

SECTION XVI

MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES**Notes**

1. This section does not cover:

- (a) transmission or conveyor belts or belting, of plastics of Chapter 39, or of vulcanised rubber (heading 4010); or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanised rubber other than hard rubber (heading 4016);
- (b) articles of leather or of composition leather (heading 4205) or of furskin (heading 4303), of a kind used in machinery or mechanical appliances or for other technical uses;
- (c) bobbins, spools, cops, cones, cores, reels or similar supports, of any material (for example, Chapter 39, 40, 44 or 48 or Section XV);
- (d) perforated cards for jacquard or similar machines (for example, Chapter 39 or 48 or Section XV);
- (e) transmission or conveyor belts or belting, of textile material (heading 5910) or other articles of textile material for technical uses (heading 5911);
- (f) precious or semi-precious stones (natural, synthetic or reconstructed) of headings 7102 to 7104, or articles wholly of such stones of heading 7116, except unmounted worked sapphires and diamonds for styli (heading 8522);
- (g) parts of general use, as defined in note 2 to Section XV, of base metal (Section XV), or similar goods of plastics (Chapter 39);
- (h) drill pipe (heading 7304);
- (ij) endless belts of metal wire or strip (Section XV);
- (k) articles of Chapter 82 or 83;
- (l) articles of Section XVII;
- (m) articles of Chapter 90;
- (n) clocks, watches or other articles of Chapter 91;
- (o) interchangeable tools of heading 8207 or brushes of a kind used as parts of machines (heading 9603); similar interchangeable tools are to be classified according to the constituent material of their working part (for example, in Chapter 40, 42, 43, 45 or 59 or heading 6804 or 6909);
- (p) articles of Chapter 95; or
- (q) typewriter or similar ribbons, whether or not on spools or in cartridges (classified according to their constituent material, or in heading 9612 if inked or otherwise prepared for giving impressions).

2. Subject to note 1 to this section, note 1 to Chapter 84 and note 1 to Chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

- (a) Parts which are goods included in any of the headings of Chapter 84 or 85 (other than headings 8409, 8431, 8448, 8466, 8473, 8487, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings.
- (b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517.
- (c) All other parts are to be classified in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate or, failing that, in heading 8487 or 8548.

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

4. Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in Chapter 84 or 85, then the whole falls to be classified in the heading appropriate to that function.
5. For the purposes of these notes, the expression 'machine' means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of Chapter 84 or 85.

CHAPTER 84

NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF

Notes

1. This chapter does not cover:
 - (a) millstones, grindstones or other articles of Chapter 68;
 - (b) machinery or appliances (for example, pumps) of ceramic material and ceramic parts of machinery or appliances of any material (Chapter 69);
 - (c) laboratory glassware (heading 7017); machinery, appliances or other articles for technical uses or parts thereof, of glass (heading 7019 or 7020);
 - (d) articles of heading 7321 or 7322 or similar articles of other base metals (Chapters 74 to 76 or 78 to 81);
 - (e) vacuum cleaners of heading 8508;
 - (f) electromechanical domestic appliances of heading 8509; digital cameras of heading 8525; or
 - (g) hand-operated mechanical floor sweepers, not motorised (heading 9603).
2. Subject to the operation of note 3 to Section XVI and subject to note 9 to this chapter, a machine or appliance which answers to a description in one or more of the headings 8401 to 8424, or heading 8486 and at the same time to a description in one or other of the headings 8425 to 8480 is to be classified under the appropriate heading of the former group or under heading 8486, as the case may be, and not the latter group. Heading 8419 does not, however, cover:
 - (a) germination plant, incubators or brooders (heading 8436);
 - (b) grain dampening machines (heading 8437);
 - (c) diffusing apparatus for sugar juice extraction (heading 8438);
 - (d) machinery for the heat treatment of textile yarns, fabrics or made-up textile articles (heading 8451); or
 - (e) machinery or plant, designed for mechanical operation, in which a change of temperature, even if necessary, is subsidiary.Heading 8422 does not cover:
 - (a) sewing machines for closing bags or similar containers (heading 8452); or
 - (b) office machinery of heading 8472.Heading 8424 does not cover ink-jet printing machines (heading 8443).
3. A machine tool for working any material which answers to a description in heading 8456 and at the same time to a description in heading 8457, 8458, 8459, 8460, 8461, 8464 or 8465 is to be classified in heading 8456.
4. Heading 8457 applies only to machine tools for working metal, other than lathes (including turning centres), which can carry out different types of machining operations either:
 - (a) by automatic tool change from a magazine or the like in conformity with a machining programme (machining centres);
 - (b) by the automatic use, simultaneously or sequentially, of different unit heads working on a fixed position workpiece (unit construction machines, single station); or
 - (c) by the automatic transfer of the workpiece to different unit heads (multi-station transfer machines).

- 5.(A) For the purposes of heading 8471, the expression ‘automatic data-processing machines’ means machines, capable of
- (1) storing the processing program or programs and at least the data immediately necessary for the execution of the program;
 - (2) being freely programmed in accordance with the requirements of the user;
 - (3) performing arithmetical computations specified by the user; and
 - (4) executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.
- (B) Automatic data-processing machines may be in the form of systems consisting of a variable number of separate units.
- (C) Subject to paragraph (D) and (E) below, a unit is to be regarded as being a part of an automatic data-processing system if it meets all of the following conditions:
- (1) it is of a kind solely or principally used in an automatic data-processing system;
 - (2) it is connectable to the central processing unit either directly or through one or more other units; and
 - (3) it is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- Separately presented units of an automatic data-processing machine are to be classified in heading 8471. However keyboards, X-Y coordinate input devices and disk storage units which satisfy the conditions of paragraphs (C)(2) and (C)(3) above, are in all cases to be classified as units of heading 8471.
- (D) Heading 8471 does not cover the following when presented separately, even if they meet all of the conditions set forth in note 5(C) above:
- (1) printers, copying machines, facsimile machines, whether or not combined;
 - (2) apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network);
 - (3) loudspeakers and microphones;
 - (4) television cameras, digital cameras and video camera recorders;
 - (5) monitors and projectors, not incorporating television reception apparatus.
- (E) Machines incorporating or working in conjunction with an automatic data-processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective functions or, failing that, in residual headings.
6. Heading 8482 applies, *inter alia*, to polished steel balls, the maximum and minimum diameters of which do not differ from the nominal diameter by more than 1 % or by more than 0,05 mm, whichever is less. Other steel balls are to be classified in heading 7326.
7. A machine which is used for more than one purpose is, for the purposes of classification, to be treated as if its principal purpose were its sole purpose. Subject to note 2 to this chapter and note 3 to Section XVI, a machine the principal purpose of which is not described in any heading or for which no one purpose is the principal purpose is, unless the context otherwise requires, to be classified in heading 8479. Heading 8479 also covers machines for making rope or cable (for example, stranding, twisting or cabling machines) from metal wire, textile yarn or any other material or from a combination of such materials.
8. For the purposes of heading 8470, the term ‘pocket-size’ applies only to machines the dimensions of which do not exceed 170 mm x 100 mm x 45 mm.
- 9.(A) Notes 8(a) and 8(b) to Chapter 85 also apply with respect to the expressions ‘semiconductor devices’ and ‘electronic integrated circuits’, respectively, as used in this note and in heading 8486. However, for the purposes of this note and of heading 8486, the expression ‘semiconductor devices’ also covers photosensitive semiconductor devices and light emitting diodes.
- (B) For the purposes of this note and of heading 8486, the expression ‘manufacture of flat panel displays’ covers the fabrication of substrates into a flat panel. It does not cover the manufacture of glass or the assembly of printed circuit boards or other electronic components onto the flat panel. The expression ‘flat panel display’ does not cover cathode-ray tube technology.
- (C) Heading 8486 also includes machines and apparatus solely or principally of a kind used for:

- (1) the manufacture or repair of masks and reticles;
- (2) assembling semiconductor devices or electronic integrated circuits; and
- (3) lifting, handling, loading or unloading of boules, wafers, semiconductor devices, electronic integrated circuits and flat panel displays.

(D) Subject to note 1 to Section XVI and note 1 to Chapter 84, machines and apparatus answering to the description in heading 8486 are to be classified in that heading and in no other heading of the nomenclature.

Subheading notes

1. For the purposes of subheading 8471 49, the term 'systems' means automatic data-processing machines whose units satisfy the conditions laid down in note 5(C) to Chapter 84 and which comprise at least a central processing unit, one input unit (for example, a keyboard or a scanner), and one output unit (for example, a visual display unit or a printer).
2. Subheading 8482 40 applies only to bearings with cylindrical rollers of a uniform diameter not exceeding 5 mm and having a length which is at least three times the diameter. The ends of the rollers may be rounded.

Additional notes

1. For the purposes of subheadings 8407 10 and 8409 10, the expression 'aircraft engines' shall apply only to engines designed for fitting with an airscrew or rotor.
2. Subheading 8471 70 30 shall also apply to CD-ROM drives, being storage units for automatic data-processing machines, which consist of drive units designed for retrieving the signals from CD-ROMs, audio CDs and photo CDs and equipped with a jack for earphones, a volume-control button or a start/stop button.

