubes having all the following:
 - a. A peak response in wavelength range exceeding 400 nm, but not exceeding 1 050 nm;
 - b. A microchannel plate for electron image amplification with a hole pitch (centre-to-centre spacing) of less than 25 µm; and

- c. Having any of the following:
 1. An S-20, S-25 or multialkali photocathode; or
 2. A GaAs or GaInAs photocathode;
2. Specially designed microchannel plates having both of the following characteristics:
 - a. 15 000 or more hollow tubes per plate; and
 - b. Hole pitch (centre-to-centre spacing) of less than 25 µm.
- b. Direct view imaging equipment operating in the visible or infrared spectrum, incorporating image intensifier tubes having the characteristics listed in X.A.IV.002.a.1.

X.A.IV.03 Cameras as follows:

- a. Cameras that meet the criteria of Note 3 to 6A003.b.4.¹;
- b. Not used;

¹ Ref. Annex I to Regulation (EU) 2021/821

X.A.IV.04 Optics as follows:

Note: X.A.IV.004 does not control optical filters with fixed air gaps or Lyot-type filters.

a. Optical filters:

1. For wavelengths longer than 250 nm, comprised of multi-layer optical coatings and having either of the following:
 - a. Bandwidths equal to or less than 1 nm Full Width Half Intensity (FWHI) and peak transmission of 90 % or more; or
 - b. Bandwidths equal to or less than 0,1 nm FWHI and peak transmission of 50 % or more;
2. For wavelengths longer than 250 nm, and having all of the following:
 - a. Tunable over a spectral range of 500 nm or more;
 - b. Instantaneous optical bandpass of 1,25 nm or less;
 - c. Wavelength resettable within 0,1 ms to an accuracy of 1 nm or better within the tunable spectral range; and
 - d. A single peak transmission of 91 % or more;

3. Optical opacity switches (filters) with a field of view of 30° or wider and a response time equal to or less than 1 ns;
- b. “Fluoride fibre” cable, or optical fibres therefor, having an attenuation of less than 4 dB/km in the wavelength range exceeding 1 000 nm but not exceeding 3 000 nm;

Technical Note: For the purpose of X.A.IV.004.b “Fluoride fibres” are fibres manufactured from bulk fluoride compounds.

X.A.IV.05 “Lasers” as follows:

- a. Carbon dioxide (CO₂) “lasers” having any of the following:
 1. A CW output power exceeding 10 kW;
 2. A pulsed output with a “pulse duration” exceeding 10 µs; and
 - a. An average output power exceeding 10 kW; or
 - b. A pulsed “peak power” exceeding 100 kW; or

3. A pulsed output with a “pulse duration” equal to or less than 10 μ s; and
 - a. A pulse energy exceeding 5 J per pulse and “peak power” exceeding 2,5 kW; or
 - b. An average output power exceeding 2,5 kW;
- b. Semiconductor lasers, as follows:
 1. Individual, single-transverse mode semiconductor “lasers” having:
 - a. An average output power exceeding 100 mW; or
 - b. A wavelength exceeding 1 050 nm;
 2. Individual, multiple-transverse mode semiconductor “lasers”, or arrays of individual semiconductor “lasers”, having a wave-length exceeding 1 050 nm;
- c. Ruby “lasers” having an output energy exceeding 20 J per pulse;

- d. Non-“tunable” “pulsed lasers” having an output wavelength exceeding 975 nm but not exceeding 1 150 nm and having any of the following:
1. A “pulse duration” equal to or exceeding 1 ns but not exceeding 1 μ s, and having any of the following:
 - a. A single transverse mode output and having any of the following:
 1. A “wall-plug efficiency” exceeding 12 % and an “average output power” exceeding 10 W and capable of operating at a pulse repetition frequency greater than 1 kHz; or
 2. An “average output power” exceeding 20 W; or
 - b. A multiple transverse mode output and having any of the following:
 1. A “wall-plug efficiency” exceeding 18 % and an “average output power” exceeding 30W;
 2. A “peak power” exceeding 200 MW; or
 3. An “average output power” exceeding 50 W; or

2. A “pulse duration” exceeding 1 μs and having any of the following:
 - a. A single transverse mode output and having any of the following:
 1. A “wall-plug efficiency” exceeding 12 % and an “average output power” exceeding 10 W and capable of operating at a pulse repetition frequency greater than 1 kHz; or
 2. An “average output power” exceeding 20 W; or
 - b. A multiple transverse mode output and having any of the following:
 1. A “wall-plug efficiency” exceeding 18 % and an “average output power” exceeding 30 W; or
 2. An “average output power” exceeding 500 W;

-
- e. Non-“tunable” continuous wave “(CW) lasers”, having an output wavelength exceeding 975 nm but not exceeding 1 150 nm and having any of the following:
1. A single transverse mode output and having any of the following:
 - a. A “wall-plug efficiency” exceeding 12 % and an “average output power” exceeding 10 W and capable of operating at a pulse repetition frequency greater than 1 kHz; or
 - b. An “average output power” exceeding 50 W; or
 2. A multiple transverse mode output and having any of the following:
 - a. A “wall-plug efficiency” exceeding 18 % and an “average output power” exceeding 30 W; or

- b. An “average output power” exceeding 500 W;

Note: X.A.IV.005.e.2.b does not control multiple transverse mode, industrial “lasers” with output power less than or equal to 2 kW with a total mass greater than 1 200kg. For the purpose of this note, total mass includes all components required to operate the “laser”, e.g., “laser”, power supply, heat exchanger, but excludes external optics for beam conditioning and/or delivery.

- f. Non-“tunable” “lasers”, having a wavelength exceeding 1 400 nm, but not exceeding 1 555 nm and having any of the following:
1. An output energy exceeding 100 mJ per pulse and a pulsed “peak power” exceeding 1 W; or
 2. An average or CW output power exceeding 1 W;
- g. Free electron “lasers”.

Technical Note: For the purpose of X.A.IV.005 “Wall-plug efficiency” is defined as the ratio of “laser” output power (or “average output power”) to total electrical input power required to operate the “laser”, including the power supply/conditioning and thermal conditioning/heat exchanger.

X.A.IV.06 “Magnetometers”, “Superconductive” electromagnetic sensors, and specially designed components therefor, as follows:

- a. “Magnetometers”, other than those specified in the CML or in Regulation (EU) 2021/821, having a “sensitivity” lower (better) than 1,0 nT (rms) per square root Hz.

Technical Note: For the purposes of X.A.IV.006.a, “sensitivity” (noise level) is the root mean square of the device-limited noise floor which is the lowest signal that can be measured.

- b. “Superconductive” electromagnetic sensors, components manufactured from “superconductive” materials:
 1. Designed for operation at temperatures below the “critical temperature” of at least one of their “superconductive” constituents (including Josephson effect devices or “superconductive” quantum interference devices (SQUIDS));
 2. Designed for sensing electromagnetic field variations at frequencies of 1 kHz or less; and

3. Having any of the following characteristics:
 - a. Incorporating thin-film SQUIDS with a minimum feature size of less than 2 μm and with associated input and output coupling circuits;
 - b. Designed to operate with a magnetic field slew rate exceeding 1×10^6 magnetic flux quanta per second;
 - c. Designed to function without magnetic shielding in the earth's ambient magnetic field; or
 - d. Having a temperature coefficient less (smaller) than 0,1 magnetic flux quantum/K.

X.A.IV.07 Gravity meters (gravimeters) for ground use, other than those specified in the CML or in Regulation (EU) 2021/821, as follows:

- a. Having a static accuracy of less (better) than 100 μGal ; or
- b. Being of the quartz element (Worden) type.

- X.A.IV.08 Radar systems, equipment and major components, other than those specified in the CML or in Regulation (EU) 2021/821, and specially designed components therefor, as follows:
- a. Airborne radar equipment, other than those specified in the CML or in Regulation (EU) 2021/821, and specially designed components therefor;
 - b. “Space-qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment specially designed for surveying or for meteorological observation;
 - c. Millimeter wave enhanced vision radar imaging systems specially designed for rotary wing aircraft and having all of the following:
 1. Operates at a frequency of 94 GHz;
 2. An average output power of less than 20 mW;
 3. Radar beam width of 1 degree; and
 4. Operating range equal to or greater than 1 500 m.

- X.A.IV.09 Specific processing equipment, as follows:
- a. Seismic detection equipment not controlled by X.A.IV.009.c;
 - b. Radiation hardened TV cameras, other than those specified in the CML or in Regulation (EU) 2021/821; or
 - c. Seismic intrusion detection systems that detect, classify and determine the bearing on the source of a detected signal.
- X.B.IV.01 Equipment, including tools, dies, fixtures or gauges, and other specially designed components and accessories therefor, specially designed or modified for any of the following:
- a. For the manufacture or inspection of:
 1. Free electron “laser” magnet wigglers;
 2. Free electron “laser” photo injectors;
 - b. For the adjustment, to required tolerances, of the longitudinal magnetic field of free electron “lasers”.

X.C.IV.01 Optical sensing fibres that are modified structurally to have a “beat length” of less than 500 nm (high birefringence) or optical sensor materials not described in 6C002.b¹ and having a zinc content of equal to or more than 6 % by “mole fraction.”

Technical Note: For the purpose of X.C.IV.001:

- 1) “Mole fraction” is defined as the ratio of moles of ZnTe to the sum of the moles of CdTe and ZnTe present in the crystal.
- 2) “Beat length” is the distance over which two orthogonally polarised signals, initially in phase, must pass in order to achieve a 2 Pi radian(s) phase difference.

X.C.IV.02 Optical materials, as follows:

a. Low optical absorption materials, as follows:

1. Bulk fluoride compounds containing ingredients with a purity of 99,999 % or better; or

Note: X.C.IV.002.a.1 controls fluorides of zirconium or aluminium and variants.

¹ Ref. Annex I to Regulation (EU) 2021/821

2. Bulk fluoride glass made from compounds controlled by 6C004.e.1¹;
- b. “Optical fibre preforms” made from bulk fluoride compounds containing ingredients with a purity of 99,999 % or better, specially designed for the manufacture of “fluoride fibres” controlled by X.A.IV.004.b.

Technical Note: For the purpose of X.C.IV.002:

- 1) *“Fluoride fibres” are fibres manufactured from bulk fluoride compounds.*
- 2) *“Optical fibre preforms” are bars, ingots, or rods of glass, plastic or other materials that have been specially processed for use in fabricating optical fibres. The characteristics of the preform determine the basic parameters of the resultant drawn optical fibres.*

X.D.IV.01 “Software”, other than those specified in the CML or in Regulation (EU) 2021/821, specially designed for the “development”, “production”, or “use” of goods controlled by 6A002, 6A003¹, X.A.IV.001, X.A.IV.006, X.A.IV.007, or X.A.IV.008.

X.D.IV.02 “Software” specially designed for the “development” or “production” of equipment controlled by X.A.IV.002, X.A.IV.004, or X.A.IV.005.

¹ Ref. Annex I to Regulation (EU) 2021/821

- X.D.IV.03 Other “software”, as follows:
- a. Air Traffic Control (ATC) “software” application “programs” hosted on general purpose computers located at Air Traffic Control centres, and capable of automatically handing over primary radar target data (if not correlated with secondary surveillance radar (SSR) data) from the host ATC centre to another ATC centre;
 - b. “Software” specially designed for seismic intrusion detection systems in X.A.IV.009.c; or
 - c. “Source code” specially designed for seismic intrusion detection systems in X.A.IV.009.c.
- X.E.IV.01 “Technology” for the “development”, “production” or “use” of equipment controlled by X.A.IV.001, X.A.IV.006, X.A.IV.007, X.A.IV.008 or X.A.IV.009.c.
- X.E.IV.02 “Technology” for the “development” or “production” of equipment, materials or “software” controlled by X.A.IV.002, X.A.IV.004, or X.A.IV.005, X.B.IV.001, X.C.IV.001, X.C.IV.002, or X.D.IV.003.

X.E.IV.03 Other “technology” as follows:

- a. Optical fabrication technologies for serially producing optical components at a rate exceeding 10 m² of surface area per year on any single spindle and having all of the following:
 1. Area exceeding 1 m²; and
 2. Surface figure exceeding $\lambda/10$ (rms) at the designed wavelength;
- b. “Technology” for optical filters with a bandwidth equal to or less than 10 nm, a field of view (FOV) exceeding 40° and a resolution exceeding 0,75 line pairs per milliradian;
- c. “Technology” for the “development” or “production” of cameras controlled by X.A.IV.003;

- d. “Technology” “required” for the “development” or “production” of non-triaxial fluxgate “magnetometers” or non-triaxial fluxgate “magnetometer” systems, having any of the following:
1. “Sensitivity” lower (better) than 0,05 nT (rms) per square root Hz at frequencies of less than 1 Hz; or
 2. “Sensitivity” lower (better) than 1×10^{-3} nT (rms) per square root Hz at frequencies of 1 Hz or more.
- e. “Technology” “required” for the “development” or “production” of infrared up-conversion devices having all of the following:
1. A response in the wavelength range exceeding 700 nm but not exceeding 1 500 nm; and
 2. A combination of an infrared photodetector, light emitting diode (OLED), and nanocrystal to convert infrared light into visible light.

Technical Note: For the purposes of X.E.IV.003, “sensitivity” (or noise level) is the root mean square of the device-limited noise floor which is the lowest signal that can be measured.

Category V – Navigation and Avionics

X.A.V.001 Airborne communication equipment, all "aircraft" inertial navigation systems, and other avionic equipment, including components, other than those specified in the CML or in Regulation (EU) 2021/821.

Note 1: X.A.V.001. does not control headsets or microphones.

Note 2: X.A.V.001. does not control goods for the personal use of the natural persons.

X.B.V.001 Other equipment specially designed for the test, inspection, or "production" of navigation and avionics equipment.

X.D.V.001 "Software", other than specified in the CML or in Regulation (EU) 2021/821, for the "development", "production", or "use" of navigation, airborne communication and other avionics.

X.E.V.001 "Technology", other than specified in the CML or in Regulation (EU) 2021/821, for the "development", "production" or "use" of navigation, airborne communication, and other avionics equipment.

Category VI – Marine

X.A.VI.01 Vessels, marine systems or equipment, and specially designed components therefor, components and accessories as follows:

- a. Underwater vision systems, as follows:
 1. Television systems (comprising camera, lights, monitoring and signal transmission equipment) having a limiting resolution when measured in air of more than 500 lines and specially designed or modified for remote operation with a submersible vehicle; or
 2. Underwater television cameras having a limiting resolution when measured in air of more than 700 lines;

Technical Note: Limiting resolution in television is a measure of horizontal resolution usually expressed in terms of the maximum number of lines per picture height discriminated on a test chart, using IEEE Standard 208/1960 or any equivalent standard.

- b. Photographic still cameras specially designed or modified for underwater use, having a film format of 35 mm or larger, and having autofocus or remote focusing specially designed for underwater use;
- c. Stroboscopic light systems, specially designed or modified for underwater use, capable of a light output energy of more than 300 J per flash;
- d. Other underwater camera equipment, other than those specified in the CML or in Regulation (EU) 2021/821;
- e. Marine boilers designed to have any of the following characteristics:
 - 1. Heat release rate (at maximum rating) equal to or in excess of 1 966,4 kW/m³ of furnace volume; or
 - 2. Ratio of steam generated in kilogram per hour (at maximum rating) to the dry weight of the boiler in kilograms equal to or in excess of 37,6;
- f. Vessels (surface or underwater), including inflatable boats, and specially designed components therefor, other than those specified in the CML or in Regulation (EU) 2021/821;

Note: X.A.VI.001.f does not control vessels on temporary sojourn, used for private transport or for the transport of passengers or goods from or through the customs territory of the Union.

- g. Marine engines (both inboard and outboard) and submarine engines and specially designed components therefor, other than those specified in the CML or in Regulation (EU) 2021/821;
- h. Self-contained underwater breathing apparatus (scuba gear) and accessories therefor, other than those specified in the CML or in Regulation (EU) 2021/821;
- i. Life jackets, inflation cartridges, dive compasses and dive computers;

Note: X.A.VI.001.i does not control goods for the personal use of the natural persons.

- j. Underwater lights and propulsion equipment; or

Note: X.A.VI.001.j does not control goods for the personal use of the natural persons.

- k. Air compressors and filtration system specially designed for filling air cylinders.

X.D.VI.01 “Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by X.A.VI.001.

X.D.VI.02 “Software” specially designed for the operation of unmanned submersible vehicles used in the oil and gas industry.

X.E.VI.001 “Technology” for the “development”, “production” or “use” of equipment controlled by X.A.VI.001.

Category VII – Aerospace and Propulsion

X.A.VII.01 Diesel engines, and tractors and specially designed components therefor, other than those specified in the CML or in Regulation (EU) 2021/821:

- a. Diesel engines, other than those specified in the CML or in Regulation (EU) 2021/821, for trucks, tractors, and automotive applications, having an overall power output of 298 kW or more.
- b. Off highway wheel tractors of carriage capacity 9 tonnes or more; and major components and accessories, other than those specified in the CML or in Regulation (EU) 2021/821.

- c. Road tractors for semi-trailers, with single or tandem rear axles rated for 9 tonnes per axle or more and specially designed major components.

Note: X.A.VII.001.b and X.A.VII.001.c do not control vehicles on temporary sojourn, used for private transport or for the transport of passengers or goods from or through the customs territory of the Union.

X.A.VII.02 Gas turbine engines and components, other than those specified in the CML or in Regulation (EU) 2021/821.

- a. Not used.
- b. Not used.
- c. Aero gas turbine engines and components specially designed therefor.
- d. Not used.
- e. Pressurised aircraft breathing equipment components specially designed therefor, other than those specified in the CML or in Regulation (EU) 2021/821.

X.A.VII.03 Aircraft engines, other than those specified in X.A.VII.002, the CML or in Regulation (EU) 2021/821, as follows:

- a. Reciprocating or rotary internal combustion piston engines; or
- b. Electric engines.

Technical Note: For the purpose of X.A.VII.003 aircrafts includes: aeroplanes, UAVs, helicopters, autogyros, hybrid aircrafts or radio-controlled models.

X.B.VII.01 Vibration test equipment and specially designed components, other than those specified in the CML or in Regulation (EU) 2021/821.

Note: X.B.VII.001. controls only equipment for the “development” or “production”. It does not control condition monitoring systems.

X.B.VII.02 Specially designed equipment, tooling or fixtures for manufacturing or measuring gas turbine blades, vanes or tip shroud castings, as follows:

- a. Automated equipment using non-mechanical methods for measuring airfoil wall thickness;

- b. Tooling, fixtures or measuring equipment for the “laser”, water jet or ECM/EDM hole drilling processes controlled by 9E003.c¹;
- c. Ceramic core leaching equipment;
- d. Ceramic core manufacturing equipment or tools;
- e. Ceramic shell wax pattern preparation equipment;
- f. Ceramic shell burn out or firing equipment.

X.D.VII.01 “Software”, other than those specified in the CML or in Regulation (EU) 2021/821, for the “development” or “production” of equipment controlled by X.A.VII.001 or X.B.VII.001.

X.D.VII.02 “Software”, for the “development” or “production” of equipment controlled by X.A.VII.002 or X.B.VII.002.

X.E.VII.01 “Technology”, other than those specified in the CML or in Regulation (EU) 2021/821, for the “development” or “production” or “use” of equipment controlled by X.A.VII.001 or X.B.VII.001.

¹ Ref. Annex I to Regulation (EU) 2021/821

X.E.VII.02 “Technology”, for the “development”, “production” or “use” of equipment controlled by X.A.VII.002 or X.B.VII.002.

X.E.VII.03 Other “technology”, not described by 9E003¹, as follows:

- a. Rotor blade tip clearance control systems employing active compensating casing “technology” limited to a design and development data base; or
- b. Gas bearing for turbine engine rotor assemblies.

Category VIII – Miscellaneous items

X.A.VIII.001 Equipment for oil production or oil exploration as follows:

- a. Drill head integrated measurement equipment, including inertial navigation systems for measurement while drilling (MWD);
- b. Gas monitoring systems and detectors therefor, designed for continuous operation and detection of hydrogen sulphide;
- c. Equipment for seismological measurements, including reflection seismics and seismic vibrators;
- d. Sediment echo sounders.

¹ Ref. Annex I to Regulation (EU) 2021/821

X.A.VIII.02 Equipment, “electronic assemblies” and components, specially designed for quantum computers, quantum electronics, quantum sensors, quantum processing units, qubit circuits, qubit devices or quantum radar systems, including pockels cells.

Note 1: Quantum computers perform computations that harness the collective properties of quantum states, such as superposition, interference and entanglement.

Note 2: Units, circuits and devices include but are not limited to superconducting circuits, Quantum annealing, Ion Trap, photonic interaction, silicon/spin, cold atoms.

X.A.VIII.03 Microscopes, related equipment and detectors as follows:

- a. Scanning electron microscopes (SEM);
- b. Scanning auger microscopes;
- c. Transmission electron microscopes (TEM);
- d. Atomic force microscopes (AFM);

- e. Scanning force microscopes (SFM);
- f. Equipment and detectors, specially designed for use with the microscopes specified in X.A.VIII.003.a to X.A.VIII.003.e, employing any of the following material analysis techniques:
 - 1. X-ray photo spectroscopy (XPS);
 - 2. Energy-dispersive X-ray spectroscopy (EDX, EDS) or
 - 3. Electron spectroscopy for chemical analysis (ESCA).

X.A.VIII.04 Collector equipment for metal ores in deep seabed.

X.A.VIII.005 Manufacturing equipment and machine tools as follows:

- a. Additive manufacturing equipment for the “production” of metal parts;

Note: X.A.VIII.005.a only applies to the following systems:

- 1. *Powder-bed systems using selective laser melting (SLM), laser curing, direct metal laser sintering (DMLS) or electron beam melting (EBM); or*
- 2. *Powder-fed systems using laser cladding, direct energy deposition or laser metal deposition.*

- b. Additive manufacturing equipment for “energetic materials”, including equipment using ultrasonic extrusion;
 - c. Vat photopolymerization (VPP) additive manufacturing equipment using stereo lithography (SLA) or digital light processing (DLP).
- X.A.VIII.06 Equipment for the “production” of printed electronics for organic light emitting diodes (OLED), organic field-effect transistors (OFET) or organic photovoltaic cells (OPVC).
- X.A.VIII.07 Equipment for the “production” of microelectromechanical systems (MEMS) using the mechanical properties of silicon, including sensors in chip format like pressure membranes, bending beams or micro adjustment devices.
- X.A.VIII.08 Equipment, specially designed for the production of E-Fuels (electrofuels and synthetic fuels) or ultra efficient solar cells (efficiency > 30 %).

X.A.VIII.09 Equipment for Ultra-High-Vacuum (UHV) as follows:

- a. UHV pumps (sublimation, turbomolecular, diffusion, cryogenic, ion getter);
- b. UHV pressure gauges.

Note: UHV means 100 nanoPascals (nPa) or lower.

X.A.VIII.10 “Cryogenic refrigeration systems” designed to maintain temperatures below 1,1 K for 48 hrs or more and related cryogenic refrigeration equipment as follows:

- a. Pulse Tubes;
- b. Cryostats;
- c. Dewars;
- d. Gas Handling System (GHS);
- e. Compressors; or
- f. Control Units.

Note: “Cryogenic refrigeration systems” include but are not limited to Dilution Refrigeration, Adiabatic Demagnetisation Refrigerators and Laser Cooling Systems.

X.A.VIII.11 “Decapsulation” equipment for semiconductor devices.

Note: “Decapsulation” is the removal of a cap, lid, or encapsulating material from a packaged integrated circuit by mechanical, thermal, or chemical means.

X.A.VIII.12 High Quantum Efficiency (QE) photodetectors with a QE greater than 80 % in the wavelength range exceeding 400 nm but not exceeding 1 600 nm.

X.A.VIII.013 Numerical controlled machine tools, having one or more linear axis with a travel length greater than 8 000 mm.

X.A.VIII.14 Water cannon systems for riot or crowd control, and components specially designed therefor.

Note: X.A.VIII.014 water cannon systems include, for example: vehicles or fixed stations equipped with remotely operated water cannon that are designed to protect the operator from an outside riot with features such as armor, shatter resistant windows, metal screens, bull-bars, or run-flat tires. Components specially designed for water cannons may include, for example: deck gun water nozzles, pumps, reservoirs, cameras, and lights that are hardened or shielded against projectiles, elevating masts for those items, and teleoperation systems for those items.

- X.A.VIII.15 Law enforcement striking weapons, including saps, police batons, side handle batons, tonfas, sjamboks, and whips.
- X.A.VIII.16 Police helmets and shields; and specially designed components, other than those specified in the CML or in Regulation (EU) 2021/821.
- X.A.VIII.17 Law enforcement restraint devices, including leg irons, shackles, and handcuffs; straight jackets; stun cuffs; shock belts; shock sleeves; multipoint restraint devices such as restraint chairs; and specially designed components and accessories, other than those specified in the CML or in Regulation (EU) 2021/821.

Note: X.A.VIII.017 applies to restraint devices used in law enforcement activities. It does not apply to medical devices that are equipped to restrain patient movement during medical procedures. It does not apply to devices that confine memory impaired patients to appropriate medical facilities. It does not apply to safety equipment such as safety belts or child automobile safety seats.

X.A.VIII.18 Oil and gas exploration equipment, “software”, and data, as follows (see List of Items Controlled):

- a. Not used.
- b. Hydraulic fracturing items, as follows:
 1. Hydraulic fracturing design and analysis “software” and data;
 2. Hydraulic fracturing “proppant”, “fracking fluid”, and chemical additives therefor; or
 3. High pressure pumps.

Technical Note:

A “proppant” is a solid material, typically treated sand or man-made ceramic materials, designed to keep an induced hydraulic fracture open, during or following a fracturing treatment. It is added to a “fracking fluid” which may vary in composition depending on the type of fracturing used, and can be gel, foam or slickwater-based.

X.A.VIII.19 Specific processing equipment, as follows (see List of Items Controlled):

- a. Ring magnets;
- b. Not used.

X.A.VIII.20 Weapons and devices designed for the purpose of riot control or self-protection, as follows:

- a. Portable electric discharge weapons that can target only one individual each time an electric shock is administered, including but not limited to electric shock batons, electric shock shields, stun guns and electric shock dart guns;
- b. Kits containing all essential components for assembly of portable electric discharge weapons controlled by item X.A.VIII.020.a; or

Note: The following goods are considered to be essential components:

1. *The unit producing an electric shock;*
 2. *The switch, whether or not on a remote control; and*
 3. *The electrodes or, where applicable, the wires through which the electrical shock is to be administered.*
- c. Fixed or mountable electric discharge weapons that cover a wide area and can target multiple individuals with electrical shocks.

X.A.VIII.21 Weapons and equipment disseminating incapacitating or irritating chemical substances for the purpose of riot control or self-protection and certain related substances, as follows:

- a. Portable weapons and equipment which either administer a dose of an incapacitating or irritating chemical substance that targets one individual or disseminate a dose of such substance affecting a small area, e.g. in the form of a spray fog or cloud, when the chemical substance is administered or disseminated;

Note 1: This item does not control equipment controlled by item ML7(e) of the CML of the European Union.

Note 2: This item does not control individual portable equipment, even if containing a chemical substance, when accompanying their user for the user's own personal protection.

Note 3: In addition to relevant chemical substances, such as riot control agents or PAVA, the goods controlled by items X.A.VIII.021.c and X.A.VIII.021.d shall be deemed to be incapacitating or irritating chemical substances.