CN code	Description	Supplementary unit
8401	Nuclear reactors; fuel elements (cartridges), non-irradiated, for nuclear reactors; machinery and apparatus for isotopic separation :	
8401 10 00	– Nuclear reactors (<i>Euratom</i>)	–
8401 20 00	– Machinery and apparatus for isotopic separation, and parts thereof (<i>Euratom</i>)	–
8401 30 00	– Fuel elements (cartridges), non-irradiated (<i>Euratom</i>)	gi F/S
8401 40 00	– Parts of nuclear reactors (<i>Euratom</i>)	–
8402	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); superheated water boilers :	
	– Steam or other vapour generating boilers :	
8402 11 00	– – Watertube boilers with a steam production exceeding 45 tonnes per hour	–
8402 12 00	– – Watertube boilers with a steam production not exceeding 45 tonnes per hour	–
8402 19	– – Other vapour generating boilers, including hybrid boilers :	
8402 19 10	– – – Firetube boilers	–
8402 19 90	– – – Other	–
8402 20 00	– Superheated water boilers	–
8402 90 00	– Parts	–
8403	Central heating boilers other than those of heading 8402 :	
8403 10	– Boilers :	
8403 10 10	– – Of cast iron	–
8403 10 90	– – Other	–
8403 90	– Parts :	
8403 90 10	– – Of cast iron	–
8403 90 90	– – Other	–
8404	Auxiliary plant for use with boilers of heading 8402 or 8403 (for example, economisers, superheaters, soot removers, gas recoverers); condensers for steam or other vapour power units :	
8404 10 00	– Auxiliary plant for use with boilers of heading 8402 or 8403	–
8404 20 00	– Condensers for steam or other vapour power units	–

CN code	Description	Supplementary unit
8404 90 00	– Parts	–
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 :	
8405 10 00	– 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 ...	–
8405 90 00	– Parts	–
8406	Steam turbines and other vapour turbines :	
8406 10 00	– Turbines for marine propulsion	–
	– Other turbines :	
8406 81 00	– – Of an output exceeding 40 MW	–
8406 82 00	– – Of an output not exceeding 40 MW	–
8406 90	– Parts :	
8406 90 10	– – Stator blades, rotors and their blades	–
8406 90 90	– – Other	–
8407	Spark-ignition reciprocating or rotary internal combustion piston engines :	
8407 10 00	– Aircraft engines	p/st
	– Marine propulsion engines :	
8407 21	– – Outboard motors :	
8407 21 10	– – – Of a cylinder capacity not exceeding 325 cm ³	p/st
	– – – Of a cylinder capacity exceeding 325 cm ³ :	
8407 21 91	– – – – Of a power not exceeding 30 kW	p/st
8407 21 99	– – – – Of a power exceeding 30 kW	p/st
8407 29 00	– – Other	p/st
	– Reciprocating piston engines of a kind used for the propulsion of vehicles of Chapter 87 :	
8407 31 00	– – Of a cylinder capacity not exceeding 50 cm³	p/st
8407 32	– – Of a cylinder capacity exceeding 50 cm³ but not exceeding 250 cm³ :	
8407 32 10	– – – Of a cylinder capacity exceeding 50 cm ³ but not exceeding 125 cm ³	p/st
8407 32 90	– – – Of a cylinder capacity exceeding 125 cm ³ but not exceeding 250 cm ³	p/st
8407 33 00	– – Of a cylinder capacity exceeding 250 cm³ but not exceeding 1000 cm³	p/st
8407 34	– – Of a cylinder capacity exceeding 1000 cm³ :	
8407 34 10	– – – For the industrial assembly of: pedestrian-controlled tractors of subheading 870110; motor vehicles of heading 8703; motor vehicles of heading 8704 with an engine of a cylinder capacity of less than 2800 cm ³ ; motor vehicles of heading 8705 ⁽¹⁾	p/st
	– – – Other :	
8407 34 30	– – – – Used	p/st
	– – – – New, of a cylinder capacity :	
8407 34 91	– – – – – Not exceeding 1500 cm ³	p/st
8407 34 99	– – – – – Exceeding 1500 cm ³	p/st
8407 90	– Other engines :	
8407 90 10	– – Of a cylinder capacity not exceeding 250 cm ³	p/st
	– – Of a cylinder capacity exceeding 250 cm ³ :	
8407 90 50	– – – For the industrial assembly of: pedestrian-controlled tractors of subheading 870110; motor vehicles of heading 8703; motor vehicles of heading 8704 with an engine of a cylinder capacity of less than 2800 cm ³ ; motor vehicles of heading 8705 ⁽¹⁾	p/st
	– – – Other :	
8407 90 80	– – – – Of a power not exceeding 10 kW	p/st
8407 90 90	– – – – Of a power exceeding 10 kW	p/st

CN code	Description	Supplementary unit
8408	Compression-ignition internal combustion piston engines (diesel or semi-diesel engines) :	
8408 10	– Marine propulsion engines :	
	– – Used :	
8408 10 11	– – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 19	– – – Other	p/st
	– – New, of a power :	
	– – – Not exceeding 50 kW :	
8408 10 23	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 27	– – – – Other	p/st
	– – – Exceeding 50 kW but not exceeding 100 kW :	
8408 10 31	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 39	– – – – Other	p/st
	– – – Exceeding 100 kW but not exceeding 200 kW :	
8408 10 41	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 49	– – – – Other	p/st
	– – – Exceeding 200 kW but not exceeding 300 kW :	
8408 10 51	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 59	– – – – Other	p/st
	– – – Exceeding 300 kW but not exceeding 500 kW :	
8408 10 61	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 69	– – – – Other	p/st
	– – – Exceeding 500 kW but not exceeding 1000 kW :	
8408 10 71	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 79	– – – – Other	p/st
	– – – Exceeding 1000 kW but not exceeding 5000 kW :	
8408 10 81	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 89	– – – – Other	p/st
	– – – Exceeding 5000 kW :	
8408 10 91	– – – – For seagoing vessels of headings 8901 to 8906, tugs of subheading 89040010 and warships of subheading 89061000 ⁽¹⁾	p/st
8408 10 99	– – – – Other	p/st
8408 20	– Engines of a kind used for the propulsion of vehicles of Chapter 87 :	
8408 20 10	– – For the industrial assembly of: pedestrian-controlled tractors of subheading 870110; motor vehicles of heading 8703; motor vehicles of heading 8704 with an engine of a cylinder capacity of less than 2500 cm ³ ; motor vehicles of heading 8705 ⁽¹⁾	p/st
	– – Other :	
	– – – For wheeled agricultural or forestry tractors, of a power :	
8408 20 31	– – – – Not exceeding 50 kW	p/st
8408 20 35	– – – – Exceeding 50 kW but not exceeding 100 kW	p/st
8408 20 37	– – – – Exceeding 100 kW	p/st
	– – – For other vehicles of Chapter 87, of a power :	
8408 20 51	– – – – Not exceeding 50 kW	p/st
8408 20 55	– – – – Exceeding 50 kW but not exceeding 100 kW	p/st
8408 20 57	– – – – Exceeding 100 kW but not exceeding 200 kW	p/st
8408 20 99	– – – – Exceeding 200 kW	p/st

CN code	Description	Supplementary unit
8408 90	– Other engines :	
8408 90 21	– – For rail traction	p/st
	– – Other :	
8408 90 27	– – – Used	p/st
	– – – New, of a power :	
8408 90 41	– – – – Not exceeding 15 kW	p/st
8408 90 43	– – – – Exceeding 15 kW but not exceeding 30 kW	p/st
8408 90 45	– – – – Exceeding 30 kW but not exceeding 50 kW	p/st
8408 90 47	– – – – Exceeding 50 kW but not exceeding 100 kW	p/st
8408 90 61	– – – – Exceeding 100 kW but not exceeding 200 kW	p/st
8408 90 65	– – – – Exceeding 200 kW but not exceeding 300 kW	p/st
8408 90 67	– – – – Exceeding 300 kW but not exceeding 500 kW	p/st
8408 90 81	– – – – Exceeding 500 kW but not exceeding 1000 kW	p/st
8408 90 85	– – – – Exceeding 1000 kW but not exceeding 5000 kW	p/st
8408 90 89	– – – – Exceeding 5000 kW	p/st
8409	Parts suitable for use solely or principally with the engines of heading 8407 or 8408 :	
8409 10 00	– For aircraft engines	–
	– Other :	
8409 91 00	– – Suitable for use solely or principally with spark-ignition internal combustion piston engines	–
8409 99 00	– – Other	–
8410	Hydraulic turbines, water wheels, and regulators therefor :	
	– Hydraulic turbines and water wheels :	
8410 11 00	– – Of a power not exceeding 1000 kW	–
8410 12 00	– – Of a power exceeding 1000 kW but not exceeding 10000 kW	–
8410 13 00	– – Of a power exceeding 10000 kW	–
8410 90 00	– Parts, including regulators	–
8411	Turbojets, turbopropellers and other gas turbines :	
	– Turbojets :	
8411 11 00	– – Of a thrust not exceeding 25 kN	p/st
8411 12	– – Of a thrust exceeding 25 kN :	
8411 12 10	– – – Of a thrust exceeding 25 kN but not exceeding 44 kN	p/st
8411 12 30	– – – Of a thrust exceeding 44 kN but not exceeding 132 kN	p/st
8411 12 80	– – – Of a thrust exceeding 132 kN	p/st
	– Turbopropellers :	
8411 21 00	– – Of a power not exceeding 1100 kW	p/st
8411 22	– – Of a power exceeding 1100 kW :	
8411 22 20	– – – Of a power exceeding 1100 kW but not exceeding 3730 kW	p/st
8411 22 80	– – – Of a power exceeding 3730 kW	p/st
	– Other gas turbines :	
8411 81 00	– – Of a power not exceeding 5000 kW	p/st
8411 82	– – Of a power exceeding 5000 kW :	
8411 82 20	– – – Of a power exceeding 5000 kW but not exceeding 20000 kW	p/st
8411 82 60	– – – Of a power exceeding 20000 kW but not exceeding 50000 kW	p/st
8411 82 80	– – – Of a power exceeding 50000 kW	p/st
	– Parts :	
8411 91 00	– – Of turbojets or turbopropellers	–
8411 99 00	– – Other	–