- b. Pelargonic acid vanillylamide (PAVA) (CAS 2444-46-4);
- c. Oleoresin capsicum (OC) (CAS 8023-77-6);
- d. Mixtures containing at least 0,3 % by weight of PAVA or OC and a solvent (such as ethanol, 1-propanol or hexane), which could be administered as such as incapacitating or irritating agents, in particular in aerosols and in liquid form, or used for manufacturing of incapacitating or irritating agents;

Note 1: This item does not control sauces and preparations therefor, soups or preparations therefor and mixed condiments or seasonings, provided that PAVA or OC is not the only constituent flavour in them.

Note 2: This item does not control medicinal products for which a marketing authorisation has been granted in accordance with Union law.

- e. Fixed equipment for the dissemination of incapacitating or irritating chemical substances, which can be attached to a wall or to a ceiling inside a building, comprises a canister of irritating or incapacitating chemical agents and is activated using a remote control system; or

Note: In addition to relevant chemical substances, such as riot control agents or PAVA, the goods controlled by items X.A.VIII.021.c and X.A.VIII.021.d shall be deemed to be incapacitating or irritating chemical substances.

- f. Fixed or mountable equipment for the dissemination of incapacitating or irritating chemical agents that covers a wide area and is not designed to be attached to a wall or to a ceiling inside a building;

Note 1: This item does not control equipment controlled by item ML7(e) of the CML of the European Union.

Note 2: In addition to relevant chemical substances, such as riot control agents or PAVA, the goods controlled by items X.A.VIII.021.c and X.A.VIII.021.d shall be deemed to be incapacitating or irritating chemical substances.

g. Other irritating chemical substances, and mixtures thereof containing at least 0,3 % by weight of the active substance, as follows:

1. Dibenzo[b,f][1,4]oxazepine (CR) (CAS 257-07-8);
2. 8-Methyl-N-vanillyl-trans-6-nonenamide (capsaicin) (CAS 404-86-4);
3. 8-Methyl-N-vanillylnonamide (dihydrocapsaicin) (CAS 19408-84-5);
4. N-Vanillyl-9-methyldec-7-(E)-enamide (homocapsaicin) (CAS 58493-48-4);
5. N-Vanillyl-9-methyldecanamide (homodihydrocapsaicin) (CAS 20279-06-5);
6. N-Vanillyl-7-methyloctanamide (nordihydrocapsaicin) (CAS 28789-35-7);
7. 4-Nonanolylmorpholine (MPA) (CAS 5299-64-9);
8. Cis-4-acetylamino-dicyclohexylmethane (CAS 37794-87-9);
9. N,N'-Bis(isopropyl)ethylenediimine; or
10. N,N'-Bis(tert-butyl)ethylenediimine.

X.A.VIII.22 Products which could be used for the execution of human beings by means of lethal injection, as follows:

a. Short and intermediate acting barbiturate anaesthetic agents including, but not limited to:

1. Amobarbital (CAS 57-43-2);
2. Amobarbital sodium salt (CAS 64-43-7);
3. Pentobarbital (CAS 76-74-4);
4. Pentobarbital sodium salt (CAS 57-33-0);
5. Secobarbital (CAS 76-73-3);
6. Secobarbital sodium salt (CAS 309-43-3);
7. Thiopental (CAS 76-75-5); or
8. Thiopental sodium salt (CAS 71-73-8), also known as thiopentone sodium;

b. Products containing one of the anaesthetic agents listed under X.A.VIII.022.a.

X.A.VIII.23 Nettings, canopies, tents, blankets and apparel, specially designed for camouflage.

X.B.VIII.01 Specific processing equipment, as follows (see List of Items Controlled):

- a. Hot cells; or
- b. Glove boxes suitable for use with radioactive materials.

X.C.VIII.01 Metal powders and metal alloy powders, usable for any of the systems listed in

X.A.VIII.005.a.

X.C.VIII.02 Advanced materials as follows:

- a. Materials for cloaking or adaptive camouflage;
- b. Metamaterials, e.g. with a negative refractive index;
- c. Not used;
- d. High entropy alloys (HEA);
- e. Heusler compounds; or
- f. Kitaev materials, including Kitaev spin liquids.

X.C.VIII.03 Conjugated polymers (conductive, semiconductive, electroluminescent) for printed or organic electronics.

X.C.VIII.04 Energetic materials as follows and mixtures thereof:

- a. Ammonium picrate (CAS 131-74-8);
- b. Black powder;
- c. Hexanitrodiphenylamine (CAS 131-73-7);
- d. Difluoroamine (CAS 10405-27-3);
- e. Nitrostarch (CAS 9056-38-6);
- f. Not used;
- g. Tetranitronaphthalene;
- h. Trinitroanisole;
- i. Trinitronaphthalene;
- j. Trinitroxylyene;
- k. N-pyrrolidinone; 1-methyl-2-pyrrolidinone (CAS 872-50-4);

- l. Dioctylmaleate (CAS 142-16-5);
- m. Ethylhexylacrylate (CAS 103-11-7);
- n. Triethylaluminium (TEA) (CAS 97-93-8), trimethylaluminium (TMA) (CAS 75-24-1), and other pyrophoric metal alkyls and aryls of lithium, sodium, magnesium, zinc or boron;
- o. Nitrocellulose (CAS 9004-70-0);
- p. Nitroglycerin (or glyceroltrinitrate, trinitroglycerine) (NG) (CAS 55-63-0);
- q. 2,4,6-trinitrotoluene (TNT) (CAS 118-96-7);
- r. Ethylenediaminedinitrate (EDDN) (CAS 20829-66-7);
- s. Pentaerythritoltetranitrate (PETN) (CAS 78-11-5);
- t. Lead azide (CAS 13424-46-9), normal lead styphnate (CAS 15245-44-0) and basic lead styphnate (CAS 12403-82-6), and primary explosives or priming compositions containing azides or azide complexes;
- u. Not used;

- v. Not used;
- w. Diethyldiphenylurea (CAS 85-98-3); dimethyldiphenylurea (CAS 611-92-7); methylethyldiphenyl urea.
- x. N,N-diphenylurea (unsymmetrical diphenylurea) (CAS 603-54-3);
- y. Methyl-N,N-diphenylurea (methyl unsymmetrical diphenylurea) (CAS 13114-72-2);
- z. Ethyl-N,N-diphenylurea (ethyl unsymmetrical diphenylurea) (CAS 64544-71-4);
- aa. Not used;
- bb. 4-Nitrodiphenylamine (4-NDPA)(CAS 836-30-6);
- cc. 2,2-dinitropropanol (CAS 918-52-5); or
- dd. Not used.

X.D.VIII.01 "Software", specially designed for the "development", "production" or "use" of equipment specified in X.A.VIII.005 to X.A.VIII.0013.

X.D.VIII.02 “Software”, specially designed for the “development”, “production” or “use” of equipment, “electronic assemblies” or components specified in X.A.VIII.002.

X.D.VIII.03 “Software” for digital twins of additive manufacturing products or for the determination of the reliability of additive manufacturing products.

X.D.VIII.04 “Software” specially designed for the “development,” “production” or “use” of commodities controlled by X.A.VIII.014.

X.D.VIII.05 Specific “software”, as follows (see List of Items Controlled):

- a. “Software” for neutronic calculations/modeling;
- b. “Software” for radiation transport calculations/modeling; or
- c. “Software” for hydrodynamic calculations/modeling.

X.E.VIII.01 “Technology” for the “development”, “production” or “use” of equipment specified in X.A.VIII.001 to X.A.VIII.0013.

- X.E.VIII.02 “Technology” for the “development”, “production” or “use” of materials specified in X.C.VIII.002 or X.C.VIII.003
- X.E.VIII.03 “Technology” for digital twins of additive manufacturing products, for the determination of the reliability of additive manufacturing products or for “software” specified in X.D.VIII.003.
- X.E.VIII.04 “Technology” for the “development”, “production” or “use” of “software” specified in X.D.VIII.001 to X.D.VIII.002.
- X.E.VIII.05 “Technology” “required” for the “development” or “production” of commodities controlled by X.A.VIII.014.
- X.E.VIII.06 “Technology” exclusively for the “development” or “production” of equipment controlled by X.A.VIII.017.

Category IX – Special Materials and Related Equipment

X.A.IX.01 Chemical agents, including tear gas formulation containing 1 % or less of orthochlorobenzalmalononitrile (CS), or 1 % or less of chloroacetophenone (CN), except in individual containers with a net weight of 20 g or less; liquid pepper except when packaged in individual containers with a net weight of 85,05 g or less; smoke bombs; non-irritant smoke flares, canisters, grenades and charges; and other pyrotechnic articles having dual military and commercial use, and components specially designed therefor, other than those specified in the CML or in Regulation (EU) 2021/821.

X.A.IX.02 Fingerprinting powders, dyes, and inks.

X.A.IX.03 Protective and detection equipment not specially designed for military use and not controlled by 1A004 or 2B351¹, as follows (see List of Items Controlled), and components not specially designed for military use and not controlled by 1A004 or 2B351 therefor:

- a. Personal radiation monitoring dosimeters; or
- b. Equipment limited by design or function to protect against hazards specific to civil industries, such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or to the food industry.

¹ Ref. Annex I to Regulation (EU) 2021/821

Note: X.A.IX.003 does not control items for protection against chemical or biological agents that are consumer goods, packaged for retail sale or personal use, or medical products, such as latex exam gloves, latex surgical gloves, liquid disinfectant soap, disposable surgical drapes, surgical gowns, surgical foot covers, and surgical masks.

- X.A.IX.04 Specific processing equipment, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):
- a. Radiation detection, monitoring and measurement equipment, other than those specified in the CML or in Regulation (EU) 2021/821; or
 - b. Radiographic detection equipment such as X-ray converters, and storage phosphor image plates.
- X.B.IX.01 Specific processing equipment, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):
- a. Electrolytic cells for fluorine production, other than those specified in the CML or in Regulation (EU) 2021/821;

- b. Particle accelerators;
- c. Industrial process control hardware/systems designed for power industries, other than those specified in the CML or in Regulation (EU) 2021/821;
- d. Freon and chilled water cooling systems capable of continuous cooling duties of 29,3 kW or greater; or
- e. Equipment for the production of structural composites, fibres, prepregs and preforms.

X.C.IX.01 Separate chemically defined compounds according to Note 1 to Chapters 28 and 29 of the Combined Nomenclature:

- a. In concentrations of 95 % weight or greater, as follows:
 - 1. Ethylene dichloride (CAS 107-06-2);
 - 2. Nitromethane (CAS 75-52-5);
 - 3. Picric acid (CAS 88-89-1);
 - 4. Aluminium chloride (CAS 7446-70-0);

5. Arsenic (CAS 7440-38-2);
6. Arsenic trioxide (CAS 1327-53-3);
7. Bis(2-chloroethyl)ethylamine hydrochloride (CAS 3590-07-6);
8. Bis(2-chloroethyl)methylamine hydrochloride (CAS 55-86-7);
9. Tris(2-chloroethyl)amine hydrochloride (CAS 817-09-4);
10. Tributylphosphite (CAS 102-85-2);
11. Isocyanatomethane (CAS 624-83-9);
12. Quinaldine (CAS 91-63-4);
13. 2-bromochloroethane (CAS 107-04-0);
14. Benzil (CAS 134-81-6);
15. Diethyl ether (CAS 60-29-7);
16. Dimethyl ether (CAS 115-10-6);

17. Dimethylaminoethanol (CAS 108-01-0);
18. 2-methoxyethanol (CAS 109-86-4);
19. Butyrylcholinesterase (BCHE);
20. Diethylenetriamine (CAS 111-40-0);
21. Dichloromethane (CAS 75-09-2);
22. Dimethylaniline (CAS 121-69-7);
23. Ethyl bromide (CAS 74-96-4);
24. Ethyl chloride (CAS 75-00-3);
25. Ethylamine (CAS 75-04-7);
26. Hexamine (CAS 100-97-0);
27. Isopropanol (CAS 67-63-0);
28. Isopropyl bromide (CAS 75-26-3);

29. Isopropyl ether (CAS 108-20-3);
30. Methylamine (CAS 74-89-5);
31. Methyl bromide (CAS 74-83-9);
32. Monoisopropylamine (CAS 75-31-0);
33. Obidoxime chloride (CAS 114-90-9);
34. Potassium bromide (CAS 7758-02-3);
35. Pyridine (CAS 110-86-1);
36. Pyridostigmine bromide (CAS 101-26-8);
37. Sodium bromide (CAS 7647-15-6);
38. Sodium metal (CAS 7440-23-5);
39. Tributylamine (CAS 102-82-9);
40. Triethylamine (CAS 121-44-8); or
41. Trimethylamine (CAS 75-50-3).

b. In concentrations of 90 % weight or greater, as follows:

1. Acetone (CAS 67-64-1);
2. Acetylene (CAS 74-86-2);
3. Ammonia (CAS 7664-41-7);
4. Antimony (CAS 7440-36-0);
5. Benzaldehyde (CAS 100-52-7);
6. Benzoin (CAS 119-53-9);
7. 1-Butanol (CAS 71-36-3);
8. 2-Butanol (CAS 78-92-2);
9. Iso-Butanol (CAS 78-83-1);
10. Tert-Butanol (CAS 75-65-0);
11. Calcium carbide (CAS 75-20-7);
12. Carbon monoxide (CAS 630-08-0);

13. Chlorine (CAS 7782-50-5);
14. Cyclohexanol (CAS 108-93-0);
15. Dicyclohexylamine (CAS 101-83-7);
16. Ethanol (CAS 64-17-5);
17. Ethylene (CAS 74-85-1);
18. Ethylene oxide (CAS 75-21-8);
19. Fluoroapatite (CAS 1306-05-4);
20. Hydrogen chloride (CAS 7647-01-0);
21. Hydrogen sulfide (CAS 7783-06-4);
22. Mandelic acid (CAS 90-64-2);
23. Methanol (CAS 67-56-1);
24. Methyl chloride (CAS 74-87-3);
25. Methyl iodide (CAS 74-88-4);

26. Methyl mercaptan (CAS 74-93-1);
27. Monoethyleneglycol (CAS 107-21-1);
28. Oxalyl chloride (CAS 79-37-8);
29. Potassium sulphide (CAS 1312-73-8);
30. Potassium thiocyanate (CAS 333-20-0);
31. Sodium hypochlorite (CAS 7681-52-9);
32. Sulphur (CAS 7704-34-9);
33. Sulphur dioxide (CAS 7446-09-5);
34. Sulphur trioxide (CAS 7446-11-9);
35. Thiophosphoryl chloride (CAS 3982-91-0);
36. Tri-isobutyl phosphite (CAS 1606-96-8);
37. White phosphorus (CAS 12185-10-3);
38. Yellow phosphorus (CAS 7723-14-0);

39. Mercury (CAS 7439-97-6);
40. Barium chloride (CAS 10361-37-2);
41. Sulphuric acid (CAS 7664-93-9);
42. 3,3-dimethyl-1-butene (CAS 558-37-2);
43. 2,2-dimethylpropanal (CAS 630-19-3);
44. 2,2-dimethylpropylchloride (CAS 753-89-9);
45. 2-methylbutene (CAS 26760-64-5);
46. 2-chloro-3-methylbutane (CAS 631-65-2);
47. 2,3-dimethyl-2,3-butanediol (CAS 76-09-5);
48. 2-methyl-2-butene (CAS 513-35-9);
49. Butyl lithium (CAS 109-72-8);
50. Bromo(methyl)magnesium (CAS 75-16-1);

51. Formaldehyde (CAS 50-00-0);
52. Diethanolamine (CAS 111-42-2);
53. Dimethylcarbonate (CAS 616-38-6);
54. Methyldiethanolamine hydrochloride (CAS 54060-15-0);
55. Diethylamine hydrochloride (CAS 660-68-4);
56. Diisopropylamine hydrochloride (CAS 819-79-4);
57. 3-Quinuclidinone hydrochloride (CAS 1193-65-3);
58. 3-Quinuclidinol hydrochloride (CAS 6238-13-7);
59. (R)-3-Quinuclidinol hydrochloride (CAS 42437-96-7);
60. N,N-Diethylaminoethanol hydrochloride (CAS 14426-20-1);
61. Dialkyl(\leq C10) chlorophosphates;
62. Dialkyl(\leq C10) fluorophosphates;
63. N,N-Methylisopropylacetamide (CAS 1339185-57-7);

64. N,N-Methylethylacetamide (CAS 1339632-40-4);
65. N,N-Ethylisopropylacetamide (CAS 1339156-10-3);
66. N,N-Methylpropylacetamide (CAS 1344238-28-3);
67. N,N-Ethylpropylacetamide (CAS 1339737-43-7);
68. N,N-Isopropylpropylacetamide (CAS 1341389-98-7);
69. N,N-Methylethylpropanamide (CAS 1339424-26-8);
70. N,N-Ethylisopropylpropanamide (CAS 1344354-09-1);
71. N,N-Methylpropylpropanamide (CAS 1340216-25-2);
72. N,N-Ethylpropylpropanamide (CAS 1341493-60-4);
73. N,N-Isopropylpropylpropanamide (CAS 1343225-93-3);
74. N,N-Methylisopropylpropanamide (CAS 1339042-55-5);
75. N,N-Methylethylbutanamide (CAS 1341049-51-1);
76. N,N-Methylpropylbutanamide (CAS 1343721-02-7);
77. N,N-Ethylpropylbutanamide (CAS 1343806-12-1);

78. N,N-Isopropylpropylbutanamide (CAS 1343316-02-8);
79. N,N-Methylisopropylbutanamide (CAS 1340219-94-4);
80. N,N-Ethylisopropylbutanamide (CAS 1342204-10-7);
81. N,N-Methylethylisobutanamide (CAS 1342365-47-2);
82. N,N-Ethylpropylisobutanamide (CAS 1342566-58-8);
83. N,N-Methylpropylisobutanamide (CAS 1342270-21-6);
84. N,N-Isopropylpropylisobutanamide (CAS 1342156-11-9);
85. N,N-Methylisopropylisobutanamide (CAS 1341992-96-8);
86. N,N-Ethylisopropylisobutanamide (CAS 1339048-76-8);
87. N,N-Dimethylacetamide hydrobromide (CAS 1801188-12-4);
88. N,N-Dimethylacetamide hydrochloride (CAS 2909-15-1);
89. N,N-Diethylacetamide hydrochloride (CAS 91400-32-7);
90. N,N-Diethylacetamide hydrobromide (CAS 78053-54-0);
91. N,N-Dimethylpropanamide dihydrochloride (CAS 79972-73-9); or
92. N,N-Dimethylpropanamide hydrochloride (CAS 56776-15-9).

X.C.IX.02 Fentanyl and its derivatives Alfentanil, Sufentanil, Remifentanil, Carfentanil, and salts thereof.

Note: X.C.IX.002 does not control products identified as consumer goods packaged for retail sale for personal use or packaged for individual use.

X.C.IX.03 Chemical precursors to Central Nervous System Acting Chemicals, as follows:

- a. 4-anilino-N-phenethylpiperidine (CAS 21409-26-7); or
- b. N-phenethyl-4-piperidone (CAS 39742-60-4).

Notes:

1. *X.C.IX.003 does not control "chemical mixtures" containing one or more of the chemicals specified in entry X.C.IX.003 in which no individually specified chemical constitutes more than 1 % by the weight of the mixture.*
2. *X.C.IX.003 does not control products identified as consumer goods packaged for retail sale for personal use or packaged for individual use.*

X.C.IX.04 Fibrous and filamentary materials, not controlled by 1C010 or 1C210¹, for use in "composite" structures and with a specific modulus of $3,18 \times 10^6$ m or greater and a specific tensile strength of $7,62 \times 10^4$ m or greater.

¹ Ref. Annex I to Regulation (EU) 2021/821

- X.C.IX.05 “Vaccines”, “immunotoxins”, “medical products”, “diagnostic and food testing kits”, as follows (see List of Items controlled):
- a. “Vaccines” containing, or designed for use against, items controlled by 1C351, 1C353 or 1C354;
 - b. “Immunotoxins” containing items controlled by 1C351.d; or
 - c. “Medical products” that contain any of the following:
 1. “Toxins” controlled by 1C351.d (except for botulinum toxins controlled by 1C351.d.1, conotoxins controlled by 1C351.d.3, or items controlled for CW reasons under 1C351.d.4 or .d.5); or
 2. Genetically modified organisms or genetic elements controlled by 1C353.a.3 (except for those that contain, or code for, botulinum toxins controlled by 1C351.d.1 or conotoxins controlled by 1C351.d.3);
 - d. “Medical products” not controlled by X.C.IX.005.c that contain any of the following:
 1. Botulinum toxins controlled by 1C351.d.1;

2. Conotoxins controlled by 1C351.d.3; or
 3. Genetically modified organisms or genetic elements controlled by 1C353.a.3 that contain, or code for, botulinum toxins controlled by 1C351.d.1 or conotoxins controlled by 1C351.d.3; or
- e. “Diagnostic and food testing kits” containing items controlled by 1C351.d (except for items controlled for CW reasons under 1C351.d.4 or .d.5).

Technical Notes:

1. “Medical products” are: (1) pharmaceutical formulations designed for testing and human (or veterinary) administration in the treatment of medical conditions, (2) prepackaged for distribution as clinical or medical products, and (3) approved by the European Medicines Agency (EMA) either to be marketed as clinical or medical products or for use as research new drug.
2. “Diagnostic and food testing kits” are specifically developed, packaged and marketed for diagnostic or public health purposes. Biological toxins in any other configuration, including bulk shipments, or for any other end-uses are controlled by 1C351.

- X.C.IX.06 Commercial charges and devices containing energetic materials, other than those specified in the CML or in Regulation (EU) 2021/821, and nitrogen trifluoride in a gaseous state (see List of Items Controlled):
- a. Shaped charges specially designed for oil well operations, utilizing one charge functioning along a single axis, that upon detonation produce a hole, and
 1. Contain any formulation of “controlled materials”;
 2. Have only a uniform shaped conical liner with an included angle of 90 degrees or less;
 3. Contain more than 0,010 kg but less than or equal to 0,090 kg of “controlled materials”; and
 4. Have a diameter not exceeding 114,3 cm;
 - b. Shaped charges specially designed for oil well operations containing less than or equal to 0,010 kg of “controlled materials”;
 - c. Detonation cord or shock tubes containing less than or equal to 0,064 kg/m of “controlled materials”;

- d. Cartridge power devices, that contain less than or equal to 0,70 kg of “controlled materials” in the deflagration material;
- e. Detonators (electric or nonelectric) and assemblies thereof, that contain less than or equal to 0,01 kg of “controlled materials”;
- f. Igniters, that contain less than or equal to 0,01 kg of “controlled materials”;
- g. Oil well cartridges, that contain less than or equal to 0,015 kg of controlled “energetic materials”;
- h. Commercial cast or pressed boosters containing less than or equal to 1,0 kg of “controlled materials”;
- i. Commercial prefabricated slurries and emulsions containing less than or equal to 10,0 kg and less than or equal to 35 % by weight of ML8 “controlled materials”;
- j. Cutters and severing tools containing less than or equal to 3,5 kg of “controlled materials”;
- k. Pyrotechnic devices when designed exclusively for commercial purposes (e.g., theatrical stages, motion picture special effects, and fireworks displays) and containing less than or equal to 3,0 kg of “controlled materials”;

- l. Other commercial explosive devices and charges not controlled by X.C.IX.006.a through .k containing less than or equal to 1,0 kg of “controlled materials”; or

Note: X.C.IX.006.l includes automotive safety devices; extinguishing systems; cartridges for riveting guns; explosive charges for agricultural, oil and gas operations, sporting goods, commercial mining, or public works purposes; and delay tubes used in the assembly of commercial explosive devices.

- m. Nitrogen trifluoride (NF₃) in a gaseous state.

Notes:

1. “Controlled materials” means controlled energetic materials (see IC011, IC111, IC239 or ML8).
2. Nitrogen trifluoride when not in a gaseous state is controlled under ML8.d by the CML.

X.C.IX.07 Mixtures not controlled by 1C350 or 1C450¹ that contain chemicals controlled by 1C350 or 1C450 and medical, analytical, diagnostic, and food testing kits not controlled by 1C350 or 1C450 that contain chemicals controlled by 1C350, as follows (see List of Items Controlled):

- a. Mixtures containing the following concentrations of precursor chemicals controlled by 1C350:
 1. Mixtures containing 10 % or less, by weight, of any single CWC Schedule 2 chemical controlled by 1C350;
 2. Mixtures containing less than 30 %, by weight, of:
 - a. Any single CWC Schedule 3 chemical controlled by 1C350; or
 - b. Any single non-CWC precursor chemical controlled by 1C350;

¹ Ref. Annex I to Regulation (EU) 2021/821

- b. Mixtures containing the following concentrations of toxic or precursor chemicals controlled by 1C450:
 - 1. Mixtures containing the following concentrations of CWC Schedule 2 chemicals controlled by 1C450:
 - a. Mixtures containing 1 % or less, by weight, of any single CWC Schedule 2 chemical controlled by 1C450.a.1 and a.2 (i.e., mixtures containing Amiton or PFIB); or
 - b. Mixtures containing 10 % or less, by weight, of any single CWC Schedule 2 chemical controlled by 1C450.b.1, b.2, b.3, b.4, b.5, or b.6;
 - 2. Mixtures containing less than 30 %, by weight, of any single CWC Schedule 3 chemical controlled by 1C450.a.4, a.5., a.6., a.7, or 1C450.b.8;
- c. “Medical, analytical, diagnostic, and food testing kits” that contain precursor chemicals controlled by 1C350 in an amount not exceeding 300 grams per chemical.

Technical Note:

For the purpose of this entry, “medical, analytical, diagnostic, and food testing kits” are pre-packaged materials of defined composition that are specifically developed, packaged and marketed for medical, analytical, diagnostic, or public health purposes. Replacement reagents for medical, analytical, diagnostic, and food testing kits described in X.C.IX.007.c are controlled by 1C350 if the reagents contain at least one of the precursor chemicals identified in that entry in concentrations equal to or greater than the control levels for mixtures indicated in 1C350.

X.C.IX.08 Non-fluorinated polymeric substances, not controlled by 1C008¹, as follows (see List of Items Controlled):

a. Polyarylene ether ketones, as follows:

1. Polyether ether ketone (PEEK);

2. Polyether ketone ketone (PEKK);

3. Polyether ketone (PEK); or

4. Polyether ketone ether ketone ketone (PEKEKK);

b. Not used.

¹ Ref. Annex I to Regulation (EU) 2021/821

X.C.IX.09 Specific materials, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):

- a. Hardened steel and tungsten carbide precision ball bearings (3 mm or greater diameter);
- b. 304 and 316 stainless steel plate, other than those specified in the CML or in Regulation (EU) 2021/821;
- c. Monel plate;
- d. Tributyl phosphate (CAS 126-73-8);
- e. Nitric acid (CAS 7697-37-2) in concentrations of 20 % weight or greater;
- f. Fluorine (CAS 7782-41-4); or
- g. Alpha-emitting radionuclides, other than those specified in the CML or in Regulation (EU) 2021/821.

X.C.IX.10 Aromatic polyamides (aramids) not controlled by 1C010, 1C210 or X.C.IX.004, presented in any of the following forms (see List of Items Controlled):

- a. Primary forms;
- b. Filament yarn or monofilaments;

- c. Filament tows;
- d. Rovings;
- e. Staple or chopped fibres;
- f. Fabrics;
- g. Pulp or flocks.

X.C.IX.11 Nanomaterials as follows (see List of Items Controlled):

- a. Semiconductor nanomaterials;
- b. Composite-based nanomaterials; or
- c. Any of the following carbon-based nanomaterials:
 - 1. Carbon nanotubes;
 - 2. Carbon nanofibres;
 - 3. Fullerenes;
 - 4. Graphenes; or

5. Carbon onions.

Notes: For the purpose of X.C.IX.011, nanomaterial means a material that meets at least one of the following criteria:

- 1. Consists of particles, with one or more external dimensions in the size range 1 – 100 nm for more than 1 % of their number size distribution;*
- 2. Has internal or surface structures in one or more dimensions in the size range 1 – 100 nm; or*
- 3. Has a specific surface area by volume greater than 60 m²/cm³, excluding materials consisting of particles with a size lower than 1 nm.*

X.C.IX.12 Rare-earth metals and compounds, either in organic or inorganic form, including mixtures whether or not intermixed or interalloyed.

Note 1: Rare-earth metals and compounds include Scandium, Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Promethium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium and Lutetium;

Note 2: For the purpose of the control X.C.IX.012 minerals containing rare-earth metals are excluded;

Note 3: X.C.IX.012 does not control mixtures in which no individually metal or compound specified in this entry constitutes more than 5 % by the weight of the mixture.

X.C.IX.13 Tungsten, tungsten carbide and alloys, not controlled by 1C117 or 1C226¹, containing more than 90 % tungsten by weight.

Note 1: For the purpose of the control X.C.IX.013, wire is excluded

Note 2: For the purpose of the control X.C.IX.013, surgical or medical instruments are excluded.

X.D.IX.01 Specific “software”, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):

- a. “Software” specially designed for industrial process control hardware/systems controlled by X.B.IX.001, other than those specified in the CML or in Regulation (EU) 2021/821; or

¹ Ref. Annex I to Regulation (EU) 2021/821

- b. “Software” specially designed for equipment for the production of structural composites, fibres, prepregs and preforms controlled by X.B.IX.001, other than those specified in the CML or in Regulation (EU) 2021/821.

X.E.IX.01 “Technology” for the “development”, “production”, or “use” of fibrous and filamentary materials controlled by X.C.IX.004 and X.C.IX.010.

X.E.IX.02 “Technology” for the “development”, “production”, or “use” of nanomaterials controlled by X.C.IX.011.

Category X – Materials Processing

X.A.X.01 Explosives or detonator detection equipment, both bulk and trace based, consisting of an automated device, or combination of devices for automated decision making to detect the presence of different types of explosives, explosive residue, or detonators; and components, other than those specified in the CML or in Regulation (EU) 2021/821:

- a. Explosives detection equipment for “automated decision making” to detect and identify bulk explosives utilizing, but not limited to, X-ray (e.g., computed tomography, dual energy, or coherent scattering), nuclear (e.g., thermal neutron analysis, pulse fast neutron analysis, pulse fast neutron transmission spectroscopy, and gamma resonance absorption), or electromagnetic techniques (e.g., quadropole resonance and dielectrometry);

- b. Not used;
- c. Detonator detection equipment for automated decision making to detect and identify initiation devices (e.g. detonators, blasting caps) utilizing, but not limited to, X-ray (e.g. dual energy or computed tomography) or electromagnetic techniques.

Note: Explosives or detonation detection equipment in X.A.X.001 includes equipment for screening people, documents, baggage, other personal effects, cargo and/or mail.

Technical Notes:

1. *“Automated decision making” is the ability of the equipment to detect explosives or detonators at the design or operator-selected level of sensitivity and provide an automated alarm when explosives or detonators at or above the sensitivity level are detected.*
2. *This entry does not control equipment that depends on operator interpretation of indicators such as inorganic/organic colour mapping of the items(s) being scanned.*
3. *Explosives and detonators include commercial charges and devices controlled by X.C.VIII.004 and X.C.IX.006 and energetic materials controlled by 1C011, 1C111 and 1C239¹.*

¹ Ref. Annex I to Regulation (EU) 2021/821

X.A.X.02 Concealed object detection equipment operating in the frequency range from 30 GHz to 3 000 GHz and having a spatial resolution of 0,1 mrad (milliradian) up to and including 1 mrad (milliradian) at a standoff distance of 100 m; and components, other than those specified in the CML or in Regulation (EU)2021/821.

Note: Concealed object detection equipment includes but is not limited to equipment for screening people, documents, baggage, other personal effects, cargo and/or mail.

Technical Note:

The range of frequencies span what is generally considered as the millimetre-wave, submillimetre-wave and terahertz frequency regions.

X.A.X.03 Bearings and bearing systems not controlled by 2A001 (see List of Items Controlled):

- a. Ball bearings or Solid ball bearings, having tolerances specified by the manufacturer in accordance with ABEC 7, ABEC 7P, or ABEC 7T or ISO Standard Class 4 or better (or equivalents) and having any of the following characteristics;
 1. Manufactured for use at operating temperatures above 573 K (300 °C) either by using special materials or by special heat treatment; or

2. With lubricating elements or component modifications that, according to the manufacturer's specifications, are specially designed to enable the bearings to operate at speeds exceeding 2,3 million "DN";
- b. Solid tapered roller bearings, having tolerances specified by the manufacturer in accordance with ANSI/AFBMA Class 00 (inch) or Class A (metric) or better (or equivalents) and having either of the following characteristics:
1. With lubricating elements or component modifications that, according to the manufacturer's specifications, are specially designed to enable the bearings to operate at speeds exceeding 2,3 million "DN"; or
 2. Manufactured for use at operating temperatures below 219 K (– 54 °C) or above 423 K (150 °C);
- c. Gas-lubricated foil bearing manufactured for use at operating temperatures of 561 K (288 °C) or higher and a unit load capacity exceeding 1 MPa;
- d. Active magnetic bearing systems;

- e. Fabric-lined self-aligning or fabric-lined journal sliding bearings manufactured for use at operating temperatures below 219 K (– 54 °C) or above 423 K (150 °C).

Technical Notes:

1. “DN” is the product of the bearing bore diameter in mm and the bearing rotational velocity in rpm.
2. Operating temperatures include those temperatures obtained when a gas turbine engine has stopped after operation.

X.A.X.04 Piping, fittings and valves made of, or lined with stainless, copper-nickel alloy or other alloy steel containing 10 % or more nickel and/or chromium:

- a. Pressure tube, pipe, and fittings of 200 mm or more inside diameter, and suitable for operation at pressures of 3,4 MPa or greater;
- b. Pipe valves having all of the following characteristics that are not controlled by 2B350.g¹:
 1. A pipe size connection of 200 mm or more inside diameter; and
 2. Rated at 10,3 MPa or more.

¹ Ref. Annex I to Regulation (EU) 2021/821

Notes:

1. See X.D.X.005 for “software” for items controlled under this entry.
2. See 2E001 (“development”), 2E002 (“production”), and X.E.X.003 (“use”) for technology for items controlled under this entry.
3. See related controls 2A226, 2B350 and X.B.X.010.

X.A.X.05 Pumps designed to move molten metals by electromagnetic forces.

Notes:

1. See X.D.X.005 for “software” for items controlled under this entry.
2. See 2E001 (“development”), 2E002 (“production”), and X.E.X.003 (“use”) for “technology” for items controlled under this entry.
3. Pumps for use in liquid-metal-cooled reactors are controlled by 0A001.

X.A.X.06 “Portable electric generators” and specially designed components.

Technical Note:

“Portable electric generators” – The generators that are in X.A.X.006 are portable – 2 268 kg or less on wheels or transportable in a 2,5 tonnes truck without a special set up requirement.

X.A.X.07 Specific processing equipment, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):

- a. Bellows sealed valves;
- b. Not used.

X.B.X.01 “Continuous flow reactors” and their “modular components”.

Technical Notes:

1. *For the purposes of X.B.X.001, “continuous flow reactors” consist in plug and play systems where reactants are continuously fed into the reactor and the resultant product is collected at the outlet.*
2. *For purposes of X.B.X.001, “modular components” are fluidic modules, liquid pumps, valves, packed-bed modules, mixer modules, pressure gauges, liquid-liquid separators, etc.*

X.B.X.02 Nucleic acid assemblers and synthesizers not controlled by 2B352.i, which are partly or entirely automated, and designed to generate nucleic acids greater than 50 bases.

- X.B.X.03 Automated peptide synthesizers capable to work under controlled atmosphere conditions.
- X.B.X.04 Numerical control units for machine tools and “numerically controlled” machine tools, other than those specified in the CML or in Regulation (EU) 2021/821 (see List of Items Controlled):
- a. “Numerical control” units for machine tools:
1. Having four interpolating axes that can be coordinated simultaneously for contouring control; or
 2. Having two or more axes that can be coordinated simultaneously for contouring control and a minimum programmable increment better (less) than 0,001 mm;
 3. “Numerical control” units for machine tools having two, three or four interpolating axes that can be coordinated simultaneously for contouring control, and capable of receiving directly (on-line) and processing computer-aided-design (CAD) data for internal preparation of machine instructions; or

-
- b. Motion control boards specially designed for machine tools and having any of the following characteristics:
1. Interpolation in more than four axes;
 2. Capable of real-time processing of data to modify tool path, feed rate and spindle data, during the machining operation, by any of the following:
 - a. Automatic calculation and modification of part program data for machining in two or more axes by means of measuring cycles and access to source data; or
 - b. Adaptive control with more than one physical variable measured and processed by means of a computing model (strategy) to change one or more machining instructions to optimize the process; or
 3. Capable of receiving and processing CAD data for internal preparation of machine instructions;

- c. “Numerically controlled” machine tools that, according to the manufacturer’s technical specifications, can be equipped with electronic devices for simultaneous contouring control in two or more axes and that have both of the following characteristics:
1. Two or more axes that can be coordinated simultaneously for contouring control; and
 2. Positioning accuracies according to ISO 230/2 (2006), with all compensations available:
 - a. Better than 15 μm along any linear axis (overall positioning) for grinding machines;
 - b. Better than 15 μm along any linear axis (overall positioning) for milling machines; or
 - c. Better than 15 μm along any linear axis (overall positioning) for turning machines; or

- d. Machine tools, as follows, for removing or cutting metals, ceramics or composites, that, according to the manufacturer's technical specifications, can be equipped with electronic devices for simultaneous contouring control in two or more axes:
1. Machine tools for turning, grinding, milling or any combination thereof, having two or more axes that can be coordinated simultaneously for contouring control and having any of the following characteristics:
 - a. One or more contouring "tilting spindles";
Note: X.B.X.004.d.1.a. applies to machine tools for grinding or milling only.
 - b. "Cammings" (axial displacement) in one revolution of the spindle less (better) than 0,0006 mm total indicator reading (TIR);
Note: X.B.X.004.d.1.b. applies to machine tools for turning only.

- c. “Run-out” (out-of-true running) in one revolution of the spindle less (better) than 0,0006 mm total indicator reading (TIR); or
 - d. The positioning accuracies, with all compensations available, are less (better) than: 0,001° on any rotary axis;
 2. Electrical discharge machines (EDM) of the wire feed type that have five or more axes that can be coordinated simultaneously for contouring control.
- X.B.X.05 Non-“numerically controlled” machine tools for generating optical quality surfaces, (see List of Items Controlled) and specially designed components therefor:
 - a. Turning machines using a single point cutting tool and having all of the following characteristics:
 1. Slide positioning accuracy less (better) than 0,0005 mm per 300 mm of travel;

2. Bidirectional slide positioning repeatability less (better) than 0,00025 mm per 300 mm of travel;
 3. Spindle “run-out” and “camming” less (better) than 0,0004 mm total indicator reading (TIR);
 4. Angular deviation of the slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over full travel; and
5. Slide perpendicularity less (better) than 0,001 mm per 300 mm of travel;

Technical Note:

The bidirectional slide positioning repeatability (R) of an axis is the maximum value of the repeatability of positioning at any position along or around the axis determined using the procedure and under the conditions specified in part 2.11 of ISO 230/2: 1988.

- b. Fly cutting machines having all of the following characteristics:
 - 1. Spindle “run-out” and “camming” less (better) than 0,0004 mm TIR; and
 - 2. Angular deviation of slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over full travel.

X.B.X.06 Gearmaking and/or finishing machinery not controlled by 2B003 capable of producing gears to a quality level of better than AGMA 11.

X.B.X.07 Dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206, as follows (see List of Items Controlled):

- a. Manual dimensional inspection machines, having both of the following characteristics:
 - 1. Two or more axes; and
 - 2. A measurement uncertainty equal to or less (better) than $(3 + L/300) \mu\text{m}$ in any axes (L measured length in mm).

- X.B.X.08 “Robots” not controlled by 2B007 or 2B207 that are capable of employing feedback information in real-time processing from one or more sensors to generate or modify programs or to generate or modify numerical program data.
- X.B.X.09 Assemblies, circuit boards or inserts specially designed for machine tools controlled by X.B.X.004, or for equipment controlled by X.B.X.006, X.B.X.007 or X.B.X.008:
- a. Spindle assemblies, consisting of spindles and bearings as a minimal assembly, with radial (“run-out”) or axial (“camming”) axis motion in one revolution of the spindle less (better) than 0,0006 mm total indicator reading(TIR);
 - b. Single point diamond cutting tool inserts, having all of the following characteristics:
 1. Flawless and chip-free cutting edge when magnified 400 times in any direction;
 2. Cutting radius from 0,1 to 5 mm inclusive; and
 3. Cutting radius out-of-roundness less (better) than 0,002 mm TIR.

- c. Specially designed printed circuit boards with mounted components capable of upgrading, according to the manufacturer's specifications, "numerical control" units, machine tools or feed-back devices to or above the levels specified in X.B.X.004, X.B.X.006, X.B.X.007, X.B.X.008, or X.B.X.009.

Technical Note:

This entry does not control measuring interferometer systems, without closed or open loop feedback, containing a laser to measure slide movement errors of machine-tools, dimensional inspection machines or similar equipment.

X.B.X.10 Specific processing equipment, other than those specified in the CML or in Regulation (EU) 2021/821, as follows (see List of Items Controlled):

- a. Isostatic presses, other than those specified in the CML or in Regulation (EU) 2021/821;
- b. Bellows manufacturing equipment, including hydraulic forming equipment and bellows forming dies;
- c. Laser welding machines;

- d. MIG welders;
- e. E-beam welders;
- f. Monel equipment, including valves, piping, tanks and vessels;
- g. 304 and 316 stainless steel valves, piping, tanks and vessels;

Note: Fittings are considered part of piping for purposes of X.B.X.010.g.

- h. Mining and drilling equipment, as follows:
 - 1. Large boring equipment capable of drilling holes greater than 61 cm in diameter;
 - 2. Large earth-moving equipment used in the mining industry;
- i. Electroplating equipment designed for coating parts with nickel or aluminium;
- j. Pumps designed for industrial service and for use with an electrical motor of 5 HP or greater;

- k. Vacuum valves, piping, flanges, gaskets and related equipment specially designed for use in high-vacuum service, other than those specified in the CML or in Regulation (EU) 2021/821;
 - l. Spin forming and flow forming machines, other than those specified in the CML or in Regulation (EU) 2021/821;
 - m. Centrifugal multiplane balancing machines, other than those specified in the CML or in Regulation (EU) 2021/821; or
 - n. Austenitic stainless steel plate, valves, piping, tanks and vessels.
- X.B.X.11 Floor-mounted fume hoods (walk-in style) with a minimum nominal width of 2,5 metres.
- X.B.X.12 Class II biosafety cabinets and glove boxes.
- X.B.X.13 Batch centrifuges with a rotor capacity of 4 litres or greater, usable with biological materials.
- X.B.X.14 Fermenters with an internal volume of 10–20 litres, usable with biological materials.

- X.B.X.15 Reaction vessels, reactors, agitators, heat exchangers, condensers, pumps (including single seal pumps), valves, storage tanks, containers, receivers, and distillation or absorption columns that meet performance parameters of the control 2B350¹, regardless of their materials of construction.
- Note: For the purpose of the control X.B.X.015, plumbing valves and storage tanks with total internal (geometric) volume less than 1 m³ (1000 litres) designed for domestic water or gas systems are excluded.*
- X.B.X.16 Conventional or turbulent air-flow clean-air rooms and self-contained fan-HEPA filter units that may be used for P3 or P4 (BSL 3, BSL 4, L3, L4) containment facilities.
- X.B.X.17 Vacuum pumps with a manufacturer's specified maximum flow-rate greater than 1 m³/h (under standard temperature and pressure conditions), casings (pump bodies), preformed casing-liners, impellers, rotors, and jet pump nozzles designed for such pumps, in which all surfaces that come into direct contact with the chemicals being processed are made from controlled materials.
- X.B.X.18 Laboratory equipment, including parts and accessories for such equipment, for the analysis or detection, destructive or non-destructive, of chemical substances.
- X.B.X.19 Whole chlor-alkali electrolysis cells – mercury, diaphragm, and membrane.

¹ Ref. Annex I to Regulation (EU) 2021/821

- X.B.X.20 Titanium electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.
- X.B.X.21 Nickel electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.
- X.B.X.22 Bipolar titanium nickel electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.
- X.B.X.23 Asbestos diaphragms specially designed for use in chlor-alkali cells.
- X.B.X.24 Fluoropolymer based diaphragms specially designed for use in chlor-alkali cells.
- X.B.X.25 Fluoropolymer based ion exchange membranes specially designed for use in chlor-alkali cells.
- X.B.X.26 Compressors specially designed to compress wet or dry chlorine, regardless of material of construction.

- X.B.X.27 Microwave reactors – Machinery, plant or laboratory equipment, whether or not electrically heated, for the treatment of materials by a process involving a change of temperature such as heating.
- X.D.X.01 “Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by X.A.X.001.
- X.D.X.02 “Software” “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by X.A.X.002.
- X.D.X.03 “Software” specially designed for the “development”, “production”, or “use” of equipment controlled by X.B.X.004, X.B.X.006, or X.B.X.007, X.B.X.008, and X.B.X.009.
- X.D.X.04 Specific “software”, as follows (see List of Items Controlled):
- a. “Software” to provide adaptive control and having both of the following characteristics:
 1. For flexible manufacturing units (FMUs); and

2. Capable of generating or modifying, in real-time processing, programs or data by using the signals obtained simultaneously by means of at least two detection techniques, such as:
 - a. Machine vision (optical ranging);
 - b. Infrared imaging;
 - c. Acoustical imaging (acoustical ranging);
 - d. Tactile measurement;
 - e. Inertial positioning;
 - f. Force measurement; and
 - g. Torque measurement.

Note: X.D.X.004.a does not control “software” which only provides rescheduling of functionally identical equipment within “flexible manufacturing units” using pre-stored part programs and a pre-stored strategy for the distribution of the part programs.

- b. Not used.

X.D.X.05 “Software” specially designed or modified for the “development,” “production,” or “use” of items controlled by X.A.X.004 or X.A.X.005.

Note: See 2E001 (“development”) for “technology” for “software” controlled under this entry.

X.D.X.06 “Software” specially designed for the “development” or “production” of portable electric generators controlled by X.A.X.006.

X.E.X.01 “Technology” “required” for the “development,” “production” or “use” of equipment controlled by X.A.X.002 or “required” for the “development” of “software” controlled by X.D.X.002.

Note: See X.A.X.002 and X.D.X.002 for related commodity and “software” controls.

X.E.X.02 “Technology” for the “use” of equipment controlled by X.B.X.004, X.B.X.006, X.B.X.007, or X.B.X.008.

X.E.X.03 “Technology” according to the General Technology Note for the “use” of equipment controlled by X.A.X.004 or X.A.X.005.

X.E.X.04 “Technology” for the “use” of portable electric generators controlled by X.A.X.006.

Part B**1. Semiconductor devices**

| CN Code | Description |
|----------------|---|
| 8541 10 | Diodes, other than photosensitive or light-emitting diodes (LED) |
| 8541 21 | Transistors, other than photosensitive transistors with a dissipation rate of less than 1 W |
| 8541 29 | Other transistors, other than photosensitive transistors |
| 8541 30 | Thyristors, diacs and triacs (excl. photosensitive semiconductor devices) |
| 8541 49 | Photosensitive semiconductor devices (excl. Photovoltaic generators and cells) |
| 8541 51 | Other semiconductor devices: Semiconductor-based transducers |
| 8541 59 | Other semiconductor devices |
| 8541 60 | Mounted piezo-electric crystals |
| 8541 90 | Semiconductor devices: Parts |

2. Electronic integrated circuits, manufacturing and testing equipment

| CN Code | Description |
|---------|---|
| 3818 00 | Chemical elements doped for use in electronics, in the form of discs, wafers or similar forms; chemical compounds doped for use in electronics |
| 8486 10 | Machines and apparatus for the manufacture of boules or wafers |
| 8486 20 | Machines and apparatus for the manufacture of semiconductor devices or of electronic integrated circuits |
| 8486 40 | Machines and apparatus specified in note 11(C) to this chapter |
| 8534 00 | Printed circuits |
| 8537 10 | Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517, for a voltage not exceeding 1 000 V |
| 8542 31 | Processors and controllers, whether or not combined with memories, converters, logic circuits, amplifiers, clock and timing circuits, or other circuits |
| 8542 32 | Memories |
| 8542 33 | Amplifiers |
| 8542 39 | Other Electronic Integrated Circuits |
| 8542 90 | Electronic integrated circuits: Parts |
| 8543 20 | Signal generators |
| 9027 50 | Other instruments and apparatus using optical radiation (UV, visible, IR) |
| 9030 20 | Oscilloscopes and oscillographs |
| 9030 32 | Multimeters with recording device |
| 9030 39 | Instruments and apparatus for measuring or checking voltage, current, resistance or electrical power, with recording device |
| 9030 82 | Instruments and apparatus for measuring or checking semiconductor wafers or devices |

3. Photographic cameras and optical components

| CN Code | Description |
|----------------|--|
| 8525 89 | Other television cameras, digital cameras and video camera recorders |
| 8529 90 | Other parts suitable for use solely or principally with the apparatus of headings 8524 to 8528 |
| 9006 30 | Cameras specially designed for underwater use, for aerial survey or for medical or surgical examination of internal organs; comparison cameras for forensic or criminological purposes |
| 9013 10 | Telescopic sights for fitting to arms; periscopes; telescopes designed to form parts of machines, appliances, instruments or apparatus of this chapter or Section XVI |
| 9013 80 | Other optical devices, appliances and instruments |
| 9025 19 | Other thermometers and pyrometers, not combined with other instruments |

4. Other electrical/magnetic components

| CN Code | Description |
|----------------|---|
| 8505 11 | Permanent magnets and articles intended to become permanent magnets after magnetisation; of metal |
| 8529 10 | Aerials and aerial reflectors of all kinds; parts suitable for use therewith |
| 8532 21 | Other fixed capacitors of tantalum |
| 8532 24 | Ceramic dielectric multilayer capacitors |
| 8536 41 | Relays, for a voltage not exceeding 60 V |
| 8536 50 | Other switches |
| 8536 69 | Plugs and sockets |
| 8536 90 | Other apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp holders and other connectors, junction boxes), for a voltage not exceeding 1 000 V; connectors for optical fibres, optical fibre bundles or cables |
| 8548 00 | Electrical parts of machinery or apparatus, not specified or included elsewhere in Chapter 85 |

5. Machines for additive manufacturing

| CN Code | Description |
|----------------|---|
| 8485 20 | Machines for additive manufacturing by plastics or rubber deposit |
| 8485 30 | Machines for additive manufacturing by plaster, cement, ceramics or glass deposit |
| 8485 90 | Parts of machines for additive manufacturing |

6. Energetic materials and precursors

| CN Code | Description |
|----------------|---|
| 4706 10 | Pulps of fibres derived from recovered (waste and scrap) paper or paperboard or of other fibrous cellulosic material: Cotton linters pulp |

7. Electronic devices, modules and assemblies

| CN Code | Description |
|------------|---|
| 8471 50 | Processing units other than those of subheading 8471 41 or 8471 49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units |
| 8471 80 | Units for automatic data-processing machines (excl. processing units, input or output units and storage units) |
| 8471 70 98 | Other storage units |
| 8517 62 | Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus |
| 8517 69 | Other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network |
| 8526 91 | Radio navigational aid apparatus |
| 9014 20 | Instruments and appliances for aeronautical or space navigation (other than compasses) |
| 9014 80 | Other navigational instruments and appliances |

ANNEX III

In Annex VIII to Regulation (EU) No 833/2014, the following partner country is added:

‘SWITZERLAND’

ANNEX IV

In Annex XV to Regulation (EU) No 833/2014, the following entities are added:

‘RT Balkan

Oriental Review

Tsargrad

New Eastern Outlook

Katehon’

ANNEX V

Annex XVII to Regulation (EU) No 833/2014 is replaced as follows:

‘ XVII

List of iron and steel products referred to in Article 3g

| CN Code | Description |
|---------|--|
| 7206 | iron and non-alloy steel in ingots or other primary forms (excl. remelting scrap ingots, products obtained by continuous casting and iron of heading 7203) |
| 7207 | semi-finished products of iron or non-alloy steel |
| 7208 | flat-rolled products of iron or non-alloy steel, of a width \geq 600 mm, hot-rolled, not clad, plated or coated |
| 7209 | flat-rolled products of iron or non-alloy steel, of a width of \geq 600 mm, cold-rolled "cold-reduced", not clad, plated or coated |
| 7210 | flat-rolled products of iron or non-alloy steel, of a width \geq 600 mm, hot-rolled or cold-rolled "cold-reduced", clad, plated or coated |
| 7211 | flat-rolled products of iron or non-alloy steel, of a width of $<$ 600 mm, hot-rolled or cold-rolled "cold-reduced", not clad, plated or coated |
| 7212 | flat-rolled products of iron or non-alloy steel, of a width of $<$ 600 mm, hot-rolled or cold-rolled "cold-reduced", clad, plated or coated |
| 7213 | bars and rods of iron or non-alloy steel, hot-rolled, in irregularly wound coils |
| 7214 | bars and rods, of iron or non-alloy steel, not further worked than forged, hot-rolled, hot-drawn or hot-extruded, but incl. those twisted after rolling (excl. in irregularly wound coils) |
| 7215 | bars and rods, of iron or non-alloy steel, cold-formed or cold-finished, whether or not further worked, or hot-formed and further worked, n.e.s. |

| CN Code | Description |
|---------|---|
| 7216 | angles, shapes and sections of iron or non-alloy steel, n.e.s. |
| 7217 | wire of iron or non-alloy steel, in coils (excl. bars and rods) |
| 7218 | stainless steel in ingots or other primary forms; semi-finished products of stainless steel |
| 7219 | flat-rolled products of stainless steel, of a width of ≥ 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7220 | flat-rolled products of stainless steel, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7221 | bars and rods of stainless steel, hot-rolled, in irregularly wound coils |
| 7222 | other bars and rods of stainless steel; angles, shapes and sections of stainless steel, n.e.s. |
| 7223 | wire of stainless steel, in coils (excl. bars and rods) |
| 7224 | steel, alloy, other than stainless, in ingots or other primary forms, semi-finished products of alloy steel other than stainless |
| 7225 | flat-rolled products of alloy steel other than stainless, of a width of ≥ 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7226 | flat-rolled products of alloy steel other than stainless, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7227 | bars and rods of alloy steel other than stainless, hot-rolled, in irregularly wound coils |
| 7228 | other bars and rods of alloy steel other than stainless, angles, shapes and sections of alloy steel other than stainless, n.e.s.; hollow drill bars and rods, of alloy or non-alloy steel |
| 7229 | wire of alloy steel other than stainless, in coils (excl. bars and rods) |

| CN Code | Description |
|---------|---|
| 7301 | sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel |
| 7302 | railway or tramway track construction material of iron or steel, the following : rails, check-rails and rack rails, switch blades, crossing frogs, point rods and other crossing pieces, sleepers "cross-ties", fish-plates, chairs, chair wedges, sole plates "base plates", rail clips, bedplates, ties and other material specialised for jointing or fixing rails |
| 7303 | tubes, pipes and hollow profiles, of cast iron |
| 7304 | tubes, pipes and hollow profiles, seamless, of iron or steel (excl. products of cast iron) |
| 7305 | tubes and pipes, having circular cross-sections and an external diameter of > 406,4 mm, of flat-rolled products of iron or steel "e.g., welded, riveted or similarly closed" |
| 7306 | tubes, pipes and hollow profiles "e.g., open seam or welded, riveted or similarly closed", of iron or steel (excl. of cast iron, seamless tubes and pipes and tubes having internal and external circular cross-sections and an external diameter of > 406,4 mm) |
| 7307 | tube or pipe fittings "e.g. couplings, elbows, sleeves", of iron or steel |
| 7308 | structures and parts of structures "e.g., bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns", of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel (excl. prefabricated buildings of heading 9406) |
| 7309 | reservoirs, tanks, vats and similar containers, of iron or steel, for any material "other than compressed or liquefied gas", of a capacity of > 300 l, not fitted with mechanical or thermal equipment, whether or not lined or heat-insulated (excl. containers specifically constructed or equipped for one or more types of transport) |

| CN Code | Description |
|---------|---|
| 7310 | tanks, casks, drums, cans, boxes and similar containers, of iron or steel, for any material "other than compressed or liquefied gas", of a capacity of ≤ 300 l, not fitted with mechanical or thermal equipment, whether or not lined or heat-insulated, n.e.s. |
| 7311 | containers of iron or steel, for compressed or liquefied gas (excl. containers specifically constructed or equipped for one or more types of transport) |
| 7312 | stranded wire, ropes, cables, plaited bands, slings and the like, of iron or steel (excl. electrically insulated products and twisted fencing wire and barbed wire) |
| 7313 | barbed wire of iron or steel; twisted hoop or single flat wire, barbed or not, and loosely twisted double wire, of a kind used for fencing, of iron or steel |
| 7314 | cloth, incl. endless bands, grill, netting and fencing, of iron or steel wire, expanded metal of iron or steel (excl. woven products of metal fibres of a kind used for cladding, lining or similar purposes) |
| 7315 | chain and parts thereof, of iron or steel (excl. watch chains, necklace chains and the like, cutting and saw chain, skid chain, scraper chain for conveyors, toothed chain for textile machinery and the like, safety devices with chains for securing doors, measuring chains) |
| 7316 | anchors, grapnels and parts thereof, of iron or steel |
| 7317 | nails, tacks, drawing pins, corrugated nails, staples and similar articles of iron or steel, whether or not with heads of other material (excl. such articles with heads of copper and staples in strips) |
| 7318 | screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers, incl. spring washers, and similar articles, of iron or steel (excl. lag screws, stoppers, plugs and the like, threaded) |
| 7319 | sewing needles, knitting needles, bodkins, crochet hooks, embroidery stiletos and similar articles, for use in the hand, of iron or steel; safety pins and other pins of iron or steel, n.e.s. |

| CN Code | Description |
|---------|--|
| 7320 | springs and leaves for springs, of iron or steel (excl. clock and watch springs, springs for sticks and handles of umbrellas or parasols, shock absorbers and torque rod or torsion bar springs of section 17) |
| 7321 | stoves, ranges, grates, cookers, incl. those with subsidiary boilers for central heating, barbecues, braziers, gas rings, plate warmers and similar non-electric domestic appliances, and parts thereof of iron or steel (excl. boilers and radiators for central heating, geysers and hot water cylinders) |
| 7322 | radiators for central heating, not-electrically heated, and parts thereof, of iron or steel; air heaters and hot-air distributors, incl. distributors which can also distribute fresh or conditioned air), not-electrically heated, incorporating a motor-driven fan or blower, and parts thereof, of iron or steel |
| 7323 | table, kitchen or other household articles, and parts thereof, of iron or steel; iron or steel wool; pot scourers and scouring or polishing pads, gloves and the like, of iron or steel (excl. cans, boxes and similar containers of heading 7310; waste baskets; shovels, corkscrews and other articles of the nature of a work implement; articles of cutlery, spoons, ladles, forks etc. of heading 8211 to 8215; ornamental articles; sanitary ware) |
| 7324 | sanitary ware, and parts thereof, of iron or steel (excl. cans, boxes and similar containers of heading 7310, small wall cabinets for medical supplies or toiletries and other furniture of chapter 94, and fittings) |
| 7325 | articles of iron or steel, cast, n.e.s. |
| 7326 | articles of iron or steel, n.e.s. (excl. cast articles) |

ANNEX VI

Annex XVIII to Regulation (EU) No 833/2014 is replaced by the following:

‘ XVIII

List of luxury goods referred to in Article 3h

EXPLANATORY NOTE

The nomenclature codes are taken from the Combined Nomenclature as defined in Article 1(2) of Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff and as set out in Annex I thereto, which are valid at the time of publication of this Regulation and *mutatis mutandis* as amended by subsequent legislation.

(1) Horses

| | | |
|----|------------|----------------------------|
| ex | 0101 21 00 | Pure-bred breeding animals |
| ex | 0101 29 90 | Other |

(2) Caviar and caviar substitutes

| | | |
|----|------------|--------------------|
| ex | 1604 31 00 | Caviar |
| ex | 1604 32 00 | Caviar substitutes |

(3) Truffles and preparations thereof

| | | |
|----|------------|---|
| ex | 0709 56 00 | Truffles |
| ex | 0710 80 69 | Other |
| ex | 0711 59 00 | Other |
| ex | 0712 39 00 | Other |
| ex | 2001 90 97 | Other |
| ex | 2003 90 10 | Truffles |
| ex | 2103 90 90 | Other |
| ex | 2104 10 00 | Soups and broths and preparations thereof |
| ex | 2104 20 00 | Homogenised composite food preparations |
| ex | 2106 00 00 | Food preparations not elsewhere specified or included |

(4) Wines (including sparkling wines), beers, spirits and spirituous beverages

| | | |
|----|------------|--|
| ex | 2203 00 00 | Beer made from malt |
| ex | 2204 10 11 | Champagne |
| ex | 2204 10 91 | Asti spumante |
| ex | 2204 10 93 | Other |
| ex | 2204 10 94 | With a protected geographical indication (PGI) |
| ex | 2204 10 96 | Other varietal wines |
| ex | 2204 10 98 | Other |
| ex | 2204 21 00 | In containers holding 2 litres or less |
| ex | 2204 29 00 | Other |
| ex | 2205 00 00 | Vermouth and other wine of fresh grapes flavoured with plants or aromatic substances |
| ex | 2206 00 00 | Other fermented beverages (for example, cider, perry, mead, saké); mixtures of fermented beverages and mixtures of fermented beverages with non-alcoholic beverages, not elsewhere specified or included |
| ex | 2207 10 00 | Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol or higher |
| ex | 2208 00 00 | Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80 % vol; spirits, liqueurs and other spirituous beverages |

(5) Cigars and cigarillos

| | | |
|----|------------|---|
| ex | 2402 10 00 | Cigars, cheroots and cigarillos, containing tobacco |
| ex | 2402 90 00 | Other |

(6) Perfumes, toilet waters and cosmetics, including beauty and make-up products

| | | |
|----|------------|---|
| ex | 3303 | Perfumes and toilet waters |
| ex | 3304 00 00 | Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or suntan preparations; manicure or pedicure preparations |
| ex | 3305 00 00 | Preparations for use on the hair |
| ex | 3307 00 00 | Pre-shave, shaving or aftershave preparations, personal deodorants, bath preparations, depilatories and other perfumery, cosmetic or toilet preparations, not elsewhere specified or included; prepared room deodorisers, whether or not perfumed or having disinfectant properties |
| ex | 6704 00 00 | Wigs, false beards, eyebrows and eyelashes, switches and the like, of human or animal hair or of textile materials; articles of human hair not elsewhere specified or included |

(7) Leather, saddlery and travel goods, handbags and similar articles

| | | |
|----|------------|--|
| ex | 4201 00 00 | Saddlery and harness for any animal (including traces, leads, knee pads, muzzles, saddle-cloths, saddlebags, dog coats and the like), of any material |
| ex | 4202 00 00 | Trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling-bags, insulated food or beverages bags, toilet bags, rucksacks, handbags, shopping-bags, wallets, purses, map-cases, cigarette-cases, tobacco-pouches, tool bags, sports bags, bottle-cases, jewellery boxes, powder boxes, cutlery cases and similar containers, of leather or of composition leather, of sheeting of plastics, of textile materials, of vulcanised fibre or of paperboard, or wholly or mainly covered with such materials or with paper |
| ex | 4205 00 90 | Other |
| ex | 9605 00 00 | Travel sets for personal toilet, sewing or shoe or clothes cleaning |

(8) Coats, or other garments, clothing accessories and shoes (regardless of their material)

| | | |
|----|------------|---|
| ex | 4203 00 00 | Articles of apparel and clothing accessories, of leather or of composition leather |
| ex | 4303 00 00 | Articles of apparel, clothing accessories and other articles of furskin |
| ex | 6101 00 00 | Men's or boys' overcoats, car coats, capes, cloaks, anoraks (including ski jackets), windcheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading 6103 |
| ex | 6102 00 00 | Women's or girls' overcoats, car coats, capes, cloaks, anoraks (including ski jackets), windcheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading 6104 |

| | | |
|----|------------|--|
| ex | 6103 00 00 | Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted |
| ex | 6104 00 00 | Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted |
| ex | 6105 00 00 | Men's or boys' shirts, knitted or crocheted |
| ex | 6106 00 00 | Women's or girls' blouses, shirts and shirt-blouses, knitted or crocheted |
| ex | 6107 00 00 | Men's or boys' underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles, knitted or crocheted |
| ex | 6108 00 00 | Women's or girls' slips, petticoats, briefs, panties, nightdresses, pyjamas, negligés, bathrobes, dressing gowns and similar articles, knitted or crocheted |
| ex | 6109 00 00 | T-shirts, singlets and other vests, knitted or crocheted |
| ex | 6110 00 00 | Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted |
| ex | 6111 00 00 | Babies' garments and clothing accessories, knitted or crocheted |
| ex | 6112 11 00 | Of cotton |
| ex | 6112 12 00 | Of synthetic fibres |
| ex | 6112 19 00 | Of other textile materials |
| ex | 6112 20 00 | Ski suits |
| ex | 6112 31 00 | Of synthetic fibres |
| ex | 6112 39 00 | Of other textile materials |
| ex | 6112 41 00 | Of synthetic fibres |
| ex | 6112 49 00 | Of other textile materials |
| ex | 6113 00 10 | Of knitted or crocheted fabrics of heading 5906 |
| ex | 6113 00 90 | Other |

| | | |
|----|------------|---|
| ex | 6114 00 00 | Other garments, knitted or crocheted |
| ex | 6115 00 00 | Pantyhose, tights, stockings, socks and other hosiery, including graduated compression hosiery (for example, stockings for varicose veins) and footwear without applied soles, knitted or crocheted |
| ex | 6116 00 00 | Gloves, mittens and mitts, knitted or crocheted |
| ex | 6117 00 00 | Other made-up clothing accessories, knitted or crocheted; knitted or crocheted parts of garments or of clothing accessories |
| ex | 6201 00 00 | Men's or boys' overcoats, car coats, capes, cloaks, anoraks (including ski jackets), windcheaters, wind-jackets and similar articles, other than those of heading 6203 |
| ex | 6202 00 00 | Women's or girls' overcoats, car coats, capes, cloaks, anoraks (including ski jackets), windcheaters, wind-jackets and similar articles, other than those of heading 6204 |
| ex | 6203 00 00 | Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear) |
| ex | 6204 00 00 | Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear) |
| ex | 6205 00 00 | Men's or boys' shirts |
| ex | 6206 00 00 | Women's or girls' blouses, shirts and shirt-blouses |
| ex | 6207 00 00 | Men's or boys' singlets and other vests, underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles |
| ex | 6208 00 00 | Women's or girls' singlets and other vests, slips, petticoats, briefs, panties, nightdresses, pyjamas, negligés, bathrobes, dressing gowns and similar articles |
| ex | 6209 00 00 | Babies' garments and clothing accessories |
| ex | 6210 10 00 | Of fabrics of heading 5602 or 5603 |
| ex | 6210 20 00 | Other garments, of the type described in subheadings 6201 11 to 6201 19 |

| | | |
|----|------------|--|
| ex | 6210 30 00 | Other garments, of the type described in subheadings 6202 11 to 6202 19 |
| ex | 6210 40 00 | Other men's or boys' garments |
| ex | 6210 50 00 | Other women's or girls' garments |
| ex | 6211 11 00 | Men's or boys' |
| ex | 6211 12 00 | Women's or girls' |
| ex | 6211 20 00 | Ski suits |
| ex | 6211 32 00 | Of cotton |
| ex | 6211 33 00 | Of man-made fibres |
| ex | 6211 39 00 | Of other textile materials |
| ex | 6211 42 00 | Of cotton |
| ex | 6211 43 00 | Of man-made fibres |
| ex | 6211 49 00 | Of other textile materials |
| ex | 6212 00 00 | Brassières, girdles, corsets, braces, suspenders, garters and similar articles and parts thereof, whether or not knitted or crocheted |
| ex | 6213 00 00 | Handkerchiefs |
| ex | 6214 00 00 | Shawls, scarves, mufflers, mantillas, veils and the like |
| ex | 6215 00 00 | Ties, bow ties and cravats |
| ex | 6216 00 00 | Gloves, mittens and mitts |
| ex | 6217 00 00 | Other made-up clothing accessories; parts of garments or of clothing accessories, other than those of heading 6212 |
| ex | 6401 00 00 | Waterproof footwear with outer soles and uppers of rubber or of plastics, the uppers of which are neither fixed to the sole nor assembled by stitching, riveting, nailing, screwing, plugging or similar processes |
| ex | 6402 20 00 | Footwear with upper straps or thongs assembled to the sole by means of plugs |

| | | |
|----|------------|---|
| ex | 6402 91 00 | Covering the ankle |
| ex | 6402 99 00 | Other |
| ex | 6403 19 00 | Other |
| ex | 6403 20 00 | Footwear with outer soles of leather, and uppers which consist of leather straps across the instep and around the big toe |
| ex | 6403 40 00 | Other footwear, incorporating a protective metal toecap |
| ex | 6403 51 00 | Covering the ankle |
| ex | 6403 59 00 | Other |
| ex | 6403 91 00 | Covering the ankle |
| ex | 6403 99 00 | Other |
| ex | 6404 19 10 | Slippers and other indoor footwear |
| ex | 6404 20 00 | Footwear with outer soles of leather or composition leather |
| ex | 6405 00 00 | Other footwear |
| ex | 6504 00 00 | Hats and other headgear, plaited or made by assembling strips of any material, whether or not lined or trimmed |
| ex | 6505 00 10 | Of fur felt or of felt of wool and fur, made from the hat bodies, hoods or plateaux of heading 6501 00 00 |
| ex | 6505 00 30 | Peaked caps |
| ex | 6505 00 90 | Other |
| ex | 6506 99 00 | Of other materials |
| ex | 6601 91 00 | Having a telescopic shaft |
| ex | 6601 99 00 | Other |
| ex | 6602 00 00 | Walking sticks, seat-sticks, whips, riding-crops and the like |
| ex | 9619 00 81 | Napkins and napkin liners for babies |

(9) Carpets, rugs and tapestries, hand-made or not

| | | |
|----|------------|--|
| ex | 5701 00 00 | Carpets and other textile floor coverings, knotted, whether or not made up |
| ex | 5702 10 00 | “Kelem”, “Schumacks”, “Karamanie” and similar hand-woven rugs |
| ex | 5702 20 00 | Floor coverings of coconut fibres (coir) |
| ex | 5702 31 80 | Other |
| ex | 5702 32 00 | Of man-made textile materials |
| ex | 5702 39 00 | Of other textile materials |
| ex | 5702 41 90 | Other |
| ex | 5702 42 00 | Of man-made textile materials |
| ex | 5702 50 00 | Other, not of pile construction, not made up |
| ex | 5702 91 00 | Of wool or fine animal hair |
| ex | 5702 92 00 | Of man-made textile materials |
| ex | 5702 99 00 | Of other textile materials |
| ex | 5703 00 00 | Carpets and other textile floor coverings, tufted, whether or not made up |
| ex | 5704 00 00 | Carpets and other textile floor coverings, of felt, not tufted or flocked, whether or not made up |
| ex | 5705 00 00 | Other carpets and other textile floor coverings, whether or not made up |
| ex | 5805 00 00 | Hand-woven tapestries of the type Gobelins, Flanders, Aubusson, Beauvais and the like, and needle-worked tapestries (for example, petit point, cross stitch), whether or not made up |

(10) Pearls, precious and semi-precious stones, articles of pearls, jewellery, gold- or silversmith articles

| | | |
|----|------------|--|
| ex | 7101 00 00 | Pearls, natural or cultured, whether or not worked or graded but not strung, mounted or set; pearls, natural or cultured, temporarily strung for convenience of transport |
| ex | 7102 00 00 | Diamonds, whether or not worked, but not mounted or set, excluding for industrial use |
| ex | 7103 00 00 | Precious stones (other than diamonds) and semi-precious stones, whether or not worked or graded but not strung, mounted or set; ungraded precious stones (other than diamonds) and semi-precious stones, temporarily strung for convenience of transport |
| ex | 7104 91 00 | Diamonds, excluding for industrial use |
| ex | 7105 00 00 | Dust and powder of natural or synthetic precious or semi-precious stones |
| ex | 7106 00 00 | Silver (including silver plated with gold or platinum), unwrought or in semi-manufactured forms, or in powder form |
| ex | 7107 00 00 | Base metals clad with silver, not further worked than semi-manufactured |
| ex | 7108 00 00 | Gold (including gold plated with platinum), unwrought or in semi-manufactured forms, or in powder form |
| ex | 7109 00 00 | Base metals or silver, clad with gold, not further worked than semi-manufactured |
| ex | 7110 11 00 | Platinum, unwrought or in powder form |
| ex | 7110 19 00 | Platinum, other than unwrought or in powder form |
| ex | 7110 21 00 | Palladium, unwrought or in powder form |
| ex | 7110 29 00 | Palladium, other than unwrought or in powder form |

| | | |
|----|------------|--|
| ex | 7110 31 00 | Rhodium, unwrought or in powder form |
| ex | 7110 39 00 | Rhodium, other than unwrought or in powder form |
| ex | 7110 41 00 | Iridium, osmium and ruthenium, unwrought or in powder form |
| ex | 7110 49 00 | Iridium, osmium and ruthenium, other than unwrought or in powder form |
| ex | 7111 00 00 | Base metals, silver or gold, clad with platinum, not further worked than semi-manufactured |
| ex | 7113 00 00 | Articles of jewellery and parts thereof, of precious metal or of metal clad with precious metal |
| ex | 7114 00 00 | Articles of goldsmiths' or silversmiths' wares and parts thereof, of precious metal or of metal clad with precious metal |
| ex | 7115 00 00 | Other articles of precious metal or of metal clad with precious metal |
| ex | 7116 00 00 | Articles of natural or cultured pearls, precious or semi-precious stones (natural, synthetic or reconstructed) |

(11) Coins and banknotes, not being legal tender

| | | |
|----|------------|---|
| ex | 4907 00 30 | Banknotes |
| ex | 7118 10 00 | Coin (other than gold coin), not being legal tender |
| ex | 7118 90 00 | Other |

(12) Cutlery of precious metal or plated or clad with precious metal

| | | |
|----|------------|---|
| ex | 7114 00 00 | Articles of goldsmiths' or silversmiths' wares and parts thereof, of precious metal or of metal clad with precious metal |
| ex | 7115 00 00 | Other articles of precious metal or of metal clad with precious metal |
| ex | 8214 00 00 | Other articles of cutlery (for example, hair clippers, butchers' or kitchen cleavers, choppers and mincing knives, paperknives); manicure or pedicure sets and instruments (including nail files) |
| ex | 8215 00 00 | Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs and similar kitchen or tableware |
| ex | 9307 00 00 | Swords, cutlasses, bayonets, lances and similar arms and parts thereof and scabbards and sheaths therefor |

(13) Tableware of porcelain, china, stone- or earthenware or fine pottery

| | | |
|----|------------|---|
| ex | 6911 00 00 | Tableware, kitchenware, other household articles and toilet articles, of porcelain or china |
| ex | 6912 00 23 | Stoneware |
| ex | 6912 00 25 | Earthenware or fine pottery |
| ex | 6912 00 83 | Stoneware |
| ex | 6912 00 85 | Earthenware or fine pottery |
| ex | 6914 10 00 | Of porcelain or china |
| ex | 6914 90 00 | Other |

(14) Items of lead crystal

| | | |
|----|------------|---|
| ex | 7009 91 00 | Unframed |
| ex | 7009 92 00 | Framed |
| ex | 7010 00 00 | Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass |
| ex | 7013 22 00 | Of lead crystal |
| ex | 7013 33 00 | Of lead crystal |
| ex | 7013 41 00 | Of lead crystal |
| ex | 7013 91 00 | Of lead crystal |
| ex | 7018 10 00 | Glass beads, imitation pearls, imitation precious or semi-precious stones and similar glass smallwares |
| ex | 7018 90 00 | Other |
| ex | 7020 00 80 | Other |
| ex | 9405 50 00 | Non-electrical lamps and lighting fittings |
| ex | 9405 91 00 | Of glass |

(15) Electronic items for domestic use of a value exceeding EUR 750

| | | |
|----|------------|---|
| ex | 8414 51 | Table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output not exceeding 125 W |
| ex | 8414 59 00 | Other |
| ex | 8414 60 00 | Hoods having a maximum horizontal side not exceeding 120 cm |
| ex | 8415 10 00 | Window or wall types, self-contained or “split-system” |
| ex | 8418 10 00 | Combined refrigerator-freezers, fitted with separate external doors |
| ex | 8418 21 00 | Compression-type |
| ex | 8418 29 00 | Other |
| ex | 8418 30 00 | Freezers of the chest type, not exceeding 800 litres capacity |
| ex | 8418 40 00 | Freezers of the upright type, not exceeding 900 litres capacity |
| ex | 8419 81 00 | For making hot drinks or for cooking or heating food |
| ex | 8422 11 00 | Of the household type |
| ex | 8423 10 00 | Personal weighing machines, including baby scales; household scales |
| ex | 8443 12 00 | Offset printing machinery, sheet fed, office type (using sheets with one side not exceeding 22 cm and the other side not exceeding 36 cm in the unfolded state) |
| ex | 8443 31 00 | Machines which perform two or more of the functions of printing, copying or facsimile transmission, capable of connecting to an automatic data-processing machine or to a network |
| ex | 8443 32 00 | Other, capable of connecting to an automatic data-processing machine or to a network |
| ex | 8443 39 00 | Other |
| ex | 8450 11 00 | Fully-automatic machines |
| ex | 8450 12 00 | Other machines, with built-in centrifugal drier |

| | | |
|----|------------|---|
| ex | 8450 19 00 | Other |
| ex | 8451 21 00 | Each of a dry linen capacity not exceeding 10 kg |
| ex | 8452 10 00 | Sewing machines of the household type |
| ex | 8470 10 00 | Electronic calculators capable of operation without an external source of electric power and pocket-size data-recording, reproducing and displaying machines with calculating functions |
| ex | 8470 21 00 | Incorporating a printing device |
| ex | 8470 29 00 | Other |
| ex | 8470 30 00 | Other calculating machines |
| ex | 8472 90 80 | Other |
| ex | 8479 60 00 | Evaporative air coolers |
| ex | 8508 11 00 | Of a power not exceeding 1 500 W and having a dust bag or other receptacle capacity not exceeding 20 l |
| ex | 8508 19 00 | Other |
| ex | 8508 60 00 | Other vacuum cleaners |
| ex | 8509 80 00 | Other appliances |
| ex | 8516 31 00 | Hairdryers |
| ex | 8516 50 00 | Microwave ovens |
| ex | 8516 60 10 | Cookers (incorporating at least an oven and a hob) |
| ex | 8516 71 00 | Coffee or tea makers |
| ex | 8516 72 00 | Toasters |
| ex | 8516 79 00 | Other |
| ex | 8517 11 00 | Line telephone sets with cordless handsets |
| ex | 8517 13 00 | Smartphones |

| | | |
|----|------------|--|
| ex | 8517 18 00 | Other |
| ex | 8529 10 65 | Inside aerials for radio or television broadcast receivers, including built-in types |
| ex | 8529 10 69 | Other |
| ex | 8531 10 00 | Burglar or fire alarms and similar apparatus |
| ex | 8543 70 10 | Electrical machines with translation or dictionary functions |
| ex | 8543 70 30 | Aerial amplifiers |
| ex | 8543 70 50 | Sunbeds, sunlamps and similar suntanning equipment |
| ex | 8543 70 90 | Other |
| ex | 9504 50 00 | Video game consoles and machines, other than those of subheading 9504 30 |
| ex | 9504 90 80 | Other |

- (16) Electrical/electronic or optical apparatus for recording and reproducing sound and images of a value exceeding EUR 1 000

| | | |
|----|------------|--|
| ex | 8519 00 00 | Sound recording or sound reproducing apparatus |
| ex | 8521 00 00 | Video recording or reproducing apparatus, whether or not incorporating a video tuner |
| ex | 8527 00 00 | Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock |
| ex | 8528 71 00 | Not designed to incorporate a video display or screen |
| ex | 8528 72 00 | Other, colour |
| ex | 9006 00 00 | Photographic (other than cinematographic) cameras; photographic flashlight apparatus and flashbulbs other than discharge lamps of heading 8539 |

- (17) Vehicles, for the transport of persons on earth, air or sea of a value exceeding EUR 50 000 each, teleferics, chairlifts, ski-draglines, traction mechanisms for funiculars, motorbikes of a value exceeding EUR 5 000 each, as well as their accessories and spareparts

| | | |
|----|------------|--|
| ex | 4011 10 00 | Of a kind used on motor cars (including station wagons and racing cars) |
| ex | 4011 40 00 | Of a kind used on motorcycles |
| ex | 4011 90 00 | Other |
| ex | 7009 10 00 | Rear-view mirrors for vehicles |
| ex | 8407 00 00 | Spark-ignition reciprocating or rotary internal combustion piston engines |
| ex | 8409 00 00 | Parts suitable for use solely or principally with the engines of heading 8407 or 8408 |
| ex | 8428 60 00 | Teleferics, chairlifts, ski-draglines, traction mechanisms for funiculars |
| ex | 8512 30 10 | Burglar alarms of a kind used for motor vehicles |
| ex | 8512 30 90 | Other |
| ex | 8512 40 00 | Windscreen wipers, defrosters and demisters |
| ex | 8603 00 00 | Self-propelled railway or tramway coaches, vans and trucks, other than those of heading 8604 |
| ex | 8605 00 00 | Railway or tramway passenger coaches, not self-propelled; luggage vans, post office coaches and other special purpose railway or tramway coaches, not self-propelled (excluding those of heading 8604) |
| ex | 8607 00 00 | Parts of railway or tramway locomotives or rolling stock |
| ex | 8702 00 00 | Motor vehicles for the transport of ten or more persons, including the driver |
| ex | 8706 00 00 | Chassis fitted with engines, for the motor vehicles of headings 8701 to 8705 |

| | | |
|----|------------|---|
| ex | 8707 00 00 | Bodies (including cabs), for the motor vehicles of headings 8701 to 8705 |
| ex | 8708 00 00 | Parts and accessories of the motor vehicles of headings 8701 to 8705 |
| ex | 8711 00 00 | Motorcycles (including mopeds) and cycles fitted with an auxiliary motor, with or without side-cars; side-cars |
| ex | 8712 00 00 | Bicycles and other cycles (including delivery tricycles), not motorised |
| ex | 8714 00 00 | Parts and accessories of vehicles of headings 8711 to 8713 |
| ex | 8716 10 00 | Trailers and semi-trailers of the caravan type, for housing or camping |
| ex | 8716 40 00 | Other trailers and semi-trailers |
| ex | 8901 10 00 | Cruise ships, excursion boats and similar vessels principally designed for the transport of persons; ferry-boats of all kinds |
| ex | 8901 90 00 | Other vessels for the transport of goods and other vessels for the transport of both persons and goods |