CN code	Description	Supplementary unit
8412	Other engines and motors :	
8412 10 00	– Reaction engines other than turbojets	p/st
	– Hydraulic power engines and motors :	
8412 21	– – Linear acting (cylinders) :	
8412 21 20	– – – Hydraulic systems	–
8412 21 80	– – – Other	–
8412 29	– – Other :	
8412 29 20	– – – Hydraulic systems	–
	– – – Other :	
8412 29 81	– – – – Hydraulic fluid power motors	–
8412 29 89	– – – – Other	–
	– Pneumatic power engines and motors :	
8412 31 00	– – Linear acting (cylinders)	–
8412 39 00	– – Other	–
8412 80	– Other :	
8412 80 10	– – Steam or other vapour power engines	–
8412 80 80	– – Other	–
8412 90	– Parts :	
8412 90 20	– – Of reaction engines other than turbojets	–
8412 90 40	– – Of hydraulic power engines and motors	–
8412 90 80	– – Other	–
8413	Pumps for liquids, whether or not fitted with a measuring device; liquid elevators :	
	– Pumps fitted or designed to be fitted with a measuring device :	
8413 11 00	– – Pumps for dispensing fuel or lubricants, of the type used in filling stations or in garages	p/st
8413 19 00	– – Other	p/st
8413 20 00	– Handpumps, other than those of subheading 841311 or 841319	p/st
8413 30	– Fuel, lubricating or cooling medium pumps for internal combustion piston engines :	
8413 30 20	– – Injection pumps	p/st
8413 30 80	– – Other	p/st
8413 40 00	– Concrete pumps	p/st
8413 50	– Other reciprocating positive displacement pumps :	
8413 50 20	– – Hydraulic units	–
8413 50 40	– – Dosing and proportioning pumps	p/st
	– – Other :	
	– – – Piston pumps :	
8413 50 61	– – – – Hydraulic fluid power	p/st
8413 50 69	– – – – Other	p/st
8413 50 80	– – – Other	p/st
8413 60	– Other rotary positive displacement pumps :	
8413 60 20	– – Hydraulic units	–
	– – Other :	
	– – – Gear pumps :	
8413 60 31	– – – – Hydraulic fluid power	p/st
8413 60 39	– – – – Other	p/st
	– – – Vane pumps :	
8413 60 61	– – – – Hydraulic fluid power	p/st
8413 60 69	– – – – Other	p/st
8413 60 70	– – – Screw pumps	p/st
8413 60 80	– – – Other	p/st
8413 70	– Other centrifugal pumps :	
	– – Submersible pumps :	
8413 70 21	– – – Single-stage	p/st
8413 70 29	– – – Multi-stage	p/st

CN code	Description	Supplementary unit
8413 70 30	– – Glandless impeller pumps for heating systems and warm water supply	p/st
	– – Other, with a discharge outlet diameter :	
8413 70 35	– – – Not exceeding 15 mm	p/st
	– – – Exceeding 15 mm :	
8413 70 45	– – – – Channel impeller pumps and side channel pumps	p/st
	– – – – Radial flow pumps :	
	– – – – – Single-stage :	
	– – – – – With single entry impeller :	
8413 70 51	– – – – – – Monobloc	p/st
8413 70 59	– – – – – – Other	p/st
8413 70 65	– – – – – – With more than one entry impeller	p/st
8413 70 75	– – – – – Multi-stage	p/st
	– – – – Other centrifugal pumps :	
8413 70 81	– – – – – Single-stage	p/st
8413 70 89	– – – – – Multi-stage	p/st
	– Other pumps; liquid elevators :	
8413 81 00	– – Pumps	p/st
8413 82 00	– – Liquid elevators	p/st
	– Parts :	
8413 91 00	– – Of pumps	–
8413 92 00	– – Of liquid elevators	–
8414	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters :	
8414 10	– Vacuum pumps :	
8414 10 20	– – For use in semiconductor production ⁽¹⁾	p/st
	– – Other :	
8414 10 25	– – – Rotary piston pumps, sliding vane rotary pumps, molecular drag pumps and Roots pumps	p/st
	– – – Other :	
8414 10 81	– – – – Diffusion pumps, cryopumps and adsorption pumps	p/st
8414 10 89	– – – – Other	p/st
8414 20	– Hand- or foot-operated air pumps :	
8414 20 20	– – Handpumps for cycles	p/st
8414 20 80	– – Other	p/st
8414 30	– Compressors of a kind used in refrigerating equipment :	
8414 30 20	– – Of a power not exceeding 0,4 kW	p/st
	– – Of a power exceeding 0,4 kW :	
8414 30 81	– – – Hermetic or semi-hermetic	p/st
8414 30 89	– – – Other	p/st
8414 40	– Air compressors mounted on a wheeled chassis for towing :	
8414 40 10	– – Giving a flow per minute not exceeding 2 m ³	p/st
8414 40 90	– – Giving a flow per minute exceeding 2 m ³	p/st
	– Fans :	
8414 51 00	– – Table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output not exceeding 125 W	p/st
8414 59	– – Other :	
8414 59 20	– – – Axial fans	p/st
8414 59 40	– – – Centrifugal fans	p/st
8414 59 80	– – – Other	p/st
8414 60 00	– Hoods having a maximum horizontal side not exceeding 120 cm	p/st
8414 80	– Other :	
	– – Turbo-compressors :	
8414 80 11	– – – Single-stage	p/st
8414 80 19	– – – Multi-stage	p/st

CN code	Description	Supplementary unit
	– – Reciprocating displacement compressors, having a gauge pressure capacity of :	
	– – – Not exceeding 15 bar, giving a flow per hour :	
8414 80 22	– – – – Not exceeding 60 m ³	p/st
8414 80 28	– – – – Exceeding 60 m ³	p/st
	– – – Exceeding 15 bar, giving a flow per hour :	
8414 80 51	– – – – Not exceeding 120 m ³	p/st
8414 80 59	– – – – Exceeding 120 m ³	p/st
	– – Rotary displacement compressors :	
8414 80 73	– – – Single-shaft	p/st
	– – – Multi-shaft :	
8414 80 75	– – – – Screw compressors	p/st
8414 80 78	– – – – Other	p/st
8414 80 80	– – Other	p/st
8414 90 00	– Parts	–
8415	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 :	
8415 10	– Window or wall types, self-contained or 'split-system' :	
8415 10 10	– – Self-contained	–
8415 10 90	– – Split-system	–
8415 20 00	– Of a kind used for persons, in motor vehicles	–
	– Other :	
8415 81 00	– – Incorporating a refrigerating unit and a valve for reversal of the cooling/heat cycle (reversible heat pumps)	–
8415 82 00	– – Other, incorporating a refrigerating unit	–
8415 83 00	– – Not incorporating a refrigerating unit	–
8415 90 00	– Parts	–
8416	Furnace burners for liquid fuel, for pulverised solid fuel or for gas; mechanical stokers, including their mechanical grates, mechanical ash dischargers and similar appliances :	
8416 10	– Furnace burners for liquid fuel :	
8416 10 10	– – Incorporating an automatic control device	p/st
8416 10 90	– – Other	p/st
8416 20	– Other furnace burners, including combination burners :	
8416 20 10	– – Only for gas, monobloc, incorporating a ventilator and a control device	p/st
	– – Other :	
8416 20 20	– – – Combination burners	p/st
8416 20 80	– – – Other	–
8416 30 00	– Mechanical stokers, including their mechanical grates, mechanical ash dischargers and similar appliances	–
8416 90 00	– Parts	–
8417	Industrial or laboratory furnaces and ovens, including incinerators, non-electric :	
8417 10 00	– Furnaces and ovens for the roasting, melting or other heat treatment of ores, pyrites or of metals	–
8417 20	– Bakery ovens, including biscuit ovens :	
8417 20 10	– – Tunnel ovens	–
8417 20 90	– – Other	–
8417 80	– Other :	
8417 80 30	– – Ovens and furnaces for firing ceramic products	p/st
8417 80 50	– – Ovens and furnaces for firing cement, glass or chemical products	p/st
8417 80 70	– – Other	–
8417 90 00	– Parts	–

CN code	Description	Supplementary unit
8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air-conditioning machines of heading 8415 :	
8418 10	– Combined refrigerator-freezers, fitted with separate external doors :	
8418 10 20	– – Of a capacity exceeding 340 litres	p/st
8418 10 80	– – Other	p/st
	– Refrigerators, household type :	
8418 21	– – Compression-type :	
8418 21 10	– – – Of a capacity exceeding 340 litres	p/st
	– – – Other :	
8418 21 51	– – – – Table model	p/st
8418 21 59	– – – – Building-in type	p/st
	– – – – Other, of a capacity :	
8418 21 91	– – – – – Not exceeding 250 litres	p/st
8418 21 99	– – – – – Exceeding 250 litres but not exceeding 340 litres	p/st
8418 29 00	– – Other	p/st
8418 30	– Freezers of the chest type, not exceeding 800 litres capacity :	
8418 30 20	– – Of a capacity not exceeding 400 litres	p/st
8418 30 80	– – Of a capacity exceeding 400 litres but not exceeding 800 litres	p/st
8418 40	– Freezers of the upright type, not exceeding 900 litres capacity :	
8418 40 20	– – Of a capacity not exceeding 250 litres	p/st
8418 40 80	– – Of a capacity exceeding 250 litres but not exceeding 900 litres	p/st
8418 50	– Other furniture (chests, cabinets, display counters, showcases and the like) for storage and display, incorporating refrigerating or freezing equipment :	
	– – Refrigerated showcases and counters (incorporating a refrigerating unit or evaporator) :	
8418 50 11	– – – For frozen food storage	p/st
8418 50 19	– – – Other	p/st
8418 50 90	– – Other refrigerating furniture	p/st
	– Other refrigerating or freezing equipment; heat pumps :	
8418 61 00	– – Heat pumps other than air conditioning machines of heading 8415	–
8418 69 00	– – Other	–
	– Parts :	
8418 91 00	– – Furniture designed to receive refrigerating or freezing equipment	–
8418 99	– – Other :	
8418 99 10	– – – Evaporators and condensers, excluding those for refrigerators of the household type ...	–
8418 99 90	– – – Other	–
8419	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding 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, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, non-electric :	
	– Instantaneous or storage water heaters, non-electric :	
8419 11 00	– – Instantaneous gas water heaters	–
8419 19 00	– – Other	–
8419 20 00	– Medical, surgical or laboratory sterilisers	–
	– Dryers :	
8419 31 00	– – For agricultural products	–
8419 32 00	– – For wood, paper pulp, paper or paperboard	–
8419 39 00	– – Other	–
8419 40 00	– Distilling or rectifying plant	–
8419 50 00	– Heat-exchange units	–
8419 60 00	– Machinery for liquefying air or other gases	–