(18) Clocks and watches and their parts

| | | |
|----|------------|--|
| ex | 9101 00 00 | Wristwatches, pocket-watches and other watches, including stopwatches, with case of precious metal or of metal clad with precious metal |
| ex | 9102 00 00 | Wristwatches, pocket-watches and other watches, including stopwatches, other than those of heading 9101 |
| ex | 9103 00 00 | Clocks with watch movements, excluding clocks of heading 9104 |
| ex | 9104 00 00 | Instrument panel clocks and clocks of a similar type for vehicles, aircraft, spacecraft or vessels |
| ex | 9105 00 00 | Other clocks |
| ex | 9108 00 00 | Watch movements, complete and assembled |
| ex | 9109 00 00 | Clock movements, complete and assembled |
| ex | 9110 00 00 | Complete watch or clock movements, unassembled or partly assembled (movement sets); incomplete watch or clock movements, assembled; rough watch or clock movements |
| ex | 9111 00 00 | Watch cases and parts thereof |
| ex | 9112 00 00 | Clock cases and cases of a similar type for other goods of this chapter, and parts thereof |
| ex | 9113 00 00 | Watch straps, watch bands and watch bracelets, and parts thereof |
| ex | 9114 00 00 | Other clock or watch parts |

(19) Musical instruments of a value exceeding EUR 1 500

| | | |
|----|------------|--|
| ex | 9201 00 00 | Pianos, including automatic pianos; harpsichords and other keyboard stringed instruments |
| ex | 9202 00 00 | Other string musical instruments (for example, guitars, violins, harps) |
| ex | 9205 00 00 | Wind musical instruments (for example, keyboard pipe organs, accordions, clarinets, trumpets, bagpipes), other than fairground organs and mechanical street organs |
| ex | 9206 00 00 | Percussion musical instruments (for example, drums, xylophones, cymbals, castanets, maracas) |
| ex | 9207 00 00 | Musical instruments, the sound of which is produced, or must be amplified, electrically (for example, organs, guitars, accordions) |

(20) Works of art, collectors' pieces and antiques

| | | |
|----|------|---|
| ex | 9700 | Works of art, collectors' pieces and antiques |
|----|------|---|

(21) Articles and equipment for sports, including skiing, golf, diving and water sports

| | | |
|----|------------|----------------------------------|
| ex | 4015 19 00 | Other |
| ex | 4015 90 00 | Other |
| ex | 6210 40 00 | Other men's or boys' garments |
| ex | 6210 50 00 | Other women's or girls' garments |
| ex | 6211 11 00 | Men's or boys' |
| ex | 6211 12 00 | Women's or girls' |
| ex | 6211 20 00 | Ski suits |
| ex | 6216 00 00 | Gloves, mittens and mitts |

| | | |
|----|------------|--|
| ex | 6402 12 00 | Ski-boots, cross-country ski footwear and snowboard boots |
| ex | 6402 19 00 | Other |
| ex | 6403 12 00 | Ski-boots, cross-country ski footwear and snowboard boots |
| ex | 6403 19 00 | Other |
| ex | 6404 11 00 | Sports footwear; tennis shoes, basketball shoes, gym shoes, training shoes and the like |
| ex | 6404 19 90 | Other |
| ex | 9004 90 00 | Other |
| ex | 9020 00 00 | Other breathing appliances and gas masks, excluding protective masks having neither mechanical parts nor replaceable filters |
| ex | 9506 11 00 | Skis |
| ex | 9506 12 00 | Ski-fastenings (ski-bindings) |
| ex | 9506 19 00 | Other |
| ex | 9506 21 00 | Sailboards |
| ex | 9506 29 00 | Other |
| ex | 9506 31 00 | Clubs, complete |
| ex | 9506 32 00 | Golf balls |
| ex | 9506 39 00 | Other |
| ex | 9506 40 00 | Articles and equipment for table tennis |
| ex | 9506 51 00 | Lawn-tennis rackets, whether or not strung |
| ex | 9506 59 00 | Other |
| ex | 9506 61 00 | Lawn-tennis balls |

| | | |
|----|------------|---|
| ex | 9506 69 10 | Cricket and polo balls |
| ex | 9506 69 90 | Other |
| ex | 9506 70 | Ice skates and roller skates, including skating boots with skates attached |
| ex | 9506 91 | Articles and equipment for general physical exercise, gymnastics or athletics |
| ex | 9506 99 10 | Cricket and polo equipment, other than balls |
| ex | 9506 99 90 | Other |
| ex | 9507 00 00 | Fishing rods, fish-hooks and other line fishing tackle; fish landing nets, butterfly nets and similar nets; decoy "birds" (other than those of heading 9208 or 9705) and similar hunting or shooting requisites |

(22) Articles and equipment for billiard, automatic bowling, casino games and games operated by coins or banknotes

| | | |
|----|------------|--|
| ex | 9504 20 00 | Articles and accessories for billiards of all kinds |
| ex | 9504 30 00 | Other games, operated by coins, banknotes, bank cards, tokens or by any other means of payment, other than automatic bowling alley equipment |
| ex | 9504 40 00 | Playing cards |
| ex | 9504 50 00 | Video game consoles and machines, other than those of subheading 9504 30 |
| ex | 9504 90 80 | Other |

(23) Optical articles and equipment of any value

| | | |
|----|------------|--|
| ex | 9004 90 90 | Night Vision Equipment, or Thermal Sight Equipment |
| ex | 9013 80 90 | Red Dot Sights |

ANNEX VII

Annex XXI to Regulation (EU) No 833/2014 is replaced by the following:

‘ XXI

List of goods and technology referred to in Article 3i

| CN code | Name of the good |
|----------|---|
| 0306 | Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; smoked crustaceans, whether in shell or not, whether or not cooked before or during the smoking process; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted or in brine |
| 16043100 | Caviar |
| 16043200 | Caviar substitutes |
| 2208 | Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80 % vol; spirits, liqueurs and other spirituous beverages |
| 2303 | Residues of starch manufacture and similar residues, beet-pulp, bagasse and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets |
| 2402 | Cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes |
| 2523 | Portland cement, aluminous cement, slag cement, supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers |
| 2701 | Coal; briquettes, ovoids and similar solid fuels manufactured from coal |
| 2702 | Lignite, whether or not agglomerated, excluding jet |
| 2703 | Peat, including peat litter, whether or not agglomerated |

| CN code | Name of the good |
|---------|--|
| 2704 | Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon |
| 2705 | Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons |
| 2706 | Tar distilled from coal, from lignite or from peat, and other mineral tars, whether or not dehydrated or partially distilled, including reconstituted tars |
| 2707 | Oils and other products of the distillation of high temperature coal tar; similar products in which the weight of the aromatic constituents exceeds that of the non-aromatic constituents |
| 2708 | Pitch and pitch coke, obtained from coal tar or from other mineral tars |
| 2712 | petroleum jelly, paraffin wax, micro-crystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products obtained by synthesis or by other processes, whether or not coloured |
| 2713 | petroleum coke, petroleum bitumen and other residues of petroleum oil or of oil obtained from bituminous minerals |
| 2714 | bitumen and asphalt, natural; bituminous or oil-shale and tar sands; asphaltites and asphaltic rocks |
| 2715 | bituminous mastics, cut-backs and other bituminous mixtures based on natural asphalt, on natural bitumen, on petroleum bitumen, on mineral tar or on mineral tar pitch |
| 2803 | carbon (carbon blacks and other forms of carbon not elsewhere specified or included) |
| 2811 | inorganic acids and inorganic oxygen compounds of non-metals (excl. hydrogen chloride "hydrochloric acid", chlorosulphuric acid, sulphuric acid, oleum, nitric acid, sulphonitric acids, diphosphorus pentoxide, phosphoric acid, polyphosphoric acids, oxides of boron and boric acids) |
| 2818 | artificial corundum, whether or not chemically defined; aluminium oxide; aluminium hydroxide |

| CN code | Name of the good |
|---------|---|
| ex 2825 | Hydrazine and hydroxylamine and their inorganic salts; other inorganic bases; other metal oxides, hydroxides and peroxides, except for CN codes 28252000 and 28253000 |
| 2834 | nitrites; nitrates |
| ex 2835 | Phosphinates (hypophosphites), phosphonates (phosphites) and phosphates; polyphosphates, whether or not chemically defined, except for CN code 28352600 |
| 2836 | carbonates; peroxocarbonates "percarbonates"; commercial ammonium carbonate containing ammonium carbamate |
| ex 2901 | Acyclic hydrocarbons, except for CN code 29011000 |
| 2902 | Cyclic hydrocarbons |
| 2903 | halogenated derivatives of hydrocarbons |
| 2905 | Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2907 | Phenols; phenol-alcohols |
| 2909 | Ethers, ether-alcohols, ether-phenols, ether-alcohol-phenols, alcohol peroxides, ether peroxides, acetal and hemiacetal peroxides, ketone peroxides (whether or not chemically defined), and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2914 | ketones and quinones, whether or not with other oxygen function, and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2915 | saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2917 | polycarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2922 | oxygen-function amino-compounds |
| 2923 | quaternary ammonium salts and hydroxides; lecithins and other phosphoaminolipids, whether or not chemically defined |

| CN code | Name of the good |
|-------------|--|
| 2931 | separate chemically defined organo-inorganic compounds (excl. organo-sulphur compounds and those of mercury) |
| 2933 | heterocyclic compounds with nitrogen hetero-atom[s] only |
| 310420 | Potassium chloride |
| 310520 | Mineral or chemical fertilisers containing the three fertilising elements nitrogen, phosphorus and potassium |
| 310560 | Mineral or chemical fertilisers containing the two fertilising elements phosphorus and potassium |
| ex 31059020 | Other fertilising containing potassium chloride |
| ex 31059080 | Other fertilising containing potassium chloride |
| 3301 | essential oils, whether or not terpenoid, incl. concretes and absolutes; resinoids; extracted oleoresins; concentrates of essential oils in fats, fixed oils, waxes or the like, obtained by enfleurage or maceration; terpenic by-products of the distillation of essential oils; aqueous distillates and aqueous solutions of essential oils |
| 3304 | beauty or make-up preparations and preparations for the care of the skin, incl. sunscreen or suntan preparations (excl. medicaments); manicure or pedicure preparations |
| 3305 | preparations for use on the hair |
| 3306 | preparations for oral or dental hygiene, incl. denture fixative pastes and powders; yarn used to clean between the teeth "dental floss", in individual retail packages |
| 3307 | shaving preparations, incl. pre-shave and aftershave products, personal deodorants, bath and shower preparations, depilatories and other perfumery, toilet or cosmetic preparations, n.e.s.; prepared room deodorisers, whether or not perfumed or having disinfectant properties |

| CN code | Name of the good |
|---------|---|
| 3401 | soap; organic surface-active products and preparations for use as soap, in the form of bars, cakes, moulded pieces or shapes, whether or not containing soap; organic surface-active products and preparations for washing the skin, in the form of liquid or cream and put up for retail sale, whether or not containing soap; paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent |
| 3402 | organic surface-active agents (excl. soap); surface-active preparations, washing preparations, incl. auxiliary washing preparations, and cleaning preparations, whether or not containing soap (excl. those of heading 3401) |
| 3404 | artificial waxes and prepared waxes |
| 3801 | artificial graphite; colloidal or semi-colloidal graphite; preparations based on graphite or other carbon in the form of pastes, blocks, plates or other semi-manufactures |
| 3811 | anti-knock preparations, oxidation inhibitors, gum inhibitors, viscosity improvers, anti-corrosive preparations and other prepared additives, for mineral oils, incl. gasoline, or for other liquids used for the same purposes as mineral oils |
| 3812 | prepared rubber accelerators; compound plasticisers for rubber or plastics, n.e.s.; anti-oxidising preparations and other compound stabilisers for rubber or plastics |
| 3817 | mixed alkylbenzenes and mixed alkyl-naphthalenes produced by the alkylation of benzene and naphthalene (excl. mixed isomers of cyclic hydrocarbons) |
| 3819 | hydraulic brake fluids and other prepared liquids for hydraulic transmission not containing petroleum oil or bituminous mineral oil, or containing < 70 % petroleum oil or bituminous mineral oil by weight |
| 3823 | industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols |
| 3824 | prepared binders for foundry moulds or cores; chemical products and preparations for the chemical or allied industries, incl. mixtures of natural products, n.e.s. |
| 3901 | polymers of ethylene, in primary forms |

| CN code | Name of the good |
|---------|--|
| 3902 | Polymers of propylene or of other olefins, in primary forms |
| 3903 | polymers of styrene, in primary forms |
| 3904 | polymers of vinyl chloride or of other halogenated olefins, in primary forms |
| 3907 | polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms |
| 3908 | polyamides, in primary forms |
| 3916 | monofilament of which any cross-sectional dimension > 1 mm, rods, sticks and profile shapes, of plastics, whether or not surface-worked but not further worked |
| 3917 | tubes, pipes and hoses, and fittings therefor, e.g. joints, elbows, flanges, of plastics |
| 3919 | self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes, of plastics, whether or not in rolls (excl. floor, wall and ceiling coverings of heading 3918) |
| 3920 | plates, sheets, film, foil and strip, of non-cellular plastics, not reinforced, laminated, supported or similarly combined with other materials, without backing, unworked or merely surface-worked or merely cut into squares or rectangles (excl. self-adhesive products, and floor, wall and ceiling coverings of heading 3918) |
| 3921 | plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials, or of cellular plastic, unworked or merely surface-worked or merely cut into squares or rectangles (excl. self-adhesive products, floor, wall and ceiling coverings of heading 3918) |
| 3923 | articles for the conveyance or packaging of goods, of plastics; stoppers, lids, caps and other closures, of plastics |
| 3925 | builders' ware of plastics, n.e.s. |
| 3926 | articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s. |

| CN code | Name of the good |
|---------|---|
| 4002 | synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of natural rubber, balata, gutta-percha, guayule, chicle or similar types of natural rubber with synthetic rubber or factice, in primary forms or in plates, sheets or strip |
| 4011 | New pneumatic tyres, of rubber |
| 4107 | leather further prepared after tanning or crusting "incl. parchment-dressed leather", of bovine "incl. buffalo" or equine animals, without hair on, whether or not split (excl. chamois leather, patent leather and patent laminated leather, and metallised leather) |
| 4202 | trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling-bags, insulated food or beverage bags, toilet bags, rucksacks, handbags, shopping-bags, wallets, purses, map-cases, cigarette-cases, tobacco-pouches, tool bags, sports bags, bottle-cases, jewellery boxes, powder-boxes, cutlery cases and similar containers, of leather or of composition leather, of sheeting of plastics, of textile materials, of vulcanised fibre or of paperboard, or wholly or mainly covered with such materials or with paper |
| 4301 | raw furskins, incl. heads, tails, paws and other pieces or cuttings suitable for use in furriery (excl. raw hides and skins of heading 4101, 4102 or 4103) |
| 44 | Wood and articles of wood; wood charcoal |
| 4703 | chemical wood pulp, soda or sulphate (excl. dissolving grades) |
| 4705 | Wood pulp obtained by a combination of mechanical and chemical pulping processes |
| 4801 | newsprint as specified in note 4 to chapter 48, in rolls of a width > 28 cm or in square or rectangular sheets with one side > 28 cm and the other side > 15 cm in the unfolded state |

| CN code | Name of the good |
|---------|---|
| 4802 | uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and non-perforated punchcards and punch-tape paper, in rolls or in square or rectangular sheets, of any size, and handmade paper and paperboard (excl. newsprint of heading 4801 and paper of heading 4803) |
| 4803 | toilet or facial tissue stock, towel or napkin stock and similar paper for household or sanitary purposes, cellulose wadding and webs of cellulose fibres, whether or not creped, crinkled, embossed, perforated, surface-coloured, surface-decorated or printed, in rolls of a width > 36 cm or in square or rectangular sheets with one side > 36 cm and the other side > 15 cm in the unfolded state |
| 4804 | uncoated kraft paper and paperboard, in rolls of a width > 36 cm or in square or rectangular sheets with one side > 36 cm and the other side > 15 cm in the unfolded state (excl. goods of heading 4802 or 4803) |
| 4805 | other paper and paperboard, uncoated, in rolls of a width > 36 cm or in square or rectangular sheets with one side > 36 cm and the other side > 15 cm in the unfolded state, not worked other than as specified in note 3 to this chapter, n.e.s. |
| 4810 | paper and paperboard, coated on one or both sides with kaolin "china clay" or other inorganic substances, with or without a binder, and with no other coating, whether or not surface-coloured, surface-decorated or printed, in rolls or in square or rectangular sheets, of any size (excl. all other coated papers and paperboards) |
| 4811 | paper, paperboard, cellulose wadding and webs of cellulose fibres, coated, impregnated, covered, surface-coloured, surface-decorated or printed, in rolls or in square or rectangular sheets, of any size (excl. goods of heading 4803, 4809 and 4810) |
| 4818 | toilet paper and similar paper, cellulose wadding or webs of cellulose fibres, of a kind used for household or sanitary purposes, in rolls of a width <= 36 cm, or cut to size or shape; handkerchiefs, cleansing tissues, towels, tablecloths, serviettes, bedsheets and similar household, sanitary or hospital articles, articles of apparel and clothing accessories, of paper pulp, paper, cellulose wadding or webs of cellulose fibres |

| CN code | Name of the good |
|---------|--|
| 4819 | cartons, boxes, cases, bags and other packing containers, of paper, paperboard, cellulose wadding or webs of cellulose fibres, n.e.s.; box files, letter trays, and similar articles, of paperboard of a kind used in offices, shops or the like |
| 4823 | paper, paperboard, cellulose wadding and webs of cellulose fibres, in strips or rolls of a width ≤ 36 cm, in rectangular or square sheets of which no side > 36 cm in the unfolded state, or cut to shape other than rectangular or square, and articles of paper pulp, paper, paperboard, cellulose wadding or webs or cellulose fibres, n.e.s. |
| 5402 | synthetic filament yarn, incl. synthetic monofilaments of < 67 decitex (excl. sewing thread and yarn put up for retail sale) |
| 5601 | wadding of textile materials and articles thereof; textile fibres with a length of ≤ 5 mm "flock", textile dust and mill neps (excl. wadding and articles thereof impregnated or coated with pharmaceutical substances or put up for retail sale for medical, surgical, dental or veterinary purposes, and products impregnated, coated or covered with perfumes, cosmetics, soaps etc.) |
| 5603 | nonwovens, whether or not impregnated, coated, covered or laminated, n.e.s. |
| 6204 | women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (excl. knitted or crocheted, wind-jackets and similar articles, slips, petticoats and panties, tracksuits, ski suits and swimwear) |
| 6305 | sacks and bags, of a kind used for the packing of goods, of all types of textile materials |
| 6403 | footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather (excl. orthopaedic footwear, skating boots with ice or roller skates attached, and toy footwear) |
| 6806 | slag-wool, rock-wool and similar mineral wools; exfoliated vermiculite, expanded clays, foamed slag and similar expanded mineral materials; mixtures and articles of heat-insulating, sound-insulating or sound absorbing mineral materials (excl. articles of light concrete, asbestos, asbestos-cement, cellulose fibre-cement or the like, mixtures and other articles of or based on asbestos, and ceramic products) |

| CN code | Name of the good |
|---------|--|
| 6807 | articles of asphalt or of similar materials, e.g. petroleum bitumen or coal tar pitch |
| 6808 | panels, boards, tiles, blocks and similar articles of vegetable fibre, of straw or of shavings, chips, particles, sawdust or other waste of wood, agglomerated with cement, plaster or other mineral binders (excl. articles of asbestos-cement, cellulose fibre-cement or the like) |
| 6810 | Articles of cement, of concrete or of artificial stone, whether or not reinforced |
| 6814 | worked mica and articles of mica, incl. agglomerated or reconstituted mica, whether or not on a support of paper, paperboard or other materials (excl. electrical insulators, insulating fittings, resistors and capacitors, protective goggles of mica and their glasses, and mica in the form of christmas tree decorations) |
| 6815 | articles of stone or of other mineral substances, incl. carbon fibres, articles of carbon fibres and articles of peat, n.e.s. |
| 6902 | refractory bricks, blocks, tiles and similar refractory ceramic constructional goods (excl. those of siliceous fossil meals or similar siliceous earths) |
| 6907 | ceramic flags and paving, hearth or wall tiles; ceramic mosaic cubes and the like, whether or not on a backing (excl. of siliceous fossil meals or similar siliceous earths, refractory goods, tiles specially adapted as table mats, ornamental articles and tiles specifically manufactured for stoves) |
| 7005 | Float glass and surface ground or polished glass, in sheets, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked |
| 7007 | Safety glass, consisting of toughened (tempered) or laminated glass |
| 7010 | Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass |
| 7019 | Glass fibres (including glass wool) and articles thereof (for example, yarn, rovings, woven fabrics) |

| CN code | Name of the good |
|---------|---|
| 7104 | precious and semi-precious stones, synthetic or reconstructed, whether or not worked or graded but not strung, mounted or set; ungraded synthetic or reconstructed precious or semi-precious stones, temporarily strung for convenience of transport |
| 7106 | Silver (including silver plated with gold or platinum), unwrought or in semi-manufactured forms, or in powder form |
| 7112 | waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal or precious-metal compounds, of a kind used principally for the recovery of precious metal (excl. waste and scrap melted down into unworked blocks, ingots, or similar forms) |
| 7115 | articles of precious metal or of metal clad with precious metal, n.e.s. |
| 7606 | Aluminium plates, sheets and strip, of a thickness exceeding 0,2 mm |
| 7801 | Unwrought lead |
| 8207 | tools, interchangeable, for hand tools, whether or not power-operated, or for machine tools "e.g. for pressing, stamping, punching, tapping, threading, drilling, boring, broaching, milling, turning or screw driving", incl. dies for drawing or extruding metal, and rock-drilling or earth-boring tools |
| 8212 | non-electric razors and razor blades of base metal, incl. razor blade blanks in strips |
| 8302 | base metal mountings, fittings and similar articles suitable for furniture, doors, staircases, windows, blinds, coachwork, saddlery, trunks, chests, caskets or the like; base metal hat-racks, hat-pegs, brackets and similar fixtures; castors with mountings of base metal; automatic door closers of base metal |
| 8309 | stoppers, caps and lids, incl. crown corks, screw caps and pouring stoppers, capsules for bottles, threaded bungs, bung covers, seals and other packing accessories, of base metal |

| CN code | Name of the good |
|---------|--|
| 8407 | spark-ignition reciprocating or rotary internal combustion piston engine |
| 8408 | compression-ignition internal combustion piston engine "diesel or semi-diesel engine" |
| 8409 | parts suitable for use solely or principally with internal combustion piston engine of heading 8407 or 8408 |
| ex 8411 | Turbojets, turbopropellers and other gas turbines with the exception of parts of turbojets or turbopropellers of CN code 8411 91 00 |
| 8412 | engines and motors (excl. steam turbines, internal combustion piston engine, hydraulic turbines, water wheels, gas turbines and electric motors); parts thereof |
| 8413 | pumps for liquids, whether or not fitted with a measuring device (excl. ceramic pumps and secretion aspirating pumps for medical use and medical pumps carried on or implanted in the body); liquid elevators (excl. pumps); parts thereof |
| 8414 | air or vacuum pumps (excl. gas compound elevators and pneumatic elevators and conveyors); air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; parts thereof |
| 8418 | refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps; parts thereof (excl. air conditioning machines of heading 8415) |
| 8419 | machinery, plant or laboratory equipment whether or not electrically heated (excl. furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilising, pasteurising, steaming, drying, evaporating, vaporising, condensing or cooling (excl. those used for domestic purposes); instantaneous or storage water heaters, non-electric; parts thereof |
| 8421 | centrifuges, incl. centrifugal dryers (excl. those for isotope separation); filtering or purifying machinery and apparatus, for liquids or gases; parts thereof (excl. artificial kidneys) |

| CN code | Name of the good |
|---------|---|
| 8422 | dishwashing machines; machinery for cleaning or drying bottles or other containers; machinery for filling, closing, sealing or labelling bottles, cans, boxes, bags or other containers; machinery for capsuling bottles, jars, tubes and similar containers; other packing or wrapping machinery, incl. heat-shrink wrapping machinery; machinery for aerating beverages; parts thereof |
| 8424 | mechanical appliances, whether or not hand-operated, for projecting, dispersing or spraying liquids or powders, n.e.s.; fire extinguishers, charged or not (excl. fire-extinguishing bombs and grenades); spray guns and similar appliances (excl. electric machines and apparatus for hot spraying of metals or sintered metal carbides of heading 8515); steam or sand blasting machines and similar jet projecting machines; parts thereof, n.e.s. |
| 8426 | ships' derricks; cranes, incl. cable cranes (excl. wheel-mounted cranes and vehicle cranes for railways); mobile lifting frames, straddle carriers and works trucks fitted with a crane |
| 8431 | Parts suitable for use solely or principally with the machinery of headings 8425 to 8430 |
| 8450 | household or laundry-type washing machines, incl. machines which both wash and dry; parts thereof |
| 8455 | metal-rolling mills and rolls therefor; parts of metal-rolling mills |
| 8466 | parts and accessories suitable for use solely or principally with the machines of headings 8456 to 8465, incl. work or tool holders, self-opening dieheads, dividing heads and other special attachments for the machines, n.e.s.; tool holders for any type of tool for working in the hand |
| 8467 | tools for working in the hand, pneumatic, hydraulic or with self-contained electric or non-electric motor; parts thereof |
| 8471 | automatic data-processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, n.e.s. |

| CN code | Name of the good |
|---------|--|
| 8474 | machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid, incl. powder or paste, form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand; parts thereof |
| 8477 | machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter, parts thereof |
| 8479 | machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof |
| 8480 | moulding boxes for metal foundry; mould bases; moulding patterns; moulds for metal (other than ingot moulds), metal carbides, glass, mineral materials, rubber or plastics (excl. moulds of graphite or other carbons, ceramic or glass moulds and linotype moulds or matrices) |
| 8481 | taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, incl. pressure-reducing valves and thermostatically controlled valves; parts thereof |
| 8482 | ball or roller bearings (excl. steel balls of heading 7326); parts thereof |
| 8483 | transmission shafts, incl. camshafts and crankshafts, and cranks; bearing housings and plain shaft bearings for machines; gears and gearing; ball or roller screws, gear boxes and other speed changers, incl. torque converters; flywheels and pulleys, incl. pulley blocks, clutches and shaft couplings, incl. universal joints; parts thereof |
| 8487 | machinery parts, n.e.s. in chapter 84 (excl. parts containing electrical connectors, insulators, coils, contacts or other electrical features) |
| 8501 | electric motors and generators (excl. generating sets) |
| 8502 | electric generating sets and rotary converters |

| CN code | Name of the good |
|---------|--|
| 8503 | parts suitable for use solely or principally with electric motors and generators, electric generating sets and rotary converters, n.e.s. |
| 8504 | electrical transformers, static converters, e.g. rectifiers, and inductors; parts thereof |
| 8511 | electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines, e.g. ignition magnetos, magneto-dynamos, ignition coils, sparking plugs, glow plugs and starter motors; generators, e.g. dynamos and alternators, and cut-outs of a kind used in conjunction with such engines; parts thereof |
| 8516 | electric instantaneous or storage water heaters and immersion heaters; electric space-heating apparatus and soil-heating apparatus; electro-thermic hairdressing apparatus, e.g. hairdryers, hair curlers and curling tong heaters, and hand dryers; electric smoothing irons; other electro-thermic appliances of a kind used for domestic purposes; electric heating resistors (other than those of heading 8545); parts thereof |
| 8517 | telephone sets, incl. telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, incl. apparatus for communication in a wired or wireless network [such as a local or wide area network]; parts thereof (excl. than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528) |
| 8523 | discs, tapes, solid-state non-volatile storage devices, "smart cards" and other media for the recording of sound or of other phenomena, whether or not recorded, incl. matrices and masters for the production of discs (excl. products of chapter 37) |
| 8525 | transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders |
| 8526 | radar apparatus, radio navigational aid apparatus and radio remote control apparatus |

| CN code | Name of the good |
|---------|--|
| 8531 | electric sound or visual signalling apparatus, e.g. bells, sirens, indicator panels, burglar or fire alarms (excl. those for cycles, motor vehicles and traffic signalling); parts thereof |
| 8535 | electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits, e.g., switches, fuses, lightning arresters, voltage limiters, surge suppressors, plugs and other connectors, junction boxes, for a voltage > 1.000 V (excl. control desks, cabinets, panels etc. of heading 8537) |
| 8536 | electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits, e.g., switches, relays, fuses, surge suppressors, plugs, sockets, lamp holders and junction boxes, for a voltage <= 1.000 V (excl. control desks, cabinets, panels etc. of heading 8537) |
| 8537 | boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, incl. those incorporating instruments or apparatus of chapter 90, and numerical control apparatus (excl. switching apparatus for line telephony or line telegraphy) |
| 8538 | parts suitable for use solely or principally with the apparatus of heading 8535, 8536 or 8537, n.e.s. |
| 8539 | electric filament or discharge lamps, incl. sealed beam lamp units and ultraviolet or infra-red lamps; arc lamps; light-emitting diode "led" lamps; parts thereof |
| 8541 | diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, incl. photovoltaic cells whether or not assembled in modules or made up into panels (excl. photovoltaic generators); light emitting diodes "led"; mounted piezoelectric crystals; parts thereof |
| 8542 | electronic integrated circuits; parts thereof |
| 8543 | electrical machines and apparatus, having individual functions, n.e.s. in chapter 85 and parts thereof |

| CN code | Name of the good |
|---------|--|
| 8544 | insulated "incl. enamelled or anodised" wire, cable "incl. coaxial cable" and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors |
| 8545 | carbon electrodes, carbon brushes, lamp carbons, battery carbons and other articles of graphite or other carbon, with or without metal, of a kind used for electrical purposes |
| 8603 | self-propelled railway or tramway coaches, vans and trucks (excl. those of heading 8604) |
| 8606 | railway or tramway goods vans and wagons (excl. self-propelled and luggage vans and post office coaches) |
| 8701 | tractors (other than tractors of heading 8709) |
| 8703 | motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars (excl. motor vehicles of heading 8702) |
| 8704 | motor vehicles for the transport of goods, incl. chassis with engine and cab |
| 8716 | trailers and semi-trailers; other vehicles, not mechanically propelled (excl. railway and tramway vehicles); parts thereof, n.e.s. |
| 8802 | powered aircraft "e.g. helicopters and aeroplanes"; spacecraft, incl. satellites, and suborbital and spacecraft launch vehicles |
| 8901 | Cruise ships, excursion boats, ferry-boats, cargo ships, barges and similar vessels for the transport of persons or goods |
| 8903 | yachts and other vessels for pleasure or sports; rowing boats and canoes |
| 8904 | Tugs and pusher craft |
| 8905 | Light-vessels, fire-floats, dredgers, floating cranes, and other vessels the navigability of which is subsidiary to their main function; floating docks; floating or submersible drilling or production platforms |

| CN code | Name of the good |
|---------|--|
| 9001 | optical fibres and optical fibre bundles; optical fibre cables (excl. made up of individually sheathed fibres of heading 8544); sheets and plates of polarising material; lenses, incl. contact lenses, prisms, mirrors and other optical elements of any material, unmounted (excl. such elements of glass not optically worked) |
| 9006 | photographic cameras, photographic flashlight apparatus and flashbulbs (excl. discharge lamps of heading 8539) |
| 9013 | liquid crystal devices not constituting articles provided for more specifically in other heading; lasers (excl. laser diodes); other optical appliances and instruments not elsewhere specified in chapter 90 |
| 9014 | direction finding compasses; other navigational instruments and appliances (excl. radio navigational equipment) |
| 9026 | instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases, e.g. flow meters, level gauges, manometers, heat meters (excl. instruments and apparatus of heading 9014, 9015, 9028 or 9032) |
| 9027 | instruments and apparatus for physical or chemical analysis, e.g. polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus; instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light, incl. exposure meters; microtomes |
| 9030 | oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities (excl. meters of heading 9028); instruments and apparatus for measuring or detecting alpha, beta, gamma, x-ray, cosmic or other ionising radiations |
| 9031 | measuring or checking instruments, appliances and machines not elsewhere specified in chapter 90; profile projectors |

| CN code | Name of the good |
|---------|--|
| 9032 | regulating or controlling instruments and apparatus (excl. taps, cocks and valves of heading 8481) |
| 9401 | seats, whether or not convertible into beds, and parts thereof, n.e.s. (excl. medical, surgical, dental or veterinary of heading 9402) |
| 9403 | Other furniture and parts thereof |
| 9404 | mattress supports (excl. spring interiors for seats); articles of bedding and similar furnishing, e.g. mattresses, quilts, eiderdowns, cushions, pouffes and pillows, fitted with springs or stuffed or internally filled with any material or of cellular rubber or plastics, whether or not covered (excl. pneumatic or water mattresses and pillows, blankets and covers) |
| 9405 | lamps and lighting fittings, incl. searchlights and spotlights, and parts thereof, n.e.s.; illuminated signs, illuminated nameplates and the like having a permanently fixed light source, and parts thereof, n.e.s. |
| 9406 | prefabricated buildings, whether or not complete or already assembled |

ANNEX VIII

Annex XXIII to Regulation (EU) No 833/2014 is replaced by the following:

‘ XXIII

List of goods and technology as referred to in Article 3k

| CN code | Description |
|---------|--|
| 0601 | Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant, in growth or in flower, chicory plants and roots other than roots of heading 1212 |
| 060230 | Rhododendrons and azaleas, grafted or not |
| 060240 | Roses, grafted or not |
| 060290 | Other live plants (including their roots), cuttings and slips; mushroom spawn – Other |
| 060420 | Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens, being goods of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated or otherwise prepared – Fresh |
| 2508 | Clays, andalusite, kyanite and sillimanite, whether or not calcined; mullite; chamotte or dinas earths (excl. kaolin and other kaolinic clays, and expanded clay) |
| 2509 | Chalk |
| 2512 | Siliceous fossil meals (for example, kieselguhr, tripolite and diatomite) and similar siliceous earths, whether or not calcined, of an apparent specific gravity of 1 or less |
| 2515 | Marble, travertine, ecaussine and other calcareous monumental or building stone of an apparent specific gravity of $\geq 2,5$, and alabaster, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a square or rectangular shape |
| 251820 | Calcined or sintered dolomite |

| CN code | Description |
|---------|---|
| 251910 | Natural magnesium carbonate (magnesite) |
| 252010 | Gypsum; anhydrite |
| 2521 | Limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of lime or cement |
| 2522 | Quicklime, slaked lime and hydraulic lime other than calcium oxide and hydroxide of heading 2825 |
| 2525 | Mica, whether or not rifted into sheets or splittings; mica waste |
| 2526 | Natural steatite, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape; talc |
| 253020 | Kieserite, epsomite (natural magnesium sulphates) |
| 2701 | Coal; briquettes, ovoids and similar solid fuels manufactured from coal |
| 2702 | Lignite, whether or not agglomerated, excluding jet |
| 2703 | Peat (including peat litter), whether or not agglomerated |
| 2704 | Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon |
| 270730 | Xylol (xylenes) |
| 2708 | Pitch and Pitch coke, obtained from coal tar or from other mineral tars |
| 2710 | Petroleum oils and oils obtained from bituminous minerals (excl. crude); preparations containing ≥ 70 % by weight of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, n.e.s.; waste oils containing mainly petroleum or bituminous minerals |
| 2712 | Petroleum jelly, paraffin wax, micro-crystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products obtained by synthesis or by other processes, whether or not coloured |

| CN code | Description |
|---------|--|
| 2715 | Bituminous mastics, cut-backs and other bituminous mixtures based on natural asphalt, on natural bitumen, on petroleum bitumen, on mineral tar or on mineral tar pitch - Other |
| ex 2804 | Hydrogen and other non-metals (excluding rare gases) |
| 2806 | Hydrogen chloride "hydrochloric acid"; chlorosulphuric acid |
| 281129 | Other inorganic oxygen compounds of non-metals - Other |
| 281310 | Carbon disulphide |
| 2814 | Ammonia, anhydrous or in aqueous solution |
| 281512 | Sodium hydroxide (caustic soda) - In aqueous solution (soda lye or liquid soda) |
| 281830 | aluminium hydroxide |
| 2819 | Chromium oxides and hydroxides |
| 2820 | Manganese oxides |
| 282731 | Other chlorides - Of magnesium |
| 282735 | Other chlorides - Of nickel |
| 2828 | Hypochlorites; commercial calcium hypochlorite; chlorites; hypobromites |
| 282911 | Chlorates - Of sodium |
| 283220 | Sulphites (excluding sodium) |
| 283324 | Sulphates of nickel |
| 283330 | Alums |
| 283410 | Nitrites |
| 283630 | Sodium hydrogencarbonate (sodium bicarbonate) |
| 283650 | Calcium carbonate |
| 2839 | Silicates; commercial alkali metal silicates |

| CN code | Description |
|---------|--|
| 284030 | Peroxoborates (perborates) |
| 284150 | Other chromates and dichromates; peroxochromates |
| 284180 | Tungstates (wolframates) |
| 2843 | Colloidal precious metals; inorganic or organic compounds of precious metals, whether or not chemically defined; amalgams of precious metals |
| 2847 | Hydrogen peroxide, whether or not solidified with urea |
| 2901 | Acyclic hydrocarbons |
| 2902 | Cyclic hydrocarbons |
| 2903 | Halogenated derivatives of hydrocarbons |
| 2904 | Sulphonated, nitrated or nitrosated derivatives of hydrocarbons, whether or not halogenated |
| 290513 | Butan-1-ol (n-butyl alcohol) |
| 290516 | Octanol (octyl alcohol) and isomers thereof |
| 290519 | Saturated monohydric alcohols - Other |
| 290541 | 2-Ethyl-2-(hydroxymethyl)propane-1,3-diol (trimethylolpropane) |
| 290559 | Other polyhydric alcohols - Other |
| 2906 | Cyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2907 | Phenols; phenol-alcohols |
| 2909 | Ethers, ether-alcohols, ether-phenols, ether-alcohol-phenols, alcohol peroxides, ether peroxide, ketone peroxides, whether or not chemically defined, and their halogenated, sulphonated, nitrated or nitrosated derivatives |

| CN code | Description |
|---------|---|
| 2910 | Epoxides, epoxyalcohols, epoxyphenols and epoxyethers, with a three-membered ring, and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2911 | Acetals and hemiacetals, whether or not with other oxygen function, and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 2912 | Aldehydes, whether or not with other oxygen function; cyclic polymers of aldehydes; paraformaldehyde |
| 291411 | Acetone |
| 291461 | Anthraquinone |
| 291513 | Esters of formic acid |
| 291590 | Saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives - Other |
| 2916 | Unsaturated acyclic monocarboxylic acids, cyclic monocarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives |
| 291733 | Dinonyl or didecyl orthophthalates |
| 292011 | Parathion (ISO) and parathion-methyl (ISO) (methyl-parathion) |
| 292122 | Hexamethylenediamine and its salts |
| 292141 | Aniline and its salts |
| 292211 | Monoethanolamine and its salts |
| 292243 | Anthranilic acid and its salts |

| CN code | Description |
|---------|---|
| 292320 | Lecithins and other phosphoaminolipids |
| 293040 | Methionine |
| 293354 | Other derivatives of malonylurea (barbituric acid); salts thereof |
| 293371 | 6-Hexanelactam (epsilon-caprolactam) |
| 3201 | Tanning extracts of vegetable origin; tannins and their salts, ethers, esters and other derivatives |
| 3202 | Synthetic organic tanning substances; inorganic tanning substances; tanning preparations, whether or not containing natural tanning substances; enzymatic preparations for pre-tanning |
| 3203 | colouring matter of vegetable or animal origin, incl. dye extracts (excl. animal black), whether or not chemically defined; preparations based on colouring matter of vegetable or animal origin of a kind used to dye fabrics or produce colorant preparations (excl. preparations of heading 3207, 3208, 3209, 3210, 3213 and 3215) - Other |
| 320490 | Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in note 3 to this chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as luminophores, whether or not chemically defined |
| 3205 | colour lakes (other than chinese or japanese lacquer and paints); preparations based on colour lakes of a kind used to dye fabrics or produce colorant preparations (excl. preparations of heading 3207, 3208, 3209, 3210, 3213 and 3215) |
| 320641 | ultramarine and preparations based thereon of a kind used for colouring any material or produce colorant preparations (excl. preparations of heading 3207, 3208, 3209, 3210, 3213 and 3215) |

| CN code | Description |
|---------|---|
| 320649 | inorganic or mineral colouring matter, n.e.s.; preparations based on inorganic or mineral colouring matter of a kind used for colouring any material or produce colorant preparations, n.e.s. (excl. preparations of heading 3207, 3208, 3209, 3210, 3213 and 3215 and inorganic products of a kind used as liminophores) - Other |
| 3207 | Prepared pigments, prepared opacifiers and prepared colours, vitrifiable enamels and glazes, engobes, liquid lustres and similar preparations of a kind used in the ceramic, enamelling or glass industry; glass frit and other glass in the form of powder, granules or flakes |
| 3208 | Paints and varnishes, incl. enamels and lacquers, based on synthetic polymers or chemically modified natural polymers, dispersed or dissolved in a non-aqueous medium; solutions of products of headings 3901 to 3913 in volatile organic solvents, containing > 50 % solvent by weight (excl. solutions of collodion) |
| 3209 | Paints and varnishes, incl. enamels and lacquers, based on synthetic polymers or chemically modified natural polymers, dispersed or dissolved in an aqueous medium |
| 3210 | Other paints and varnishes (including enamels, lacquers and distempers); prepared water pigments of a kind used for finishing leather |
| 321290 | Pigments (including metallic powders and flakes) dispersed in non- aqueous media, in liquid or paste form, of a kind used in the manufacture of paints (including enamels); stamping foils; dyes and other colouring matter put up in forms or packings for retail sale - Other |
| 3214 | Glaziers' putty, grafting putty, resin cements, caulking compounds and other mastics; painters' fillings; non-refractory surfacing preparations for façades, indoor walls, floors, ceilings or the like |

| CN code | Description |
|---------|--|
| 321511 | Printing ink - Black |
| 321519 | Printing ink - Other |
| 3403 | Lubricant preparations, incl. cutting-oil preparations, bolt or nut release preparations, anti-rust or anti-corrosion preparations and mould-release preparations based on lubricants; textile lubricant preparations and preparations of a kind used for the oil or grease treatment of textile materials, leather, furskins or other materials (excl. preparations containing, as basic constituents, ≥ 70 % petroleum oil or bituminous mineral oil by weight) |
| 350510 | Dextrins and other modified starches |
| 350699 | Prepared glues and other prepared adhesives, not elsewhere specified or included; products suitable for use as glues or adhesives, put up for retail sale as glues or adhesives, not exceeding a net weight of 1 kg- Other |
| 370120 | Instant print film |
| 370191 | For colour photography (polychrome) |
| 3702 | Photographic film in rolls, sensitised, unexposed, of any material other than paper, paperboard or textiles; instant print film in rolls, sensitised, unexposed |
| 3703 | Photographic paper, paperboard and textiles, sensitised, unexposed |
| 3705 | photographic plates and film, exposed and developed (excl. products made of paper, paperboard or textiles, cinematographic film and ready-to-use printing plates) |
| 3706 | cinematographic film, exposed and developed, whether or not incorporating soundtrack or consisting only of soundtrack |
| 380120 | colloidal or semi-colloidal graphite |
| 380620 | salts of rosin, of resin acids or of derivatives of rosin or resin acids (excl. salts of rosin adducts) |

| CN code | Description |
|----------|--|
| 3807 | wood tar; wood tar oils; wood creosote; wood naphtha; vegetable pitch; brewer's pitch and similar preparations based on rosin, resin acids or vegetable pitch (excl. burgundy pitch, yellow pitch, stearin pitch, fatty acid pitch, fatty tar and glycerin pitch) |
| 3809 | Finishing agents, dye carriers to accelerate the dyeing or fixing of dyestuffs and other products and preparations such as dressings and mordants of a kind used in the textile, paper, leather or like industries, n.e.s. |
| 3810 | Pickling preparations for metal surfaces; fluxes and other auxiliary preparations for soldering, brazing or welding; soldering, brazing or welding pastes and powders consisting of metal and other materials; preparations of a kind used as coatings or cores for welding electrodes or rods |
| 3811 | anti-knock preparations, oxidation inhibitors, gum inhibitors, viscosity improvers, anti-corrosive preparations and other prepared additives, for mineral oils, incl. gasoline, or for other liquids used for the same purposes as mineral oils |
| 381220 | compound plasticisers for rubber or plastics, n.e.s. |
| 3813 | preparations and charges for fire-extinguishers; charged fire-extinguishing grenades (excl. full or empty fire-extinguishing devices, whether or not portable, unmixed chemically undefined products with fire-extinguishing properties in other forms) |
| 3814 | organic composite solvents and thinners, n.e.s.; prepared paint or varnish removers (excl. nail varnish remover) |
| 3815 | Reaction initiators, reaction accelerators and catalytic preparations, n.e.s. (excl. rubber accelerators) |
| 38160010 | Dolomite ramming mix |

| CN code | Description |
|---------|--|
| 3817 | mixed alkylbenzenes and mixed alkylnaphthalenes produced by the alkylation of benzene and naphthalene (excl. mixed isomers of cyclic hydrocarbons) |
| 3819 | hydraulic brake fluids and other prepared liquids for hydraulic transmission not containing petroleum oil or bituminous mineral oil, or containing < 70 % petroleum oil or bituminous mineral oil by weight |
| 3820 | anti-freezing preparations and prepared de-icing fluids (excl. prepared additives for mineral oils or other liquids used for the same purposes as mineral oils) |
| 382313 | tall oil fatty acids, industrial |
| 382790 | Mixtures containing halogenated derivatives of methane, ethane or propane (excl. those of subheadings 3824.71.00 to 3824.78.00) |
| 382481 | mixtures and preparations containing oxirane "ethylene oxide" |
| 382484 | mixtures and preparations containing aldrin (iso), camphechlor (iso) "toxaphene", chlordane (iso), chlordecone (iso), ddt (iso) "clofenotane (inn), 1,1,1-trichloro-2,2-bis"p-chlorophenyl"ethane", dieldrin "iso, inn", endosulfan (iso), endrin (iso), heptachlor (iso) or mirex (iso) |
| 382499 | chemical products and preparations of the chemical or allied industries, incl. those consisting of mixtures of natural products, n.e.s. |
| 382590 | residual products of the chemical or allied industries, n.e.s. (excl. waste) |
| 3826 | biodiesel and mixtures thereof, not containing or containing < 70 % by weight of petroleum oils or oils obtained from bituminous minerals |
| 390140 | ethylene-alpha-olefin copolymers, having a specific gravity of < 0,94 , in primary forms |
| 390220 | polyisobutylene, in primary forms |
| 390230 | propylene copolymers, in primary forms |

| CN code | Description |
|---------|--|
| 390290 | polymers of propylene or of other olefins, in primary forms (excl. polypropylene, polyisobutylene and propylene copolymers) |
| 390319 | polystyrene, in primary forms (excl. expandable) |
| 390390 | polymers of styrene, in primary forms (excl. polystyrene, styrene-acrylonitrile copolymers "san" and acrylonitrile-butadiene-styrene "abs") |
| 390410 | poly"vinyl chloride", in primary forms, not mixed with any other substances |
| 390450 | vinylidene chloride polymers, in primary forms |
| 3905 | Polymers of vinyl acetate or of other vinyl esters, in primary forms; other vinyl polymers, in primary forms |
| 3906 | Acrylic polymers, in primary forms |
| 390721 | polyethers, in primary forms (excl. polyacetals and goods of 3002 10) |
| 390740 | polycarbonates, in primary forms |
| 390770 | poly"lactic acid", in primary forms |
| 390791 | unsaturated polyallyl esters and other polyesters, in primary forms (excl. polycarbonates, alkyd resins, poly"ethylene terephthalate" and poly"lactic acid") |
| 3908 | Polyamides, in primary forms |
| 390920 | melamine resins, in primary forms |
| 390939 | amino-resins, in primary forms (excl. urea, thiourea and melamine resins and mdi) |
| 390940 | phenolic resins, in primary forms |
| 390950 | polyurethanes, in primary forms |
| 391211 | non-plasticised cellulose acetates, in primary forms |

| CN code | Description |
|---------|---|
| 391290 | cellulose and chemical derivatives thereof, n.e.s., in primary forms (excl. cellulose acetates, cellulose nitrates and cellulose ethers) |
| 391520 | waste, parings and scrap, of polymers of styrene |
| 391710 | artificial guts "sausage casings" of hardened protein or cellulose materials |
| 391723 | rigid tubes, pipes and hoses, of polymers of vinyl chloride |
| 391731 | flexible tubes, pipes and hoses, of plastics, burst pressure $\geq 27,6$ mpa |
| 391732 | flexible tubes, pipes and hoses of plastics, not reinforced or otherwise combined with other materials, without fittings |
| 391733 | flexible tubes, pipes and hoses of plastics, not reinforced or otherwise combined with other materials, with fittings, seals or connectors |
| 392010 | plates, sheets, film, foil and strip, of non-cellular polymers of ethylene, not reinforced, laminated, supported or similarly combined with other materials, without backing, unworked or merely surface-worked or merely cut into squares or rectangles (excl. self-adhesive products, and floor, wall and ceiling coverings of heading 3918) |
| 392061 | plates, sheets, film, foil and strip, of non-cellular polycarbonates, not reinforced, laminated, supported or similarly combined with other materials, without backing, unworked or merely surface-worked or merely cut into squares or rectangles (excl. those of poly"methyl methacrylate", self-adhesive products, and floor, wall and ceiling coverings of heading 3918) |
| 392069 | plates, sheets, film, foil and strip, of non-cellular polyesters, not reinforced, laminated, supported or similarly combined with other materials, not worked or only surface-worked, or only cut to rectangular, incl. square, shapes (excl. polycarbonates, polyethylene terephthalate and other unsaturated polyesters, self-adhesive products, and floor, wall and ceiling coverings in heading 3918) |

| CN code | Description |
|---------|---|
| 392073 | plates, sheets, film, foil and strip, of non-cellular cellulose acetates, not reinforced, laminated, supported or similarly combined with other materials, without backing, unworked or merely surface-worked or merely cut into squares or rectangles (excl. self-adhesive products, and floor, wall and ceiling coverings of heading 3918) |
| 392091 | plates, sheets, film, foil and strip, of non-cellular poly"vinyl butyral", not reinforced, laminated, supported or similarly combined with other materials, without backing, unworked or merely surface-worked or merely cut into squares or rectangles (excl. self-adhesive products, floor, wall and ceiling coverings of heading 3918) |
| 392119 | plates, sheets, film, foil and strip, of cellular plastic, unworked or merely surface-worked or merely cut into squares or rectangles (excl.those of polymers of styrene, vinyl chloride, polyurethanes and regenerated cellulose, self-adhesive products, floor, wall and ceiling coverings of heading 3918 and sterile surgical or dental adhesion barriers of subheading 3006.10.30) |
| 392290 | bidets, lavatory pans, flushing cisterns and similar sanitary ware, of plastics (excl. baths, shower-baths, sinks, washbasins, lavatory seats and covers) |
| 392520 | doors, windows and their frames and thresholds for doors, of plastics |
| 4002 | Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of natural rubber, balata, gutta-percha, guayule, chicle or similar types of natural rubber with synthetic rubber or factice, in primary forms or in plates, sheets or strip |
| 4005 | Compounded rubber, unvulcanised, in primary forms or in plates, sheets or strip |
| 400610 | "camel-back" strips of unvulcanised rubber, for retreading rubber tyres |
| 400821 | plates, sheets and strip, of non-cellular rubber |

| CN code | Description |
|---------|---|
| 400912 | tubes, pipes and hoses, of vulcanised rubber (excl. hard rubber), not reinforced or otherwise combined with other materials, with fittings |
| 400941 | tubes, pipes and hoses, of vulcanised rubber (excl. hard rubber), reinforced or otherwise combined with materials other than metal or textile materials, without fittings |
| 4010 | Conveyor or transmission belts or belting, of vulcanised rubber |
| 401120 | New pneumatic tyres, of rubber, of a kind used for buses and lorries |
| 4012 | Retreaded or used pneumatic tyres of rubber; solid or cushion tyres, tyre treads and tyre flaps, of rubber |
| 401693 | gaskets, washers and other seals, of vulcanised rubber (excl. hard rubber and those of cellular rubber) |
| 4407 | wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness of > 6 mm |
| 440810 | sheets for veneering, incl. those obtained by slicing laminated wood, for coniferous plywood or for other similar laminated coniferous wood and other coniferous wood, sawn lengthwise, sliced or peeled, whether or not planed, sanded, spliced or end-jointed, of a thickness of ≤ 6 mm |
| 441113 | medium density fibreboard "mdf" of wood, of a thickness > 5 mm but ≤ 9 mm |
| 441194 | fibreboard of wood or other ligneous materials, whether or not agglomerated with resins or other organic bonding agents, of a density of ≤ 0,5 g/cm ³ (excl. medium density fibreboard "mdf"; particle board, whether or not bonded with one or more sheets of fibreboard; laminated wood with a layer of plywood; cellular wood panels of which both sides are fibreboard; paperboard; identifiable furniture components) |
| 4412 | Plywood, veneered panel and similar laminated wood |