CN code	Description	Supplementary unit
	– Other machinery, plant and equipment :	
8419 81	– – For making hot drinks or for cooking or heating food :	
8419 81 20	– – – Percolators and other appliances for making coffee and other hot drinks	–
8419 81 80	– – – Other	–
8419 89	– – Other :	
8419 89 10	– – – Cooling towers and similar plant for direct cooling (without a separating wall) by means of recirculated water	–
8419 89 30	– – – Vacuum-vapour plant for the deposition of metal	–
8419 89 98	– – – Other	–
8419 90	– Parts :	
8419 90 15	– – Of sterilisers of subheading 84192000	–
8419 90 85	– – Other	–
8420	Calendering or other rolling machines, other than for metals or glass, and cylinders therefor :	
8420 10	– Calendering or other rolling machines :	
8420 10 10	– – Of a kind used in the textile industry	–
8420 10 30	– – Of a kind used in the paper industry	–
8420 10 80	– – Other	–
	– Parts :	
8420 91	– – Cylinders :	
8420 91 10	– – – Of cast iron	–
8420 91 80	– – – Other	–
8420 99 00	– – Other	–
8421	Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases :	
	– Centrifuges, including centrifugal dryers :	
8421 11 00	– – Cream separators	–
8421 12 00	– – Clothes dryers	p/st
8421 19	– – Other :	
8421 19 20	– – – Centrifuges of a kind used in laboratories	–
8421 19 70	– – – Other	–
	– Filtering or purifying machinery and apparatus for liquids :	
8421 21 00	– – For filtering or purifying water	–
8421 22 00	– – For filtering or purifying beverages other than water	–
8421 23 00	– – Oil or petrol filters for internal combustion engines	–
8421 29 00	– – Other	–
	– Filtering or purifying machinery and apparatus for gases :	
8421 31 00	– – Intake air filters for internal combustion engines	–
8421 39	– – Other :	
8421 39 20	– – – Machinery and apparatus for filtering or purifying air	–
	– – – Machinery and apparatus for filtering or purifying other gases :	
8421 39 60	– – – – By a catalytic process	–
8421 39 80	– – – – Other	–
	– Parts :	
8421 91 00	– – Of centrifuges, including centrifugal dryers	–
8421 99 00	– – Other	–

CN code	Description	Supplementary unit
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 (including heat-shrink wrapping machinery); machinery for aerating beverages :	
	– Dishwashing machines :	
8422 11 00	– – Of the household type	p/st
8422 19 00	– – Other	p/st
8422 20 00	– Machinery for cleaning or drying bottles or other containers	–
8422 30 00	– Machinery for filling, closing, sealing or labelling bottles, cans, boxes, bags or other containers; machinery for capsuling bottles, jars, tubes and similar containers; machinery for aerating beverages	–
8422 40 00	– Other packing or wrapping machinery (including heat-shrink wrapping machinery) ...	–
8422 90	– Parts :	
8422 90 10	– – Of dishwashing machines	–
8422 90 90	– – Other	–
8423	Weighing machinery (excluding balances of a sensitivity of 5 cg or better), including weight-operated counting or checking machines; weighing machine weights of all kinds :	
8423 10	– Personal weighing machines, including baby scales; household scales :	
8423 10 10	– – Household scales	p/st
8423 10 90	– – Other	p/st
8423 20 00	– Scales for continuous weighing of goods on conveyors	p/st
8423 30 00	– Constant weight scales and scales for discharging a predetermined weight of material into a bag or container, including hopper scales	p/st
	– Other weighing machinery :	
8423 81	– – Having a maximum weighing capacity not exceeding 30 kg :	
8423 81 10	– – – Check weighers and automatic control machines operating by reference to a pre-determined weight	p/st
8423 81 30	– – – Machinery for weighing and labelling pre-packaged goods	p/st
8423 81 50	– – – Shop scales	p/st
8423 81 90	– – – Other	p/st
8423 82	– – Having a maximum weighing capacity exceeding 30 kg but not exceeding 5000 kg :	
8423 82 10	– – – Check weighers and automatic control machines operating by reference to a pre-determined weight	p/st
8423 82 90	– – – Other	p/st
8423 89 00	– – Other	p/st
8423 90 00	– Weighing machine weights of all kinds; parts of weighing machinery	–
8424	Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar appliances; steam or sandblasting machines and similar jet projecting machines :	
8424 10 00	– Fire extinguishers, whether or not charged	–
8424 20 00	– Spray guns and similar appliances	–
8424 30	– Steam or sandblasting machines and similar jet projecting machines :	
	– – Water cleaning appliances, with built-in motor :	
8424 30 01	– – – With heating device	p/st
8424 30 08	– – – Other	p/st
	– – Other machines :	
8424 30 10	– – – Compressed air operated	–
8424 30 90	– – – Other	–

CN code	Description	Supplementary unit
	– Other appliances :	
8424 81	– – Agricultural or horticultural :	
8424 81 10	– – – Watering appliances	–
	– – – Other :	
8424 81 30	– – – – Portable appliances	p/st
	– – – – Other :	
8424 81 91	– – – – – Sprayers and powder distributors designed to be mounted on or drawn by tractors	p/st
8424 81 99	– – – – – Other	p/st
8424 89 00	– – Other	–
8424 90 00	– Parts	–
8425	Pulley tackle and hoists other than skip hoists; winches and capstans; jacks :	
	– Pulley tackle and hoists other than skip hoists or hoists of a kind used for raising vehicles :	
8425 11 00	– – Powered by electric motor	p/st
8425 19 00	– – Other	p/st
	– Other winches; capstans :	
8425 31 00	– – Powered by electric motor	p/st
8425 39 00	– – Other	p/st
	– Jacks; hoists of a kind used for raising vehicles :	
8425 41 00	– – Built-in jacking systems of a type used in garages	p/st
8425 42 00	– – Other jacks and hoists, hydraulic	p/st
8425 49 00	– – Other	p/st
8426	Ships' derricks; cranes, including cable cranes; mobile lifting frames, straddle carriers and works trucks fitted with a crane :	
	– Overhead travelling cranes, transporter cranes, gantry cranes, bridge cranes, mobile lifting frames and straddle carriers :	
8426 11 00	– – Overhead travelling cranes on fixed support	–
8426 12 00	– – Mobile lifting frames on tyres and straddle carriers	–
8426 19 00	– – Other	–
8426 20 00	– Tower cranes	–
8426 30 00	– Portal or pedestal jib cranes	–
	– Other machinery, self-propelled :	
8426 41 00	– – On tyres	–
8426 49 00	– – Other	–
	– Other machinery :	
8426 91	– – Designed for mounting on road vehicles :	
8426 91 10	– – – Hydraulic cranes designed for the loading and unloading of the vehicle	p/st
8426 91 90	– – – Other	–
8426 99 00	– – Other	–
8427	Fork-lift trucks; other works trucks fitted with lifting or handling equipment :	
8427 10	– Self-propelled trucks powered by an electric motor :	
8427 10 10	– – With a lifting height of 1 m or more	p/st
8427 10 90	– – Other	p/st
8427 20	– Other self-propelled trucks :	
	– – With a lifting height of 1 m or more :	
8427 20 11	– – – Rough terrain fork-lift and other stacking trucks	p/st
8427 20 19	– – – Other	p/st
8427 20 90	– – Other	p/st
8427 90 00	– Other trucks	p/st

CN code	Description	Supplementary unit
8428	Other lifting, handling, loading or unloading machinery (for example, lifts, escalators, conveyors, teleferics) :	
8428 10	– Lifts and skip hoists :	
8428 10 20	– – Electrically operated	–
8428 10 80	– – Other	–
8428 20	– Pneumatic elevators and conveyors :	
8428 20 20	– – For bulk materials	–
8428 20 80	– – Other	–
	– Other continuous-action elevators and conveyors, for goods or materials :	
8428 31 00	– – Specially designed for underground use	–
8428 32 00	– – Other, bucket type	–
8428 33 00	– – Other, belt type	–
8428 39	– – Other :	
8428 39 20	– – – Roller conveyors	–
8428 39 90	– – – Other	–
8428 40 00	– Escalators and moving walkways	–
8428 60 00	– Teleferics, chairlifts, ski-draglines; traction mechanisms for funiculars	–
8428 90	– Other machinery :	
	– – Loaders specially designed for use in agriculture :	
8428 90 71	– – – Designed for attachment to agricultural tractors	–
8428 90 79	– – – Other	–
8428 90 90	– – Other	–
8429	Self-propelled bulldozers, angledozers, graders, levellers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and roadrollers :	
	– Bulldozers and angledozers :	
8429 11 00	– – Track laying	p/st
8429 19 00	– – Other	p/st
8429 20 00	– Graders and levellers	p/st
8429 30 00	– Scrapers	p/st
8429 40	– Tamping machines and roadrollers :	
	– – Roadrollers :	
8429 40 10	– – – Vibratory	p/st
8429 40 30	– – – Other	p/st
8429 40 90	– – Tamping machines	p/st
	– Mechanical shovels, excavators and shovel loaders :	
8429 51	– – Front-end shovel loaders :	
8429 51 10	– – – Loaders specially designed for underground use	p/st
	– – – Other :	
8429 51 91	– – – – Crawler shovel loaders	p/st
8429 51 99	– – – – Other	p/st
8429 52	– – Machinery with a 360° revolving superstructure :	
8429 52 10	– – – Track-laying excavators	p/st
8429 52 90	– – – Other	p/st
8429 59 00	– – Other	p/st
8430	Other moving, grading, levelling, scraping, excavating, tamping, compacting, extracting or boring machinery, for earth, minerals or ores; piledrivers and pile extractors; snowploughs and snowblowers :	
8430 10 00	– Piledrivers and pile extractors	p/st
8430 20 00	– Snowploughs and snowblowers	p/st
	– Coal or rock cutters and tunnelling machinery :	
8430 31 00	– – Self-propelled	–
8430 39 00	– – Other	–

CN code	Description	Supplementary unit
	– Other boring or sinking machinery :	
8430 41 00	– – Self-propelled	–
8430 49 00	– – Other	–
8430 50 00	– Other machinery, self-propelled	–
	– Other machinery, not self-propelled :	
8430 61 00	– – Tamping or compacting machinery	p/st
8430 69 00	– – Other	–
8431	Parts suitable for use solely or principally with the machinery of headings 8425 to 8430 :	
8431 10 00	– Of machinery of heading 8425	–
8431 20 00	– Of machinery of heading 8427	–
	– Of machinery of heading 8428 :	
8431 31 00	– – Of lifts, skip hoists or escalators	–
★ 8431 39 00	– – Other	–
	– Of machinery of heading 8426, 8429 or 8430 :	
8431 41 00	– – Buckets, shovels, grabs and grips	–
8431 42 00	– – Bulldozer or angledozer blades	–
8431 43 00	– – Parts for boring or sinking machinery of subheading 843041 or 843049	–
8431 49	– – Other :	
8431 49 20	– – – Of cast iron or cast steel	–
8431 49 80	– – – Other	–
8432	Agricultural, horticultural or forestry machinery for soil preparation or cultivation; lawn or sports-ground rollers :	
8432 10 00	– Ploughs	p/st
	– Harrows, scarifiers, cultivators, weeders and hoes :	
8432 21 00	– – Disc harrows	p/st
8432 29	– – Other :	
8432 29 10	– – – Scarifiers and cultivators	p/st
8432 29 30	– – – Harrows	p/st
8432 29 50	– – – Rotovators	p/st
8432 29 90	– – – Other	p/st
8432 30	– Seeders, planters and transplanters :	
	– – Seeders :	
8432 30 11	– – – Central driven precision spacing seeders	p/st
8432 30 19	– – – Other	p/st
8432 30 90	– – Planters and transplanters	p/st
8432 40	– Manure spreaders and fertiliser distributors :	
8432 40 10	– – Mineral or chemical fertiliser distribution	p/st
8432 40 90	– – Other	p/st
8432 80 00	– Other machinery	–
8432 90 00	– Parts	–
8433	Harvesting or threshing machinery, including straw or fodder balers; grass or hay mowers; machines for cleaning, sorting or grading eggs, fruit or other agricultural produce, other than machinery of heading 8437 :	
	– Mowers for lawns, parks or sports grounds :	
8433 11	– – Powered, with the cutting device rotating in a horizontal plane :	
8433 11 10	– – – Electric	p/st
	– – – Other :	
	– – – – Self-propelled :	
8433 11 51	– – – – With a seat	p/st
8433 11 59	– – – – Other	p/st
8433 11 90	– – – – Other	p/st

CN code	Description	Supplementary unit
8433 19	– – Other :	
	– – – With motor :	
8433 19 10	– – – – Electric	p/st
	– – – – Other :	
	– – – – – Self-propelled :	
8433 19 51	– – – – – – With a seat	p/st
8433 19 59	– – – – – – Other	p/st
8433 19 70	– – – – – Other	p/st
8433 19 90	– – – Without motor	p/st
8433 20	– Other mowers, including cutter bars for tractor mounting :	
8433 20 10	– – With motor	p/st
	– – Other :	
8433 20 50	– – – Designed to be carried on or hauled by a tractor	p/st
8433 20 90	– – – Other	p/st
8433 30 00	– Other haymaking machinery	p/st
8433 40 00	– Straw or fodder balers, including pick-up balers	p/st
	– Other harvesting machinery; threshing machinery :	
8433 51 00	– – Combine harvester-threshers	p/st
8433 52 00	– – Other threshing machinery	p/st
8433 53	– – Root or tuber harvesting machines :	
8433 53 10	– – – Potato diggers and potato harvesters	p/st
8433 53 30	– – – Beet-topping machines and beet harvesters	p/st
8433 53 90	– – – Other	p/st
8433 59	– – Other :	
	– – – Forage harvesters :	
8433 59 11	– – – – Self-propelled	p/st
8433 59 19	– – – – Other	p/st
8433 59 85	– – – Other	p/st
8433 60 00	– Machines for cleaning, sorting or grading eggs, fruit or other agricultural produce	–
8433 90 00	– Parts	–
8434	Milking machines and dairy machinery :	
8434 10 00	– Milking machines	–
8434 20 00	– Dairy machinery	–
8434 90 00	– Parts	–
8435	Presses, crushers and similar machinery used in the manufacture of wine, cider, fruit juices or similar beverages :	
8435 10 00	– Machinery	–
8435 90 00	– Parts	–
8436	Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery, including germination plant fitted with mechanical or thermal equipment; poultry incubators and brooders :	
8436 10 00	– Machinery for preparing animal feedingstuffs	–
	– Poultry-keeping machinery; poultry incubators and brooders :	
8436 21 00	– – Poultry incubators and brooders	–
8436 29 00	– – Other	–
8436 80	– Other machinery :	
8436 80 10	– – Forestry machinery	p/st
8436 80 90	– – Other	–
	– Parts :	
8436 91 00	– – Of poultry-keeping machinery or poultry incubators and brooders	–
8436 99 00	– – Other	–

CN code	Description	Supplementary unit
8437	Machines for cleaning, sorting or grading seed, grain or dried leguminous vegetables; machinery used in the milling industry or for the working of cereals or dried leguminous vegetables, other than farm-type machinery :	
8437 10 00	– Machines for cleaning, sorting or grading seed, grain or dried leguminous vegetables ..	p/st
8437 80 00	– Other machinery	–
8437 90 00	– Parts	–
8438	Machinery, not specified or included elsewhere in this chapter, for the industrial preparation or manufacture of food or drink, other than machinery for the extraction or preparation of animal or fixed vegetable fats or oils :	
8438 10	– Bakery machinery and machinery for the manufacture of macaroni, spaghetti or similar products :	
8438 10 10	– – Bakery machinery	–
8438 10 90	– – Machinery for the manufacture of macaroni, spaghetti or similar products	–
8438 20 00	– Machinery for the manufacture of confectionery, cocoa or chocolate	–
8438 30 00	– Machinery for sugar manufacture	–
8438 40 00	– Brewery machinery	–
8438 50 00	– Machinery for the preparation of meat or poultry	–
8438 60 00	– Machinery for the preparation of fruits, nuts or vegetables	–
8438 80	– Other machinery :	
8438 80 10	– – For the preparation of tea or coffee	–
8438 80 91	– – – For the preparation or manufacture of drink	–
8438 80 99	– – – Other	–
8438 90 00	– Parts	–
8439	Machinery for making pulp of fibrous cellulosic material or for making or finishing paper or paperboard :	
8439 10 00	– Machinery for making pulp of fibrous cellulosic material	–
8439 20 00	– Machinery for making paper or paperboard	–
8439 30 00	– Machinery for finishing paper or paperboard	–
8439 91	– Parts :	
8439 91 10	– – Of machinery for making pulp of fibrous cellulosic material :	
8439 91 90	– – – Of cast iron or cast steel	–
8439 99	– – Other :	
8439 99 10	– – – Of cast iron or cast steel	–
8439 99 90	– – – Other	–
8440	Bookbinding machinery, including book-sewing machines :	
8440 10	– Machinery :	
8440 10 10	– – Folding machines	–
8440 10 20	– – Collating machines and gathering machines	–
8440 10 30	– – Sewing, wire stitching and stapling machines	–
8440 10 40	– – Unsewn (perfect) binding machines	–
8440 10 90	– – Other	–
8440 90 00	– Parts	–
8441	Other machinery for making up paper pulp, paper or paperboard, including cutting machines of all kinds :	
8441 10	– Cutting machines :	
8441 10 10	– – Combined reel slitting and re-reeling machines	–
8441 10 20	– – Other slitting and cross-cutting machines	–
8441 10 30	– – Guillotines	–
8441 10 70	– – Other	–