| CN code | Description |
|---------|---|
| 4416 | casks, barrels, vats, tubs and other coopers' products parts thereof, of wood, incl. staves |
| 441840 | wooden shuttering for concrete constructional work (excl. plywood boarding) |
| 441860 | posts and beams, of wood |
| 441879 | flooring panels, assembled, of wood other than bamboo (excl. multilayer panels and panels for mosaic floors) |
| 4503 | Articles of natural cork |
| 4504 | Agglomerated cork (with or without a binding substance) and articles of agglomerated cork |
| 4701 | Mechanical wood pulp, not chemically treated |
| 4703 | Chemical wood pulp, soda or sulphate (excl. dissolving grades) |
| 4704 | Chemical wood pulp, sulphite (excl. dissolving grades) |
| 4705 | wood pulp obtained by a combination of mechanical and chemical pulping processes |
| 4706 | Pulps of fibres derived from recovered (waste and scrap) paper or paperboard or of other fibrous cellulosic material |
| 4707 | Recovered (waste and scrap) paper or paperboard |
| 480220 | paper and paperboard of a kind used as a base for photosensitive, heat-sensitive or electrosensitive paper and paperboard, uncoated, in rolls or in square or rectangular sheets, of any size |
| 480240 | wallpaper base, uncoated |

| CN code | Description |
|---------|---|
| 480258 | uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and non-perforated punchcards and punch-tape paper, in rolls or in square or rectangular sheets, of any size, not containing fibres obtained by a mechanical or chemi-mechanical process or of which $\leq 10\%$ by weight of the total fibre content consists of such fibres, weighing $> 150 \text{ g/m}^2$, n.e.s. |
| 480261 | uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and non-perforated punchcards and punch-tape paper, in rolls of any size, of which $> 10\%$ by weight of the total fibre content consists of fibres obtained by a mechanical or chemi-mechanical process, n.e.s. |
| 4804 | Uncoated kraft paper and paperboard, in rolls of a width $> 36 \text{ cm}$ or in square or rectangular sheets with one side $> 36 \text{ cm}$ and the other side $> 15 \text{ cm}$ in the unfolded state (excl. goods of heading 4802 or 4803) |
| 4805 | Other paper and paperboard, uncoated, in rolls of a width $> 36 \text{ cm}$ or in square or rectangular sheets with one side $> 36 \text{ cm}$ and the other side $> 15 \text{ cm}$ in the unfolded state, not worked other than as specified in note 3 to this chapter, n.e.s. |
| 4806 | Vegetable parchment, greaseproof papers, tracing papers and glassine and other glazed transparent or translucent papers, in rolls of a width $> 36 \text{ cm}$ or in square or rectangular sheets with one side $> 36 \text{ cm}$ and the other side $> 15 \text{ cm}$ in the unfolded state |
| 4807 | Composite paper and paperboard "made by sticking flat layers of paper or paperboard together with an adhesive", not surface-coated or impregnated, whether or not internally reinforced, in rolls of a width $> 36 \text{ cm}$ or in square or rectangular sheets with one side $> 36 \text{ cm}$ and the other side $> 15 \text{ cm}$ in the unfolded state |

| CN code | Description |
|---------|--|
| 4808 | Corrugated paper and paperboard "with or without glued flat surface sheets", creped, crinkled, embossed or perforated, in rolls of a width > 36 cm or in square or rectangular sheets with one side > 36 cm and the other side > 15 cm in the unfolded state (excl. goods of heading 4803) |
| 4809 | Carbon paper, self-copy paper and other copying or transfer papers, incl. coated or impregnated paper for duplicator stencils or offset plates, whether or not printed, in rolls of a width > 36 cm or in square or rectangular sheets with one side > 36 cm and the other side > 15 cm in the unfolded state |
| 4810 | Paper and paperboard, coated on one or both sides with kaolin "china clay" or other inorganic substances, with or without a binder, and with no other coating, whether or not surface-coloured, surface-decorated or printed, in rolls or in square or rectangular sheets, of any size (excl. all other coated papers and paperboards) |
| 481110 | tarred, bituminised or asphalted paper and paperboard, in rolls or in square or rectangular sheets, of any size |
| 481151 | paper and paperboard, surface-coloured, surface-decorated or printed, coated, impregnated or covered with artificial resins or plastics, in rolls or in square or rectangular sheets, of any size, bleached and weighing > 150 g/m ² (excl. adhesives) |
| 481159 | paper and paperboard, surface-coloured, surface-decorated or printed, coated, impregnated or covered with artificial resins or plastics, in rolls or in square or rectangular sheets, of any size (excl. bleached and weighing > 150 g/m ² , and adhesives) |
| 481160 | paper and paperboard, coated, impregnated or covered with wax, paraffin wax, stearin, oil or glycerol, in rolls or in square or rectangular sheets, of any size (excl. goods of heading 4803, 4809 and 4818) |

| CN code | Description |
|---------|--|
| 481190 | paper, paperboard, cellulose wadding and webs of soft cellulose, coated, impregnated, covered, surface-coloured, surface-decorated or printed, in rolls or in square or rectangular sheets, of any size (excl. goods of heading 4803, 4809, 4810 and 4818, and of subheading 4811.10 to 4811.60) |
| 481490 | wallpaper and similar wallcoverings of paper, and window transparencies of paper (excl. wallcoverings of paper, consisting of paper coated or covered, on the face side, with a grained, embossed, coloured or design-printed or otherwise decorated layer of plastics) |
| 481920 | folding cartons, boxes and cases, of non-corrugated paper or paperboard |
| 4822 | Bobbins, spools, cops and similar supports of paper pulp, paper or paperboard, whether or not perforated or hardened |
| 4823 | Paper, paperboard, cellulose wadding and webs of cellulose fibres, in strips or rolls of a width \leq 36 cm, in rectangular or square sheets of which no side $>$ 36 cm in the unfolded state, or cut to shape other than rectangular or square, and articles of paper pulp, paper, paperboard, cellulose wadding or webs or cellulose fibres, n.e.s |
| 4906 | Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; handwritten texts; photographic reproductions on sensitised paper and carbon copies of the foregoing |
| 5105 | Wool and fine or coarse animal hair, carded or combed, incl. combed wool in fragments |
| 5106 | Carded wool yarn (excl. that put up for retail sale) |
| 5107 | Yarn of combed wool (excl. that put up for retail sale) |

| CN code | Description |
|---------|---|
| 5112 | Woven fabrics of combed wool or of combed fine animal hair (excl. fabrics for technical purposes of heading 5911) |
| 5205 | Cotton yarn other than sewing thread, containing ≥ 85 % cotton by weight (excl. that put up for retail sale) |
| 520642 | multiple "folded" or cabled cotton yarn containing predominantly, but < 85 % cotton by weight, of combed fibres and with a linear density of 232,56 decitex to $< 714,29$ decitex " $> \text{mn } 14$ to $\text{mn } 43$ " per single yarn (excl. sewing thread and yarn put up for retail sale) |
| 520911 | plain woven fabrics of cotton, containing ≥ 85 % cotton by weight and weighing > 200 g/m ² , unbleached |
| 5211 | Woven fabrics of cotton, containing predominantly, but < 85 % cotton by weight, mixed principally or solely with man-made fibres and weighing > 200 g/m ² |
| 5308 | Yarn of other vegetable textile fibres; paper yarn |
| 540263 | multiple "folded" or cabled filament yarn of polypropylene, incl. monofilament of < 67 decitex (excl. sewing thread, yarn put up for retail sale and textured yarn) |
| 5403 | Artificial filament yarn, incl. artificial monofilament of < 67 decitex (excl. sewing thread and yarn put up for retail sale) |
| 5404 | Synthetic monofilament of ≥ 67 decitex and with a cross sectional dimension of ≤ 1 mm; strip and the like, e.g. artificial straw, of synthetic textile material, with an apparent width of ≤ 5 mm |
| 540730 | woven fabrics of synthetic filament yarn, incl. monofilament of ≥ 67 decitex and with a cross sectional dimension of ≤ 1 mm, consisting of layers of parallel textile yarns superimposed on each other at acute or right angles, the layers being bonded at the intersections of the yarns by an adhesive or by thermal bonding |

| CN code | Description |
|---------|--|
| 5501 | Synthetic filament tow as specified in note 1 to chapter 55 |
| 5502 | Artificial filament tow as specified in note 1 to chapter 55 |
| 5503 | Synthetic staple fibres, not carded, combed or otherwise processed for spinning |
| 550490 | artificial staple fibres, not carded, combed or otherwise processed for spinning (excl. those of viscose rayon) |
| 5506 | Synthetic staple fibres, carded, combed or otherwise processed for spinning |
| 5507 | Artificial staple fibres, carded, combed or otherwise processed for spinning |
| 551221 | woven fabrics containing \geq 85 % acrylic or modacrylic staple fibres by weight, unbleached or bleached |
| 551299 | woven fabrics containing \geq 85 % synthetic staple fibres by weight, dyed, made of yarn of different colours or printed (excl. those of acrylic, modacrylic or polyester staple fibres) |
| 5516 | woven fabrics of artificial staple fibres |
| 560129 | wadding of textile materials and articles thereof (excl. of cotton or man-made fibres; sanitary towels and tampons, napkins and napkin liners for babies and similar sanitary articles, wadding and articles thereof, impregnated or covered with medicated substances or put up for retail for medical, surgical, dental or veterinary purposes, or impregnated, coated or covered with perfumes, make-up, soaps, cleansing agents, etc.) |
| 560130 | textile flock and dust and mill neps |
| 5604 | Textile-covered rubber thread and cord; textile yarn, strip and the like of heading 5404 and 5405, impregnated, coated, covered or sheathed with rubber or plastics (excl. imitation catgut, thread and cord with fish-hook attachments or otherwise put up as fishing line) |

| CN code | Description |
|---------|--|
| 5605 | Metallised yarn, whether or not gimped, being textile yarn, or strip or the like of heading 5404 or 5405, of textile fibres, combined with metal in the form of thread, strip or powder or covered with metal (excl. yarns manufactured from a mixture of textile fibres and metal fibres, with anti-static properties; yarns reinforced with metal wire; articles with the character of trimmings) |
| 560741 | binder or baler twine, of polyethylene or polypropylene |
| 580127 | warp pile fabrics, of cotton (excl. terry towelling and similar woven terry fabrics, tufted textile fabrics and narrow woven fabrics of heading 5806) |
| 5803 | Gauze (excl. narrow woven fabrics of heading 5806) |
| 580640 | narrow fabrics consisting of warp without weft assembled by means of an adhesive "bolducs", with a width of ≤ 30 cm |
| 5901 | Textile fabrics coated with gum or amylaceous substances, of a kind used for the outer covers of books, the manufacture of boxes and articles of cardboard or the like; tracing cloth; prepared painting canvas; buckram and similar stiffened textile fabrics of a kind used for hat foundations (excl. plastic-coated textile fabrics) |
| 5905 | Textile wallcoverings |
| 5908 | Textile wicks, woven, plaited or knitted, for lamps, stoves, lighters, candles or the like; incandescent gas mantles and tubular knitted gas-mantle fabric for incandescent gas mantles, whether or not impregnated (excl. wax-covered wicks of the taper variety, fuses and detonating fuses, wicks in the form of textile yarn and glass-fibre wicks) |
| 5910 | Transmission or conveyor belts or belting, of textile material, whether or not impregnated, coated, covered or laminated with plastics, or reinforced with metal or other material (excl. those of a thickness of < 3 mm and of indeterminate length or cut to length only, and those impregnated, coated, covered or laminated with rubber or made of yarn or cord impregnated or coated with rubber) |

| CN code | Description |
|---------|---|
| 591110 | textile fabrics, felt and felt-lined woven fabrics, coated, covered or laminated with rubber, leather or other material, of a kind used for card clothing, and similar fabrics of a kind used for other technical purposes, incl. narrow fabrics made of velvet impregnated with rubber, for covering weaving spindles "weaving beams" |
| 591131 | textile fabrics and felts, endless or fitted with linking devices, of a kind used in papermaking or similar machines, e.g. for paper pulp or asbestos-cement, weighing < 650 g/m ² |
| 591132 | textile fabrics and felts, endless or fitted with linking devices, of a kind used in papermaking or similar machines, e.g. for paper pulp or asbestos-cement, weighing ≥ 650 g/m ² |
| 591140 | straining cloth of a kind used in oil-presses or for similar technical purposes, incl. that of human hair |
| 600199 | pile fabrics, knitted or crocheted (excl. cotton or man-made fibres and "long pile" fabrics) |
| 6003 | Knitted or crocheted fabrics, of a width ≤ 30 cm (excl. those containing by weight ≥ 5 % of elastomeric yarn or rubber thread, and pile fabrics, incl. "long pile", looped pile fabrics, labels, badges and similar articles, and knitted or crocheted fabrics, impregnated, coated, covered or laminated) |
| 600536 | unbleached or bleached warp knit fabrics of synthetic fibres "incl. those made on galloon knitting machines", of a width of > 30 cm (excl. those containing by weight ≥ 5 % of elastomeric yarn or rubber thread, and pile fabrics, incl. "long pile", looped pile fabrics, labels, badges and similar articles, and knitted or crocheted fabrics, impregnated, coated, covered or laminated) |
| 600544 | printed warp knit fabrics of artificial fibres "incl. those made on galloon knitting machines", of a width of > 30 cm (excl. those containing by weight ≥ 5 % of elastomeric yarn or rubber thread, and pile fabrics, incl. "long pile", looped pile fabrics, labels, badges and similar articles, and knitted or crocheted fabrics, impregnated, coated, covered or laminated) |

| CN code | Description |
|---------|---|
| 600610 | fabrics, knitted or crocheted, of a width of > 30 cm, of wool or fine animal hair (excl. warp knit fabrics "incl. those made on galloon knitting machines", those containing by weight \geq 5 % of elastomeric yarn or rubber thread, and pile fabrics, incl. "long pile", looped pile fabrics, labels, badges and similar articles, and knitted or crocheted fabrics, impregnated, coated, covered or laminated) |
| 6309 | Worn clothing and clothing accessories, blankets and travelling rugs, household linen and articles for interior furnishing, of all types of textile materials, incl. all types of footwear and headgear, showing signs of appreciable wear and presented in bulk or in bales, sacks or similar packings (excl. carpets, other floor coverings and tapestries) |
| 680292 | calcareous stone, in any form (excl. marble, travertine and alabaster, tiles, cubes and similar articles of subheading 6802.10, imitation jewellery, clocks, lamps and lighting fittings and parts thereof, original sculptures and statuary, setts, curbstones and flagstones) |
| 680423 | millstones, grindstones, grinding wheels and the like, without frameworks, for sharpening, polishing, trueing or cutting, of natural stone (excl. of agglomerated natural abrasives or ceramics, perfumed pumice stones, hand sharpening or polishing stones, and grinding wheels etc. specifically for dental drill engines) |
| 6806 | Slag-wool, rock-wool and similar mineral wools; exfoliated vermiculite, expanded clays, foamed slag and similar expanded mineral materials; mixtures and articles of heat-insulating, sound-insulating or soundabsorbing mineral materials, other than those of heading 6811 or 6812 or of Chapter 69 |
| 6807 | Articles of asphalt or of similar materials, e.g. petroleum bitumen or coal tar pitch |
| 680919 | boards, sheets, panels, tiles and similar articles, of plaster or compositions based on plaster (excl. ornamented, faced or reinforced with paper or paperboard only, and with plaster agglomerated articles for heat-insulation, sound-insulation or sound absorption) |

| CN code | Description |
|---------|--|
| 681091 | prefabricated structural components for building or civil engineering of cement, concrete or artificial stone, whether or not reinforced |
| 6811 | Articles of asbestos-cement, cellulose fibre-cement or the like |
| 6813 | Friction material and articles thereof, e.g., sheets, rolls, strips, segments, discs, washers, pads, not mounted, for brakes, clutches or the like, with a basis of asbestos, other mineral substances or cellulose, whether or not combined with textile or other materials (excl. mounted friction material) |
| 681490 | worked mica and articles of mica (excl. electrical insulators, insulating fittings, resistors and capacitors, protective goggles of mica and their glasses, mica in the form of christmas tree decorations, and plates, sheets and strips of agglomerated or reconstituted mica, whether or not on supports) |
| 6901 | bricks, blocks, tiles and other ceramic goods of siliceous fossil meals, e.g. kieselguhr, tripolite or diatomite, or of similar siliceous earths |
| 690410 | building bricks (excl. those of siliceous fossil meals or similar siliceous earths, and refractory bricks of heading 6902) |
| 6905 | Roofing tiles, chimney pots, cowls, chimney liners, architectural ornaments and other ceramic constructional goods |
| 690600 | ceramic pipes, conduits, guttering and pipe fittings (excl. of siliceous fossil meals or similar siliceous earths, refractory ceramic goods, chimney liners, pipes specifically manufactured for laboratories, insulating tubing and fittings and other piping for electrotechnical purposes) |
| 690722 | ceramic flags and paving, hearth or wall tiles, of a water absorption coefficient by weight > 0,5 % but ≤ 10 % (excl. mosaic cubes and finishing ceramics) |
| 690740 | finishing ceramics |
| 690990 | ceramic troughs, tubs and similar receptacles of a kind used in agriculture; ceramic pots, jars and similar articles of a kind used for the conveyance or packing of goods (excl. general-purpose storage vessels for laboratories, containers for shops and household articles) |

| CN code | Description |
|---------|--|
| 7002 | Glass in balls (other than microspheres of heading 7018), rods or tubes, unworked |
| 7003 | Cast glass and rolled glass, in sheets or profiles, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked |
| 7004 | Sheets of glass, drawn or blown, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked |
| 7005 | Float glass and surface ground or polished glass, in sheets, whether or not having an absorbent, reflecting or non-reflecting layer, but not otherwise worked |
| 700711 | toughened "tempered" safety glass, of size and shape suitable for incorporation in motor vehicles, aircraft, spacecraft, vessels and other vehicles |
| 700729 | laminated safety glass (excl. glass of size and shape suitable for incorporation in motor vehicles, aircraft, spacecraft, vessels or other vehicles, multiple-walled insulating units) |
| 701110 | glass envelopes, incl. bulbs and tubes, open, and glass parts thereof, without fittings, for electric lighting |
| 720292 | ferro-vanadium |
| 7207 | Semi-finished products of iron or non-alloy steel |
| 7208 | Flat-rolled products of iron or non-alloy steel, of a width \geq 600 mm, hot-rolled, not clad, plated or coated |
| 7209 | Flat-rolled products of iron or non-alloy steel, of a width of \geq 600 mm, cold-rolled "cold-reduced", not clad, plated or coated |
| 7210 | Flat-rolled products of iron or non-alloy steel, of a width \geq 600 mm, hot-rolled or cold-rolled "cold-reduced", clad, plated or coated |

| CN code | Description |
|---------|---|
| 7211 | Flat-rolled products of iron or non-alloy steel, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced", not clad, plated or coated |
| 7212 | Flat-rolled products of iron or non-alloy steel, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced", clad, plated or coated |
| 7213 | Bars and rods of iron or non-alloy steel, hot-rolled, in irregularly wound coils |
| 721550 | bars and rods, of iron or non-alloy steel, not further worked than cold-formed or cold-finished (excl. of free-cutting steel) |
| 7216 | Angles, shapes and sections of iron or non-alloy steel |
| 7218 | stainless steel in ingots or other primary forms (excl. remelting scrap ingots and products obtained by continuous casting); semi-finished products of stainless steel |
| 7219 | Flat-rolled products of stainless steel, of a width of \geq 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7220 | Flat-rolled products of stainless steel, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 722230 | other bars and rods of stainless steel, cold-formed or cold-finished and further worked, or not further worked than forged, or forged, or hot-formed by other means and further worked |
| 7224 | Steel, alloy, other than stainless, in ingots or other primary forms, semi-finished products of alloy steel other than stainless (excl. waste and scrap in ingot form, and products obtained by continuous casting) |
| 7225 | Flat-rolled products of alloy steel other than stainless, of a width of \geq 600 mm, hot-rolled or cold-rolled "cold-reduced" |

| CN code | Description |
|---------|---|
| 7226 | Flat-rolled products of alloy steel other than stainless, of a width of < 600 mm, hot-rolled or cold-rolled "cold-reduced" |
| 7228 | Other bars and rods of alloy steel other than stainless, angles, shapes and sections of alloy steel other than stainless, n.e.s.; hollow drill bars and rods, of alloy or non-alloy steel |
| 722990 | wire of alloy steel other than stainless, in coils (excl. bars and rods and wire of silico-manganese steel) |
| 730120 | angles, shapes and sections, of iron or steel, welded |
| 730424 | casing and tubing, seamless, of a kind used for drilling for oil or gas, of stainless steel |
| 730539 | tubes and pipes having circular cross-sections and an external diameter of > 406,4 mm, of iron or steel, welded (excl. products longitudinally welded or of a kind used for oil or gas pipelines or of a kind used in drilling for oil or gas) |
| 730650 | Tubes, pipes and hollow profiles, welded, of circular cross-section, of alloy steel other than stainless (excl. tubes and pipes having internal and external circular cross-sections and an external diameter of > 406,4 mm, and line pipe of a kind used for oil or gas pipelines or casing and tubing of a kind used in drilling for oil or gas) |
| 730722 | Threaded elbows, bends and sleeves |
| 7308 | Structures and parts of structures "e.g., bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns", of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel (excl. prefabricated buildings of heading 9406) |

| CN code | Description |
|---------|---|
| 7309 | Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment |
| 7310 | Tanks, casks, drums, cans, boxes and similar containers, of iron or steel, for any material "other than compressed or liquefied gas", of a capacity of ≤ 300 l, not fitted with mechanical or thermal equipment, whether or not lined or heat-insulated, n.e.s |
| 7311 | Containers of iron or steel, for compressed or liquefied gas (excl. containers specifically constructed or equipped for one or more types of transport) |
| 731412 | Endless bands of stainless steel wire, for machinery |
| 731824 | Cotters and cotter pins, of iron or steel |
| 732020 | Helical springs, of iron or steel (excl. flat spiral springs, clock and watch springs, springs for sticks and handles of umbrellas or parasols, and shock absorbers of section 17) |
| 732290 | Air heaters and hot-air distributors, incl. distributors which can also distribute fresh or conditioned air, non-electrically heated, incorporating a motor-driven fan or blower, and parts thereof, of iron or steel |
| 732429 | baths of steel sheet |
| 7407 | Copper bars, rods and profiles |
| 7408 | Copper wire |
| 7409 | Copper plates, sheets and strip, of a thickness exceeding 0,15 mm |
| 741129 | tubes and pipes of copper alloys (excl. copper-zinc base alloys "brass", copper-nickel base alloys "cupro-nickel" and copper-nickel-zinc base alloys "nickel silver") |
| 741521 | washers, "incl. spring washers and spring lock washers", of copper |

| CN code | Description |
|---------|---|
| 7505 | Nickel bars, rods, profiles and wire |
| 7506 | Nickel plates, sheets, strip and foil |
| 7507 | Tubes, pipes and tube or pipe fittings "e.g., couplings, elbows, sleeves", of nickel |
| 7508 | Other articles of nickel |
| 7605 | Aluminium wire |
| 760692 | Plates, sheets and strip, of aluminium alloys, of a thickness of > 0,2 mm (other than square or rectangular) |
| 760720 | Aluminium foil, backed, of a thickness (excl. any backing) of ≤ 0,2 mm (excl. stamping foils of heading 3212, and foil made up as christmas tree decorating material) |
| 7610 | Structures and parts of structures "e.g., bridges and bridge-sections, towers, lattice masts, pillars and columns, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades", of aluminium (excl. prefabricated buildings of heading 9406); plates, rods, profiles, tubes and the like, prepared for use in structures, of aluminium |
| 7611 | Reservoirs, tanks, vats and similar containers, of aluminium, for any material (other than compressed or liquefied gas), of a capacity of > 300 l, not fitted with mechanical or thermal equipment, whether or not lined or heat-insulated (excl. containers specifically constructed or equipped for one or more types of transport) |
| 7612 | Casks, drums, cans, boxes and similar containers, incl. rigid or collapsible tubular containers, of aluminium, for any material (other than compressed or liquefied gas), of a capacity of ≤ 300 l, not fitted with mechanical or thermal equipment, whether or not lined or heat-insulated, n.e.s. |
| 7613 | Aluminium containers for compressed or liquefied gas |
| 761610 | Nails, tacks, staples (other than those of heading 8305), screws, bolts, nuts, screw hooks, rivets, cotters, cotter pins, washers and similar articles |

| CN code | Description |
|---------|--|
| 7804 | Lead plates, sheets, strip and foil; lead powders and flakes |
| 7905 | zinc plates, sheets, strip and foil |
| 8001 | Unwrought tin |
| 8003 | Tin bars, rods, profiles and wire |
| 8007 | Articles of tin |
| 810110 | Tungsten powder |
| 8102 | Molybdenum and articles thereof, including waste and scrap |
| 810590 | Articles of cobalt |
| 8109 | Zirconium and articles thereof, including waste and scrap |
| 820220 | Bandsaw blades of base metal |
| 820760 | Tools for boring or broaching |
| 820810 | Knives and cutting blades, for machines or for mechanical appliances - for metalworking |
| 820820 | Knives and cutting blades, for machines or for mechanical appliances - for wood-working |
| 820830 | Knives and cutting blades, for machines or for mechanical appliances - used by the food industry |
| 820890 | Knives and cutting blades, for machines or for mechanical appliances - other |
| 830120 | Locks used for motor vehicles, of base metal |
| 830170 | Keys presented separately |
| 830230 | Other mountings, fittings and similar articles suitable for motor vehicles |

| CN code | Description |
|---------|--|
| 8307 | Flexible tubing of base metal, with or without fittings |
| 8309 | Stoppers, caps and lids, incl. crown corks, screw caps and pouring stoppers, capsules for bottles, threaded bungs, bung covers, seals and other packing accessories, of base metal |
| 8402 | Steam or other vapour generating boilers (excl. central heating hot water boilers capable also of producing low pressure steam); superheated water boilers; parts thereof |
| 8404 | Auxiliary plant for use with boilers of heading 8402 or 8403, e.g. economizers, superheaters, soot removers and gas recoverers; condensers for steam or other vapour power units; parts thereof |
| 8405 | Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers; parts thereof (excl. coke ovens, electrolytic process gas generators and carbide lamps) |
| 8406 | Steam turbines and other vapour turbines; parts thereof |
| 840721 | Spark-ignition outboard motors for marine propulsion |
| 840729 | Spark-ignition reciprocating or rotary engines, for marine propulsion (excl. outboard motors) |
| 8408 | Compression-ignition internal combustion piston engine "diesel or semi-diesel engine" |
| 840999 | Parts suitable for use solely or principally with compression-ignition internal combustion piston engine "diesel or semi-diesel engine", n.e.s. |
| 8410 | Hydraulic turbines, water wheels, and regulators therefor (excl. hydraulic power engines and motors of heading 8412) |
| 841210 | Reaction engines other than turbojets |
| 841221 | Engines and motors - linear acting (cylinders) |