CN code	Description	Supplementary unit
8441 20 00	– Machines for making bags, sacks or envelopes	–
8441 30 00	– Machines for making cartons, boxes, cases, tubes, drums or similar containers, other than by moulding	–
8441 40 00	– Machines for moulding articles in paper pulp, paper or paperboard	–
8441 80 00	– Other machinery	–
8441 90	– Parts :	
8441 90 10	– – Of cutting machines	–
8441 90 90	– – Other	–
8442	Machinery, apparatus and equipment (other than the machine tools of headings 8456 to 8465) for preparing or making plates, cylinders or other printing components; plates, cylinders and other printing components; plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished) :	
8442 30	– Machinery, apparatus and equipment :	
8442 30 10	– – Phototypesetting and composing machines	p/st
	– – Other :	
8442 30 91	– – – For typefounding and typesetting (for example, linotypes, monotypes, intertypes), with or without founding devices	p/st
8442 30 99	– – – Other	–
8442 40 00	– Parts of the foregoing machinery, apparatus or equipment	–
8442 50	– Plates, cylinders and other printing components; plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished) :	
8442 50 20	– – With printing image	–
8442 50 80	– – Other	–
8443	Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof :	
	– Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442 :	
8443 11 00	– – Offset printing machinery, reel fed	p/st
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)	p/st
8443 13	– – Other offset printing machinery :	
	– – – Sheet fed :	
8443 13 10	– – – – Used	p/st
	– – – – New, taking sheets of a size :	
8443 13 31	– – – – – Not exceeding 52 x 74 cm	p/st
8443 13 35	– – – – – Exceeding 52 x 74 cm but not exceeding 74 x 107 cm	p/st
8443 13 39	– – – – – Exceeding 74 x 107 cm	p/st
8443 13 90	– – – – Other	p/st
8443 14 00	– – Letterpress printing machinery, reel fed, excluding flexographic printing	p/st
8443 15 00	– – Letterpress printing machinery, other than reel fed, excluding flexographic printing .	p/st
8443 16 00	– – Flexographic printing machinery	p/st
8443 17 00	– – Gravure printing machinery	p/st
8443 19	– – Other :	
8443 19 20	– – – For printing textile materials	p/st
8443 19 40	– – – For use in the production of semiconductors ⁽¹⁾	p/st
8443 19 70	– – – Other	p/st

CN code	Description	Supplementary unit
8443 31	<ul style="list-style-type: none"> – Other printers, copying machines and facsimile machines, whether or not combined : – – 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 : 	
8443 31 10	<ul style="list-style-type: none"> – – – Machines performing the functions of copying and facsimile transmission, whether or not with a printing function, with a copying speed not exceeding 12 monochrome pages per minute – – – Other : 	p/st
8443 31 91	<ul style="list-style-type: none"> – – – – Machines performing a copying function by scanning the original and printing the copies by means of an electrostatic print engine 	p/st
8443 31 99	<ul style="list-style-type: none"> – – – – Other 	p/st
8443 32	<ul style="list-style-type: none"> – – Other, capable of connecting to an automatic data-processing machine or to a network : 	
8443 32 10	<ul style="list-style-type: none"> – – – Printers 	p/st
8443 32 30	<ul style="list-style-type: none"> – – – Facsimile machines – – – Other : 	p/st
8443 32 91	<ul style="list-style-type: none"> – – – – Machines performing a copying function by scanning the original and printing the copies by means of an electrostatic print engine 	p/st
8443 32 93	<ul style="list-style-type: none"> – – – – Other machines performing a copying function incorporating an optical system 	p/st
8443 32 99	<ul style="list-style-type: none"> – – – – Other 	p/st
8443 39	<ul style="list-style-type: none"> – – Other : 	
8443 39 10	<ul style="list-style-type: none"> – – – Machines performing a copying function by scanning the original and printing the copies by means of an electrostatic print engine – – – Other copying machines : 	p/st
8443 39 31	<ul style="list-style-type: none"> – – – – Incorporating an optical system 	p/st
8443 39 39	<ul style="list-style-type: none"> – – – – Other 	p/st
8443 39 90	<ul style="list-style-type: none"> – – – Other 	p/st
8443 91	<ul style="list-style-type: none"> – – Parts and accessories : – – Parts and accessories of printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442 : 	
8443 91 10	<ul style="list-style-type: none"> – – – Of apparatus of subheading 84431940⁽¹⁾ – – – Other : 	–
8443 91 91	<ul style="list-style-type: none"> – – – – Of cast iron or cast steel 	–
8443 91 99	<ul style="list-style-type: none"> – – – – Other 	–
8443 99	<ul style="list-style-type: none"> – – Other : 	
8443 99 10	<ul style="list-style-type: none"> – – – Electronic assemblies 	–
8443 99 90	<ul style="list-style-type: none"> – – – Other 	–
8444 00	<ul style="list-style-type: none"> Machines for extruding, drawing, texturing or cutting man-made textile materials : 	
8444 00 10	<ul style="list-style-type: none"> – Machines for extruding 	p/st
8444 00 90	<ul style="list-style-type: none"> – Other 	p/st
8445	<ul style="list-style-type: none"> Machines for preparing textile fibres; spinning, doubling or twisting machines and other machinery for producing textile yarns; textile reeling or winding (including weft-winding) machines and machines for preparing textile yarns for use on the machines of heading 8446 or 8447 : 	
8445 11 00	<ul style="list-style-type: none"> – Machines for preparing textile fibres : – – Carding machines 	p/st
8445 12 00	<ul style="list-style-type: none"> – – Combing machines 	p/st
8445 13 00	<ul style="list-style-type: none"> – – Drawing or roving machines 	p/st
8445 19 00	<ul style="list-style-type: none"> – – Other 	p/st
8445 20 00	<ul style="list-style-type: none"> – Textile spinning machines 	p/st
8445 30	<ul style="list-style-type: none"> – Textile doubling or twisting machines : 	
8445 30 10	<ul style="list-style-type: none"> – – Textile doubling machines 	p/st
8445 30 90	<ul style="list-style-type: none"> – – Textile twisting machines 	p/st
8445 40 00	<ul style="list-style-type: none"> – Textile winding (including weft-winding) or reeling machines 	p/st
8445 90 00	<ul style="list-style-type: none"> – Other 	p/st

CN code	Description	Supplementary unit
8446	Weaving machines (looms) :	
8446 10 00	– For weaving fabrics of a width not exceeding 30 cm	p/st
	– For weaving fabrics of a width exceeding 30 cm, shuttle type :	
8446 21 00	– – Power looms	p/st
8446 29 00	– – Other	p/st
8446 30 00	– For weaving fabrics of a width exceeding 30 cm, shuttleless type	p/st
8447	Knitting machines, stitch–bonding machines and machines for making gimped yarn, tulle, lace, embroidery, trimmings, braid or net and machines for tufting :	
	– Circular knitting machines :	
8447 11 00	– – With cylinder diameter not exceeding 165 mm	p/st
8447 12 00	– – With cylinder diameter exceeding 165 mm	p/st
8447 20	– Flat knitting machines; stitch–bonding machines :	
8447 20 20	– – Warp knitting machines (including Raschel type); stitch–bonding machines	p/st
8447 20 80	– – Other	p/st
8447 90 00	– Other	p/st
8448	Auxiliary machinery for use with machines of heading 8444, 8445, 8446 or 8447 (for example, 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 (for example, spindles and spindle flyers, card clothing, combs, extruding nipples, shuttles, healds and heald–frames, hosiery needles) :	
	– Auxiliary machinery for machines of heading 8444, 8445, 8446 or 8447 :	
8448 11 00	– – Dobbies and jacquards; card–reducing, copying, punching or assembling machines for use therewith	–
8448 19 00	– – Other	–
8448 20 00	– Parts and accessories of machines of heading 8444 or of their auxiliary machinery	–
	– Parts and accessories of machines of heading 8445 or of their auxiliary machinery :	
8448 31 00	– – Card clothing	–
8448 32 00	– – Of machines for preparing textile fibres, other than card clothing	–
8448 33 00	– – Spindles, spindle flyers, spinning rings and ring travellers	–
8448 39 00	– – Other	–
	– Parts and accessories of weaving machines (looms) or of their auxiliary machinery :	
8448 42 00	– – Reeds for looms, healds and heald–frames	–
8448 49 00	– – Other	–
	– Parts and accessories of machines of heading 8447 or of their auxiliary machinery :	
8448 51	– – Sinkers, needles and other articles used in forming stitches :	
8448 51 10	– – – Sinkers	–
8448 51 90	– – – Other	–
8448 59 00	– – Other	–
8449 00 00	Machinery for the manufacture or finishing of felt or nonwovens in the piece or in shapes, including machinery for making felt hats; blocks for making hats	–
8450	Household or laundry–type washing machines, including machines which both wash and dry :	
	– Machines, each of a dry linen capacity not exceeding 10 kg :	
8450 11	– – Fully–automatic machines :	
	– – – Each of a dry linen capacity not exceeding 6 kg :	
8450 11 11	– – – – Front–loading machines	p/st
8450 11 19	– – – – Top–loading machines	p/st
8450 11 90	– – – Each of a dry linen capacity exceeding 6 kg but not exceeding 10 kg	p/st
8450 12 00	– – Other machines, with built–in centrifugal drier	p/st
8450 19 00	– – Other	p/st
8450 20 00	– Machines, each of a dry linen capacity exceeding 10 kg	p/st

CN code	Description	Supplementary unit
8450 90 00	– Parts	–
8451	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 :	
8451 10 00	– Dry-cleaning machines	–
	– Drying machines :	
8451 21 00	– – Each of a dry linen capacity not exceeding 10 kg	–
8451 29 00	– – Other	–
8451 30	– Ironing machines and presses (including fusing presses) :	
	– – Electrically heated, of a power :	
8451 30 10	– – – Not exceeding 2500 W	p/st
8451 30 30	– – – Exceeding 2500 W	p/st
8451 30 80	– – Other	p/st
8451 40 00	– Washing, bleaching or dyeing machines	–
8451 50 00	– Machines for reeling, unreeling, folding, cutting or pinking textile fabrics	–
8451 80	– Other machinery :	
8451 80 10	– – Machines used in the manufacture of linoleum or other floor coverings for applying the paste to the base fabric or other support	–
8451 80 30	– – Machines for dressing or finishing	–
8451 80 80	– – Other	–
8451 90 00	– Parts	–
8452	Sewing machines, other than book-sewing machines of heading 8440; furniture, bases and covers specially designed for sewing machines; sewing machine needles :	
8452 10	– Sewing machines of the household type :	
	– – Sewing machines (lock-stitch only), with heads of a weight not exceeding 16 kg without motor or 17 kg including the motor; sewing machine heads (lock-stitch only), of a weight not exceeding 16 kg without motor or 17 kg including the motor :	
8452 10 11	– – – Sewing machines having a value (not including frames, tables or furniture) of more than € 65 each	p/st
8452 10 19	– – – Other	p/st
8452 10 90	– – Other sewing machines and other sewing machine heads	p/st
	– Other sewing machines :	
8452 21 00	– – Automatic units	p/st
8452 29 00	– – Other	p/st
8452 30	– Sewing machine needles :	
8452 30 10	– – With single flat shank	1 000 p/st
8452 30 90	– – Other	1 000 p/st
8452 40 00	– Furniture, bases and covers for sewing machines and parts thereof	–
8452 90 00	– Other parts of sewing machines	–
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, other than sewing machines :	
8453 10 00	– Machinery for preparing, tanning or working hides, skins or leather	–
8453 20 00	– Machinery for making or repairing footwear	–
8453 80 00	– Other machinery	–
8453 90 00	– Parts	–
8454	Converters, ladles, ingot moulds and casting machines, of a kind used in metallurgy or in metal foundries :	
8454 10 00	– Converters	–
8454 20 00	– Ingot moulds and ladles	–

CN code	Description	Supplementary unit
8454 30	– Casting machines :	
8454 30 10	– – For casting under pressure	–
8454 30 90	– – Other	–
8454 90 00	– Parts	–
8455	Metal-rolling mills and rolls therefor :	
8455 10 00	– Tube mills	–
	– Other rolling mills :	
8455 21 00	– – Hot or combination hot and cold	–
8455 22 00	– – Cold	–
8455 30	– Rolls for rolling mills :	
8455 30 10	– – Of cast iron	–
	– – Of open-die forged steel :	
8455 30 31	– – – Hot-rolling work-rolls; hot-rolling and cold-rolling back-up rolls	–
8455 30 39	– – – Cold-rolling work-rolls	–
8455 30 90	– – Other	–
8455 90 00	– Other parts	–
8456	Machine tools for working any material by removal of material, by laser or other light or photon beam, ultrasonic, electrodischarge, electrochemical, electron beam, ionic-beam or plasma arc processes :	
8456 10 00	– Operated by laser or other light or photon beam processes	p/st
8456 20 00	– Operated by ultrasonic processes	p/st
8456 30	– Operated by electrodischarge processes :	
	– – Numerically controlled :	
8456 30 11	– – – Wire-cut	p/st
8456 30 19	– – – Other	p/st
8456 30 90	– – Other	p/st
8456 90 00	– Other	p/st
8457	Machining centres, unit construction machines (single station) and multi-station transfer machines, for working metal :	
8457 10	– Machining centres :	
8457 10 10	– – Horizontal	p/st
8457 10 90	– – Other	p/st
8457 20 00	– Unit construction machines (single station)	p/st
8457 30	– Multi-station transfer machines :	
8457 30 10	– – Numerically controlled	p/st
8457 30 90	– – Other	p/st
8458	Lathes (including turning centres) for removing metal :	
	– Horizontal lathes :	
8458 11	– – Numerically controlled :	
8458 11 20	– – – Turning centres	p/st
	– – – Automatic lathes :	
8458 11 41	– – – – Single spindle	p/st
8458 11 49	– – – – Multi-spindle	p/st
8458 11 80	– – – Other	p/st
8458 19 00	– – Other	p/st
	– Other lathes :	
8458 91	– – Numerically controlled :	
8458 91 20	– – – Turning centres	p/st
8458 91 80	– – – Other	p/st
8458 99 00	– – Other	p/st

CN code	Description	Supplementary unit
8459	Machine tools (including way-type unit head machines) for drilling, boring, milling, threading or tapping by removing metal, other than lathes (including turning centres) of heading 8458 :	
8459 10 00	– Way-type unit head machines	p/st
	– Other drilling machines :	
8459 21 00	– – Numerically controlled	p/st
8459 29 00	– – Other	p/st
	– Other boring-milling machines :	
8459 31 00	– – Numerically controlled	p/st
8459 39 00	– – Other	p/st
8459 40	– Other boring machines :	
8459 40 10	– – Numerically controlled	p/st
8459 40 90	– – Other	p/st
	– Milling machines, knee-type :	
8459 51 00	– – Numerically controlled	p/st
8459 59 00	– – Other	p/st
	– Other milling machines :	
8459 61	– – Numerically controlled :	
8459 61 10	– – – Tool milling machines	p/st
8459 61 90	– – – Other	p/st
8459 69	– – Other :	
8459 69 10	– – – Tool milling machines	p/st
8459 69 90	– – – Other	p/st
8459 70 00	– Other threading or tapping machines	p/st
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, other than gear cutting, gear grinding or gear finishing machines of heading 8461 :	
	– Flat-surface grinding machines, in which the positioning in any one axis can be set up to an accuracy of at least 0,01 mm :	
8460 11 00	– – Numerically controlled	p/st
8460 19 00	– – Other	p/st
	– Other grinding machines, in which the positioning in any one axis can be set up to an accuracy of at least 0,01 mm :	
8460 21	– – Numerically controlled :	
	– – – For cylindrical surfaces :	
8460 21 11	– – – – Internal cylindrical grinding machines	p/st
8460 21 15	– – – – Centreless grinding machines	p/st
8460 21 19	– – – – Other	p/st
8460 21 90	– – – Other	p/st
8460 29	– – Other :	
8460 29 10	– – – For cylindrical surfaces	p/st
8460 29 90	– – – Other	p/st
	– Sharpening (tool or cutter grinding) machines :	
8460 31 00	– – Numerically controlled	p/st
8460 39 00	– – Other	p/st
8460 40	– Honing or lapping machines :	
8460 40 10	– – Numerically controlled	p/st
8460 40 90	– – Other	p/st
8460 90	– Other :	
8460 90 10	– – Fitted with a micrometric adjusting system, in which the positioning in any one axis can be set up to an accuracy of at least 0,01 mm	p/st
8460 90 90	– – Other	p/st

CN code	Description	Supplementary unit
8461	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 cermet, not elsewhere specified or included :	
8461 20 00	– Shaping or slotting machines	p/st
8461 30	– Broaching machines :	
8461 30 10	– – Numerically controlled	p/st
8461 30 90	– – Other	p/st
8461 40	– Gear-cutting, gear-grinding or gear-finishing machines :	
	– – Gear-cutting machines (including abrasive gear-cutting machines) :	
	– – – For cutting cylindrical gears :	
8461 40 11	– – – – Numerically controlled	p/st
8461 40 19	– – – – Other	p/st
	– – – For cutting other gears :	
8461 40 31	– – – – Numerically controlled	p/st
8461 40 39	– – – – Other	p/st
	– – Gear-finishing machines :	
	– – – Fitted with a micrometric adjusting system, in which the positioning in any one axis can be set up to an accuracy of at least 0,01 mm :	
8461 40 71	– – – – Numerically controlled	p/st
8461 40 79	– – – – Other	p/st
8461 40 90	– – – Other	p/st
8461 50	– Sawing or cutting-off machines :	
	– – Sawing machines :	
8461 50 11	– – – Circular saws	p/st
8461 50 19	– – – Other	p/st
8461 50 90	– – Cutting-off machines	p/st
8461 90 00	– Other	p/st
8462	Machine tools (including presses) for working metal by forging, hammering or die-stamping; machine tools (including presses) for working metal by bending, folding, straightening, flattening, shearing, punching or notching; presses for working metal or metal carbides, not specified above :	
8462 10	– Forging or die-stamping machines (including presses) and hammers :	
8462 10 10	– – Numerically controlled	p/st
8462 10 90	– – Other	p/st
	– Bending, folding, straightening or flattening machines (including presses) :	
8462 21	– – Numerically controlled :	
8462 21 10	– – – For working flat products	p/st
8462 21 80	– – – Other	p/st
8462 29	– – Other :	
8462 29 10	– – – For working flat products	p/st
	– – – Other :	
8462 29 91	– – – – Hydraulic	p/st
8462 29 98	– – – – Other	p/st
	– Shearing machines (including presses), other than combined punching and shearing machines :	
8462 31 00	– – Numerically controlled	p/st
8462 39	– – Other :	
8462 39 10	– – – For working flat products	p/st
	– – – Other :	
8462 39 91	– – – – Hydraulic	p/st
8462 39 99	– – – – Other	p/st