| CN code | Description |
|---------|--|
| 841229 | Hydraulic power engines and motors - Other |
| 841239 | Pneumatic power engines and motors - Other |
| 841311 | pumps fitted or designed to be fitted with a measuring device, for dispensing fuel or lubricants, of the type used in filling stations or in garages |
| 841319 | pumps for liquids, fitted or designed to be fitted with a measuring device (excl. pumps for dispensing fuel or lubricants, of the type used in filling stations or in garages) |
| 841330 | fuel, lubricating or cooling medium pumps for internal combustion piston engine |
| 841350 | reciprocating positive displacement pumps for liquids, power-driven (excl. those of subheading 8413.11 and 8413.19, fuel, lubricating or cooling medium pumps for internal combustion piston engine and concrete pumps) |
| 841360 | rotary positive displacement pumps for liquids, power-driven (excl. those of subheading 8413.11 and 8413.19 and fuel, lubricating or cooling medium pumps for internal combustion piston engine) |
| 841381 | pumps for liquids, power-driven (excl. those of subheading 8413.11 and 8413.19, fuel, lubricating or cooling medium pumps for internal combustion piston engine, concrete pumps, general reciprocating or rotary positive displacement pumps and centrifugal pumps of all kinds) |
| 841410 | vacuum pumps |
| 841490 | Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters - Parts |
| 841583 | Other air-conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated - not incorporating a refrigerating unit |

| CN code | Description |
|---------|--|
| 8416 | Furnace burners for liquid fuel, for pulverised solid fuel or for gas; mechanical stokers, incl. their mechanical grates, mechanical ash dischargers and similar appliances; parts thereof |
| 841720 | Bakery ovens, incl. biscuit ovens, non-electric |
| 841919 | instantaneous or storage water heaters, non-electric (excl. instantaneous gas water heaters and boilers or water heaters for central heating) |
| 841940 | Distilling or rectifying plant |
| 841950 | Heat-exchange units (excl. those used with boilers) |
| 841989 | Machinery, plant or laboratory equipment, whether or not electrically heated, for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, sterilising, pasteurising, steaming, evaporating, vaporising, condensing or cooling, n.e.s. (excl. machinery used for domestic purposes and furnaces, ovens and other equipment of heading 8514) |
| 841990 | Parts of machinery, plant and laboratory equipment, whether or not electrically heated, for the treatment of materials by a process involving a change of temperature, and of non-electric instantaneous and storage water heaters, n.e.s. |
| 842099 | Parts of calendering or other rolling machines, other than for metals or glass, and cylinders therefor - Other |
| ex 8421 | Centrifuges, incl. centrifugal dryers (excl. those for isotope separation); filtering or purifying machinery and apparatus, for liquids or gases (excl. such machinery and apparatus for water and other beverages, and excl. artificial kidneys; parts thereof |
| 842489 | Mechanical appliances, whether or not hand-operated, for projecting, dispersing or spraying liquids or powders, n.e.s. |

| CN code | Description |
|---------|---|
| 842490 | Parts of fire extinguishers, spray guns and similar appliances, steam or sand blasting machines and similar jet projecting machines and machinery and apparatus for projecting, dispersing or spraying liquids or powders, n.e.s. |
| 842511 | Pulley tackle and hoists other than skip hoists or hoists of a kind used for raising vehicles powered by electric motor |
| 842531 | Winches and capstans powered by electric motor |
| 8426 | Ships' derricks; cranes, including cable cranes; mobile lifting frames, straddle carriers and works trucks fitted with a crane |
| 8427 | Fork-lift trucks; other works trucks fitted with lifting or handling equipment (excl. straddle carriers and works trucks fitted with a crane) |
| 842820 | Pneumatic elevators and conveyors |
| 842831 | Continuous-action elevators and conveyors for goods or materials, for underground use (excl. pneumatic elevators and conveyors) |
| 842832 | Other continuous-action elevators and conveyors, for goods or materials - Other, bucket type |
| 842833 | Other continuous-action elevators and conveyors, for goods or materials - Other, belt type |
| 842839 | Continuous-action elevators and conveyors, for goods or materials (excl. those for underground use and bucket, belt or pneumatic types) |
| 842870 | Industrial robots |
| 842890 | Other machinery |
| 8429 | Self-propelled bulldozers, angledozers, graders, levellers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and roadrollers |

| CN code | Description |
|---------|---|
| 843010 | Piledrivers and pile extractors |
| 843039 | Coal or rock cutters and tunnelling machinery - Other |
| 843050 | Self-propelled earth-moving machinery, n.e.s. |
| 843069 | Earth moving machinery, not self-propelled, n.e.s. |
| 843120 | Parts of fork-lift trucks and other works trucks fitted with lifting or handling equipment, n.e.s. |
| 843139 | Parts of machinery of heading 8428, n.e.s. |
| 843141 | Buckets, shovels, grabs and grips for machinery of heading 8426, 8429 and 8430 |
| 843149 | Parts of machinery of heading 8426, 8429 and 8430, n.e.s. |
| 843910 | Machinery for making pulp of fibrous cellulosic material |
| 843930 | Machinery for finishing paper or paperboard |
| 844090 | Bookbinding machinery, including book-sewing machines - Parts |
| 844130 | Machines for making cartons, boxes, cases, tubes, drums or similar containers, other than by moulding |
| 844240 | Parts of the foregoing machinery, apparatus or equipment |
| 844313 | Other offset printing machinery |
| 844315 | Letterpress printing machinery, other than reel fed, excluding flexographic printing |
| 844316 | Flexographic printing machinery |
| 844317 | Gravure printing machinery |

| CN code | Description |
|---------|---|
| 844319 | Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442 (excl. hectograph or stencil duplicating machines, addressing machines and other office printing machines of heading 8469 to 8472, ink jet printing machines and offset, flexographic, letterpress and gravure printing machinery) |
| 844391 | Parts and accessories of printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442 |
| 8444 | Machines for extruding, drawing, texturing or cutting man-made textile materials |
| 8448 | Auxiliary machinery for use with machines of heading 8444, 8445, 8446 or 8447, e.g. dobbies, jacquards, automatic stop motions, shuttle changing mechanisms; parts and accessories suitable for use solely or principally with the machines of this heading or of heading 8444, 8445, 8446 or 8447, e.g. spindles and spindle flyers, card clothing, combs, extruding nipples, shuttles, healds and heald-frames, hosiery needles |
| 845110 | Dry-cleaning machines |
| 845129 | Drying machines - Other |
| 845130 | Ironing machines and presses (including fusing presses) |
| 845190 | Machinery (other than machines of heading 8450) for washing, cleaning, wringing, drying, ironing, pressing (including fusing presses), bleaching, dyeing, dressing, finishing, coating or impregnating textile yarns, fabrics or made-up textile articles and machines for applying the paste to the base fabric or other support used in the manufacture of floor coverings such as linoleum; machines for reeling, unreeling, folding, cutting or pinking textile fabrics - Parts |
| 8453 | Machinery for preparing, tanning or working hides, skins or leather or for making or repairing footwear or other articles of hides, skins or leather (excl. drying machines, spray guns, machines for the dehairing of pigs, sewing machines and general purpose presses); parts thereof |

| CN code | Description |
|---------|--|
| 8454 | Converters, ladles, ingot moulds and casting machines, of a kind used in metallurgy or in metal foundries; parts thereof |
| 845522 | Cold-rolling mills for metal (excl. tube mills) |
| 845530 | Rolls for metal-rolling mills |
| 845620 | Machine tools for working any material by removal of material, operated by ultrasonic processes (excl. cleaning apparatus operated by ultrasonic processes and material testing machines) |
| 845640 | Machine tools for working any material by removal of material, operated by plasma arc processes |
| 8457 | Machining centres, unit construction machines "single station" and multi-station transfer machines for working metal |
| 8458 | Lathes (including turning centres) for removing metal |
| 8459 | Machine tools, incl. way-type unit head machines, for drilling, boring, milling, threading or tapping (excl. lathes and turning centres of heading 8458, gear cutting machines of heading 8461 and hand-operated machines) |
| 8460 | Machine tools for deburring, sharpening, grinding, honing, lapping, polishing or otherwise finishing metal or cermets by means of grinding stones, abrasives or polishing products (excl. gear cutting, gear grinding or gear finishing machines of heading 8461 and machines for working in the hand) |
| 846120 | Shaping or slotting machines, for working metals, metal carbides or cermets |
| 846130 | Broaching machines, for working metals, metal carbides or cermets |
| 846140 | Gear-cutting, gear-grinding or gear-finishing machines |
| 846190 | Machine tools for planing, shaping, slotting, broaching, gear cutting, gear grinding or gear finishing, sawing, cutting-off and other machine tools working by removing metal or cermets, not elsewhere specified or included - Other |

| CN code | Description |
|---------|--|
| 8462 | Machine tools (including presses) for working metal by forging, hammering or die forging (excluding rolling mills); machine tools (including presses, slitting lines and cut-to-length lines) for working metal by bending, folding, straightening, flattening, shearing, punching, notching or nibbling (excluding draw-benches); presses for working metal or metal carbides, not specified in previous headings |
| 8463 | Machine tools for working metal, sintered metal carbides or cermets, without removing material (excl. forging, bending, folding, straightening and flattening presses, shearing machines, punching or notching machines, presses and machines for working in the hand) |
| 8464 | Machine tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold-working glass (excl. machines for working in the hand) |
| 846520 | Machining centres |
| 846593 | Grinding, sanding or polishing machines |
| 846594 | Bending or assembling machines |
| 846596 | Splitting, slicing or paring machines, for working wood (excl. machining centres) |
| 8466 | Parts and accessories suitable for use solely or principally with the machines of headings 8456 to 8465, incl. work or tool holders, self-opening dieheads, dividing heads and other special attachments for the machines, n.e.s.; tool holders for any type of tool for working in the hand |
| 8468 | Machinery and apparatus for soldering, brazing or welding, whether or not capable of cutting (other than those of heading 8515); gas-operated surface tempering machines and appliances; parts thereof |

| CN code | Description |
|---------|---|
| ex 8471 | Automatic data-processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included, excluding other units of automatic data-processing machines of CN code 8471 80 and excluding storage units for automatic data-processing machines not elsewhere specified corresponding to the CN code 8471 70 98 |
| 847210 | Duplicating machines |
| 847230 | Machines for sorting or folding mail or for inserting mail in envelopes or bands, machines for opening, closing or sealing mail and machines for affixing or cancelling postage stamps |
| 8473 | Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines of headings 8470 to 8472 |
| 847410 | Sorting, screening, separating or washing machines |
| 847431 | Concrete or mortar mixers (excl. those mounted on railway wagons or lorry chassis) |
| 847439 | Mixing or kneading machines - Other |
| 847480 | machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand - (excl. those for the casting or pressing of glass) |
| 8475 | Machines for assembling electric or electronic lamps, tubes or valves or flashbulbs, in glass envelopes; machines for manufacturing or hot working glass or glassware (excl. furnaces and heating apparatus for manufacturing toughened glass); parts thereof |

| CN code | Description |
|---------|--|
| 8477 | Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter, parts thereof |
| 847910 | Machinery for public works, building or the like |
| 847930 | Presses for the manufacture of particle board or fibre building board of wood or other ligneous materials and other machinery for treating wood or cork |
| 847950 | Industrial robots, not elsewhere specified or included |
| 847981 | Machinery for treating metal, incl. electric wire coil-winders, n.e.s. (excl. industrial robots, furnaces, dryers, spray guns and the like, high-pressure cleaning equipment and other jet cleaners, rolling mills or machines, machine tools and rope or cable-making machines) |
| 847982 | Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines, n.e.s. (excl. industrial robots) |
| 847989 | Machines and mechanical appliances, n.e.s. |
| 847990 | Machines and mechanical appliances having individual functions, not specified or included elsewhere in Chapter 84 - Parts |
| 848020 | Mould bases |
| 848030 | Moulding patterns |
| 848060 | Moulds for mineral materials |
| 848110 | Pressure-reducing valves |
| 848120 | Valves for oleohydraulic or pneumatic transmissions |
| 848130 | Check "non-return" valves for pipes, boiler shells, tanks, vats or the like |

| CN code | Description |
|---------|---|
| 848140 | Safety or relief valves |
| 8482 | Ball or roller bearings (excl. steel balls of heading 7326); parts thereof |
| 8483 | Transmission shafts, incl. camshafts and crankshafts, and cranks; bearing housings and plain shaft bearings for machines; gears and gearing; ball or roller screws, gear boxes and other speed changers, incl. torque converters; flywheels and pulleys, incl. pulley blocks, clutches and shaft couplings, incl. universal joints; parts thereof |
| 8484 | Gaskets and similar joints of metal sheeting combined with other material or of two or more layers of metal; sets or assortments of gaskets and similar joints, dissimilar in composition, put up in pouches, envelopes or similar packings; mechanical seals |
| 8486 | Machines and apparatus of a kind used solely or principally for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays; machines and apparatus specified in note 9c to chapter 84; parts and accessories, n.e.s. |
| 8487 | Machinery parts, not containing electrical connectors, insulators, coils, contacts or other electrical features, not specified or included elsewhere in chapter 84 |
| 850120 | universal ac-dc motors of an output > 37,5 W |
| 850131 | DC motors of an output > 37,5 W but <= 750 W and DC generators of an output <= 750 W |
| 850133 | Other DC motors; DC generators, other than photovoltaic generators - of an output exceeding 75 kW but not exceeding 375 kW |
| 850153 | ac motors, multi-phase, of an output > 75 kW |
| 850161 | ac generators "alternators", of an output <= 75 kVA |

| CN code | Description |
|---------|---|
| 850162 | AC generators (alternators), other than photovoltaic generators of an output exceeding 75 kVA but not exceeding 375 kVA |
| 850163 | AC generators (alternators), other than photovoltaic generators of an output exceeding 375 kVA but not exceeding 750 kVA |
| 850164 | AC generators (alternators), other than photovoltaic generators of an output exceeding 750 kVA |
| 8502 | Electric generating sets and rotary converters |
| 8503 | Parts suitable for use solely or principally with the machines of heading 8501 or 8502 |
| 850432 | transformers, having a power handling capacity > 1 kVA but ≤ 16 kVA (excl. liquid dielectric transformers) |
| 850433 | Transformers having a power handling capacity exceeding 16 kVA but not exceeding 500 kVA |
| 850434 | Transformers having a power handling capacity exceeding 500 kVA |
| 8505 | Electromagnets (excl. magnets for medical use); permanent magnets and articles intended to become permanent magnets after magnetization; electromagnetic or permanent magnet chucks, clamps and similar holding devices; electromagnetic couplings, clutches and brakes; electromagnetic lifting heads; parts thereof |
| 850660 | air-zinc cells and batteries (excl. spent) |
| 850690 | Primary cells and primary batteries - Parts |
| 850710 | Lead-acid accumulators of a kind used for starting piston engine "starter batteries" (excl. spent) |
| 850720 | Lead acid accumulators (excl. spent and starter batteries) |
| 850730 | Electric accumulators, including separators therefor, whether or not rectangular (including square) - Nickel-cadmium |

| CN code | Description |
|---------|--|
| 8511 | Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines, e.g. ignition magnetos, magneto-dynamos, ignition coils, sparking plugs, glow plugs and starter motors; generators, e.g. dynamos and alternators, and cut-outs of a kind used in conjunction with such engines; parts thereof |
| 851220 | Electrical lighting or visual signalling equipment for motor vehicles (excl. lamps of heading 8539) |
| 851290 | Parts of electrical lighting or signalling equipment, windscreen wipers, defrosters and demisters of a kind used for cycles and motor vehicles, n.e.s. |
| ex 8514 | Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss), excluding bakery and biscuit ovens of line 85141910; other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss |
| 851511 | Soldering irons and guns, electric |
| 851519 | Brazing or soldering machines (excl. soldering irons and guns) |
| 851521 | Fully or partly automatic machines for resistance welding of metals |
| 851529 | Machines for resistance welding of metals, neither fully nor partly automatic |
| 851680 | Electric heating resistors (excl. those of agglomerated coal and graphite) |
| 851761 | Base stations of apparatus for the transmission or reception of voice, images or other data |
| 852351 | Solid-state, non-volatile data storage devices for recording data from an external source (excl. goods of chapter 37) |

| CN code | Description |
|---------|---|
| 8525 | Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders |
| 8526 | Radar apparatus, radio navigational aid apparatus and radio remote control apparatus |
| 852721 | Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles, combined with sound recording or reproducing apparatus |
| 852849 | Cathode-ray tube monitors "crt" (excl. computer monitors, with tv receiver) |
| 8530 | Electrical signalling, safety or traffic control equipment for railways, tramways, roads, inland waterways, parking facilities, port installations or airfields (excl. mechanical or electromechanical equipment of heading 8608); parts thereof |
| 853210 | Fixed capacitors designed for use in 50/60 hz circuits and having a reactive power-handling capacity of $\geq 0,5$ kvar "power capacitors" |
| 853229 | Fixed electrical capacitors (excl. tantalum, aluminium electrolytic, ceramic, paper, plastic and power capacitors) |
| 853230 | Variable or adjustable "pre-set" electrical capacitors |
| 853290 | Parts of electrical "pre-set" capacitors, fixed, variable or adjustable, n.e.s. |
| 853329 | Other fixed resistors – Other |
| 853390 | Parts of electrical resistors, incl. rheostats and potentiometers, n.e.s. |
| 8534 | Printed circuits |
| 8535 | Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits, e.g., switches, fuses, lightning arresters, voltage limiters, surge suppressors, plugs and other connectors, junction boxes, for a voltage > 1.000 V (excl. control desks, cabinets, panels etc. of heading 8537) |

| CN code | Description |
|---------|---|
| 8538 | Parts suitable for use solely or principally with the apparatus of heading 8535, 8536 or 8537 |
| 853929 | Filament lamps, electric (excl. tungsten halogen lamps, lamps of a power ≤ 200 W and for a voltage > 100 V and ultraviolet or infra-red lamps) |
| 853939 | Discharge lamps (excl. hot-cathode fluorescent lamps, mercury or sodium vapour lamps, metal halide lamps and ultraviolet lamps) |
| 853941 | Arc lamps |
| 853951 | Light-emitting diode (LED) modules |
| 853952 | Light-emitting diode (LED) lamps |
| 8540 | Thermionic, cold cathode or photo-cathode valves and tubes, e.g. vacuum or vapour or gas filled valves and tubes, mercury arc rectifying valves and tubes, cathode ray tubes and television camera tubes; parts thereof |
| 854130 | Thyristors, diacs and triacs (excl. photosensitive semiconductor devices) |
| 854141 | Light-emitting diodes (LED) |
| 854142 | Photovoltaic cells not assembled in modules or made up into panels |
| 854143 | Photovoltaic cells assembled in modules or made up into panels |
| 854310 | Particle accelerators |
| 854320 | Signal generators, electrical |
| 854330 | Machines and apparatus for electroplating, electrolysis or electrophoresis |
| 854411 | Winding wire for electrical purposes, of copper, insulated |
| 854430 | Ignition wiring sets and other wiring sets for vehicles, aircraft or ships |
| 854449 | Electric conductors, for a voltage ≤ 1.000 V, insulated, not fitted with connectors, n.e.s. |

| CN code | Description |
|---------|--|
| 854460 | Electric conductors, for a voltage > 1.000 V, insulated, n.e.s. |
| 854470 | Optical fibre cables made up of individually sheathed fibres, whether or not containing electric conductors or fitted with connectors |
| 854520 | Carbon brushes for electrical purposes |
| 8547 | Insulating fittings for electrical machines, appliances or equipment, being fittings wholly of insulating material apart from any minor components of metal, e.g., threaded sockets, incorporated during moulding solely for purposes of assembly (other than insulators of heading 8546); electrical conduit tubing and joints therefor, of base metal lined with insulating material |
| 8549 | Electrical and electronic waste and scrap |
| 8602 | Rail locomotives (excl. those powered from an external source of electricity or by accumulators); locomotive tenders |
| 8604 | Railway or tramway maintenance or service vehicles, whether or not self-propelled (for example, workshops, cranes, ballast tampers, trackliners, testing coaches and track inspection vehicles) |
| 8606 | Railway or tramway goods vans and wagons (excl. self-propelled and luggage vans and post office coaches) |
| 870121 | Road tractors for semi-trailers - With only compression-ignition internal combustion piston engine (diesel or semi-diesel) |
| 870122 | Road tractors for semi-trailers - With both compression-ignition internal combustion piston engine (diesel or semi-diesel) and electric motor as motors for propulsion |
| 870123 | Road tractors for semi-trailers - With both spark-ignition internal combustion piston engine and electric motor as motors for propulsion |

| CN code | Description |
|-----------|---|
| 870124 | Road tractors for semi-trailers - With only electric motor for propulsion |
| 870130 | Track-laying tractors (excl. pedestrian-controlled) |
| 870310 | Vehicles for the transport of <10 persons on snow; golf cars and similar vehicles |
| ex 870323 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only spark-ignition internal combustion reciprocating piston engine of a cylinder capacity >1.900 cm ³ but <= 3.000 cm ³ (excluding ambulances) |
| ex 870324 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only spark-ignition internal combustion reciprocating piston engine of a cylinder capacity > 3.000 cm ³ (excluding ambulances) |
| ex 870332 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only diesel engine of a cylinder capacity > 1.900 cm ³ but <= 2.500 cm ³ (excluding ambulances) |
| ex 870333 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only diesel engine of a cylinder capacity > 2.500 cm ³ (excluding ambulances) |
| 870340 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both spark-ignition internal combustion reciprocating piston engine and electric motor as motors for propulsion (excl. plug-in hybrids) |
| 870350 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both diesel engine and electric motor as motors for propulsion (excl. plug-in hybrids) |

| CN code | Description |
|---------|--|
| 870360 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both spark-ignition internal combustion reciprocating piston engine and electric motor as motors for propulsion, capable of being charged by plugging to external source of electric power |
| 870370 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with both diesel engine and electric motor as motors for propulsion, capable of being charged by plugging to external source of electric power |
| 870380 | Motor cars and other motor vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with only electric motor for propulsion |
| 870390 | Motor cars and other vehicles principally designed for the transport of <10 persons, incl. station wagons and racing cars, with engines other than internal combustion piston engine or electric motor |
| ex 8704 | Motor vehicles for the transport of goods, incl. chassis with engine and cab, excluding vehicles of CN codes 87042191 and 87042199 with engines of a cylinder capacity not exceeding 1 900 cm ³ |
| 8705 | Special purpose motor vehicles (other than those principally designed for the transport of persons or goods), e.g. breakdown lorries, crane lorries, fire fighting vehicles, concrete-mixer lorries, road sweeper lorries, spraying lorries, mobile workshops and mobile radiological units |
| 870990 | Works trucks, self-propelled, not fitted with lifting or handling equipment, of the type used in factories, warehouses, dock areas or airports for short distance transport of goods; tractors of the type used on railway station platforms; parts of the foregoing vehicles - Parts |
| 871620 | Self-loading or self-unloading trailers and semi-trailers for agricultural purposes |

| CN code | Description |
|---------|--|
| 871639 | Other trailers and semi-trailers for the transport of goods - Other |
| 871690 | Parts of trailers and semi-trailers and other vehicles not mechanically propelled, n.e.s. |
| 8903 | Yachts and other vessels for pleasure or sports; rowing boats and canoes |
| 900110 | Optical fibres, optical fibre bundles and cables (excl. made up of individually sheathed fibres of heading 8544) |
| 900211 | objective lenses for cameras, projectors or photographic enlargers or reducers |
| 900219 | objective lenses (excl. for cameras, projectors or photographic enlargers or reducers) |
| 9005 | Binoculars, monoculars, other optical telescopes, and mountings therefor; other astronomical instruments and mountings therefor (excl. instruments for radio-astronomy and other instruments or apparatus specified elsewhere) |
| 9007 | Cinematographic cameras and projectors, whether or not incorporating sound recording or reproducing apparatus (excl. video equipment) |
| 9010 | Apparatus and equipment for photographic or cinematographic laboratories, not elsewhere specified in chapter 90; negatoscopes; projection screens |
| 901310 | Telescopic sights for fitting to arms; periscopes; telescopes designed to form parts of machines, appliances, instruments or apparatus of chapter 90 or section XVI |
| 9014 | Direction finding compasses; other navigational instruments and appliances (excl. radio navigational equipment); parts thereof |
| 9015 | Surveying, incl. photogrammetrical surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances (excl. compasses); rangefinders |

| CN code | Description |
|---------|---|
| 9024 | Machines and appliances for testing the hardness, strength, compressibility, elasticity or other mechanical properties of materials (for example, metals, wood, textiles, paper, plastics); parts thereof |
| 902590 | Parts and accessories for hydrometers, areometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, n.e.s. |
| 9026 | Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 9014, 9015, 9028 or 9032 |
| 902710 | Gas or smoke analysis apparatus |
| 902781 | Mass spectrometers |
| 902789 | Instruments and apparatus for physical or chemical analysis, or for measuring or checking viscosity, porosity, expansion, surface tension or the like, or for measuring or checking quantities of heat, sound or light, n.e.s. (excluding mass spectrometers) |
| 9029 | Revolution counters, production counters, taximeters, milometers, pedometers and the like (excl. gas, liquid and electricity meters); speed indicators and tachometers (excl. those of heading 9014 and 9015); stroboscopes |
| 903032 | Multimeters with recording device |
| 903039 | Instruments and apparatus for measuring or checking voltage, current, resistance or electrical power, with recording device (excl. multimeters, and oscilloscopes and oscillographs) |
| 903040 | Instruments and apparatus for measuring or checking electrical quantities, specifically for telecommunications, e.g. cross-talk meters, gain measuring instruments, distortion factor meters, psophometers |

| CN code | Description |
|----------|--|
| 903082 | Instruments and apparatus for measuring or checking semiconductor wafers or devices |
| 903089 | Instruments and apparatus for measuring or checking electrical quantities, without recording device, n.e.s. |
| 9031 | Measuring or checking instruments, appliances and machines not elsewhere specified in chapter 90; profile projectors |
| 903281 | Other automatic regulating or controlling instruments and apparatus - Hydraulic or pneumatic - Other |
| 940110 | Seats for aircraft |
| 940120 | Seats for motor vehicles |
| 940330 | Wooden furniture of a kind used in offices |
| 9406 | Prefabricated buildings |
| 95030075 | Plastic toys and models, incorporating a motor n.e.s under heading 9503 |
| 95030079 | Toys and models not made of plastic, incorporating a motor n.e.s under heading 9503 |
| 9606 | Buttons, press-fasteners, snap-fasteners and press studs, button moulds and other parts of these articles; button blanks (excl. cuff links) |
| 960891 | Pen nibs and nib points |
| 961220 | Of man-made fibres, measuring less than 30 mm in width, permanently put in plastic or metal cartridges of a kind used in automatic typewriters, automatic data-processing equipment and other machines |
| ex 98 | Complete industrial plants, except plants for the production of food and drinks, pharmaceuticals, medicines and medical devices |

ANNEX IX

Annex XXIX to Regulation (EU) No 833/2014 is replaced by the following:

‘Annex XXIX

List of projects referred to in Article 3n(6)(c)

| Scope of exemption | Date of application | Date of expiration |
|---|---------------------|--------------------|
| The transport by vessel to Japan, the technical assistance, brokering services, financing or financial assistance related to such transport, of crude oil falling under CN 2709 00 commingled with condensate, originating in the Sakhalin-2 (Сахалин-2) Project, located in Russia | 5 December 2022 | 31 March 2024 |

ANNEX X

Annex XXXIII is added to Regulation (EU) No 833/2014:

‘ XXXIII

List of goods and technology and countries as referred to in Article 12f

| CN Code | Description | Country |
|---------|-------------|---------|
|---------|-------------|---------|

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ANNEX XI

Annex XXXV is added to Regulation (EU) No 833/2014:

‘ANNEX XXXV

List of firearms and other arms referred to in Article 2aa

| CN Code | Description |
|---------|--|
| 9303 | Other firearms and similar devices which operate by the firing of an explosive charge |
| ex 9304 | Other arms (for example, spring, air or gas guns and pistols), excluding those of heading 9307 |