CN code	Description	Supplementary unit
	– Punching or notching machines (including presses), including combined punching and shearing machines :	
8462 41	– – Numerically controlled :	
8462 41 10	– – – For working flat products	p/st
8462 41 90	– – – Other	p/st
8462 49	– – Other :	
8462 49 10	– – – For working flat products	p/st
8462 49 90	– – – Other	p/st
	– Other :	
8462 91	– – Hydraulic presses :	
8462 91 20	– – – Numerically controlled	p/st
8462 91 80	– – – Other	p/st
8462 99	– – Other :	
8462 99 20	– – – Numerically controlled	p/st
8462 99 80	– – – Other	p/st
8463	Other machine tools for working metal or cermets, without removing material :	
8463 10	– Drawbenches for bars, tubes, profiles, wire or the like :	
8463 10 10	– – Drawbenches for wire	p/st
8463 10 90	– – Other	p/st
8463 20 00	– Thread-rolling machines	p/st
8463 30 00	– Machines for working wire	p/st
8463 90 00	– Other	p/st
8464	Machine tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass :	
8464 10 00	– Sawing machines	p/st
8464 20	– Grinding or polishing machines :	
	– – For working glass :	
8464 20 11	– – – Optical glass	p/st
8464 20 19	– – – Other	–
8464 20 80	– – Other	–
8464 90 00	– Other	–
8465	Machine tools (including machines for nailing, stapling, glueing or otherwise assembling) for working wood, cork, bone, hard rubber, hard plastics or similar hard materials :	
8465 10	– Machines which can carry out different types of machining operations without tool change between such operations :	
8465 10 10	– – With manual transfer of workpiece between each operation	p/st
8465 10 90	– – With automatic transfer of workpiece between each operation	p/st
	– Other :	
8465 91	– – Sawing machines :	
8465 91 10	– – – Bandsaws	p/st
8465 91 20	– – – Circular saws	p/st
8465 91 90	– – – Other	p/st
8465 92 00	– – Planing, milling or moulding (by cutting) machines	p/st
8465 93 00	– – Grinding, sanding or polishing machines	p/st
8465 94 00	– – Bending or assembling machines	p/st
8465 95 00	– – Drilling or morticing machines	p/st
8465 96 00	– – Splitting, slicing or paring machines	p/st
8465 99 00	– – Other	p/st

CN code	Description	Supplementary unit
8466	Parts and accessories suitable for use solely or principally with the machines of headings 8456 to 8465, including work or tool holders, self-opening dieheads, dividing heads and other special attachments for machine tools; tool holders for any type of tool for working in the hand :	
8466 10	– Tool holders and self-opening dieheads :	
	– – Tool holders :	
8466 10 20	– – – Arbors, collets and sleeves	–
	– – – Other :	
8466 10 31	– – – – For lathes	–
8466 10 38	– – – – Other	–
8466 10 80	– – Self-opening dieheads	–
8466 20	– Work holders :	
8466 20 20	– – Jigs and fixtures for specific applications; sets of standard jig and fixture components	–
	– – Other :	
8466 20 91	– – – For lathes	–
8466 20 98	– – – Other	–
8466 30 00	– Dividing heads and other special attachments for machine tools	–
	– Other :	
8466 91	– – For machines of heading 8464 :	
8466 91 20	– – – Of cast iron or cast steel	–
8466 91 95	– – – Other	–
8466 92	– – For machines of heading 8465 :	
8466 92 20	– – – Of cast iron or cast steel	–
8466 92 80	– – – Other	–
8466 93 00	– – For machines of headings 8456 to 8461	–
8466 94 00	– – For machines of heading 8462 or 8463	–
8467	Tools for working in the hand, pneumatic, hydraulic or with self-contained electric or non-electric motor :	
	– Pneumatic :	
8467 11	– – Rotary type (including combined rotary-percussion) :	
8467 11 10	– – – Metalworking	–
8467 11 90	– – – Other	–
8467 19 00	– – Other	–
	– With self-contained electric motor :	
8467 21	– – Drills of all kinds :	
8467 21 10	– – – Capable of operation without an external source of power	p/st
	– – – Other :	
8467 21 91	– – – – Electropneumatic	p/st
8467 21 99	– – – – Other	p/st
8467 22	– – Saws :	
8467 22 10	– – – Chainsaws	p/st
8467 22 30	– – – Circular saws	p/st
8467 22 90	– – – Other	p/st
8467 29	– – Other :	
8467 29 10	– – – Of a kind used for working textile materials	–
	– – – Other :	
8467 29 30	– – – – Capable of operation without an external source of power	p/st
	– – – – Other :	
	– – – – Grinders and sanders :	
8467 29 51	– – – – – Angle grinders	p/st
8467 29 53	– – – – – Belt sanders	p/st
8467 29 59	– – – – – Other	p/st
8467 29 70	– – – – – Planers	p/st

CN code	Description	Supplementary unit
8467 29 80	– – – – Hedge trimmers and lawn edge cutters	p/st
8467 29 90	– – – – Other	p/st
	– Other tools :	
8467 81 00	– – Chainsaws	p/st
8467 89 00	– – Other	–
	– Parts :	
8467 91 00	– – Of chainsaws	–
8467 92 00	– – Of pneumatic tools	–
8467 99 00	– – Other	–
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 :	
8468 10 00	– Hand-held blow pipes	–
8468 20 00	– Other gas-operated machinery and apparatus	–
8468 80 00	– Other machinery and apparatus	–
8468 90 00	– Parts	–
8469 00	Typewriters other than printers of heading 8443; word-processing machines :	
8469 00 10	– Word-processing machines	p/st
	– Other :	
8469 00 91	– – Electric	p/st
8469 00 99	– – Other	p/st
8470	Calculating machines and pocket-size data-recording, reproducing and displaying machines with calculating functions; accounting machines, postage-franking machines, ticket-issuing machines and similar machines, incorporating a calculating device; cash registers :	
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	p/st
	– Other electronic calculating machines :	
8470 21 00	– – Incorporating a printing device	p/st
8470 29 00	– – Other	p/st
8470 30 00	– Other calculating machines	p/st
8470 50 00	– Cash registers	p/st
8470 90 00	– Other	p/st
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 :	
8471 30 00	– Portable automatic data-processing machines, weighing not more than 10 kg, consisting of at least a central processing unit, a keyboard and a display	p/st
	– Other automatic data-processing machines :	
8471 41 00	– – Comprising in the same housing at least a central processing unit and an input and output unit, whether or not combined	p/st
8471 49 00	– – Other, presented in the form of systems	p/st
8471 50 00	– Processing units other than those of subheading 847141 or 847149, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units	p/st
8471 60	– Input or output units, whether or not containing storage units in the same housing :	
8471 60 60	– – Keyboards	p/st
8471 60 70	– – Other	p/st

CN code	Description	Supplementary unit
8471 70	– Storage units :	
8471 70 20	– – Central storage units	p/st
	– – Other :	
	– – – Disk storage units :	
8471 70 30	– – – – Optical, including magneto-optical	p/st
	– – – – Other :	
8471 70 50	– – – – – Hard disk drives	p/st
8471 70 70	– – – – – Other	p/st
8471 70 80	– – – Magnetic tape storage units	p/st
8471 70 98	– – – Other	p/st
8471 80 00	– Other units of automatic data-processing machines	p/st
8471 90 00	– Other	p/st
8472	Other office machines (for example, hectograph or stencil duplicating machines, addressing machines, automatic banknote dispensers, coin-sorting machines, coin-counting or -wrapping machines, pencil-sharpening machines, perforating or stapling machines) :	
8472 10 00	– Duplicating machines	p/st
8472 30 00	– 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	p/st
8472 90	– Other :	
8472 90 10	– – Coin-sorting, coin-counting or coin-wrapping machines	p/st
8472 90 30	– – Automatic teller machines	p/st
8472 90 70	– – Other	–
8473	Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines of headings 8469 to 8472 :	
8473 10	– Parts and accessories of the machines of heading 8469 :	
	– – Electronic assemblies :	
8473 10 11	– – – Of machines of subheading 84690010	–
8473 10 19	– – – Other	–
8473 10 90	– – Other	–
	– Parts and accessories of the machines of heading 8470 :	
8473 21	– – Of the electronic calculating machines of subheading 847010, 847021 or 847029 :	
8473 21 10	– – – Electronic assemblies	–
8473 21 90	– – – Other	–
8473 29	– – Other :	
8473 29 10	– – – Electronic assemblies	–
8473 29 90	– – – Other	–
8473 30	– Parts and accessories of the machines of heading 8471 :	
8473 30 20	– – Electronic assemblies	–
8473 30 80	– – Other	–
8473 40	– Parts and accessories of the machines of heading 8472 :	
	– – Electronic assemblies :	
8473 40 11	– – – Of machines of subheading 84729030	–
8473 40 18	– – – Other	–
8473 40 80	– – Other	–
8473 50	– Parts and accessories equally suitable for use with machines of two or more of the headings 8469 to 8472 :	
8473 50 20	– – Electronic assemblies	–
8473 50 80	– – Other	–

CN code	Description	Supplementary unit
8474	Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid (including 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 :	
8474 10 00	– Sorting, screening, separating or washing machines	–
8474 20 00	– Crushing or grinding machines	–
8474 31 00	– Mixing or kneading machines :	
8474 32 00	– – Concrete or mortar mixers	–
8474 39 00	– – Machines for mixing mineral substances with bitumen	–
8474 80	– – Other	–
8474 80 10	– Other machinery :	
8474 80 90	– – Machinery for agglomerating, shaping or moulding ceramic paste	–
8474 90	– – Other	–
8474 90 10	– Parts :	
8474 90 90	– – Of cast iron or cast steel	–
8474 90 90	– – Other	–
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 :	
8475 10 00	– Machines for assembling electric or electronic lamps, tubes or valves or flashbulbs, in glass envelopes	–
8475 21 00	– Machines for manufacturing or hot working glass or glassware :	
8475 29 00	– – Machines for making optical fibres and preforms thereof	–
8475 90 00	– – Other	–
8475 90 00	– Parts	–
8476	Automatic goods-vending machines (for example, postage stamp, cigarette, food or beverage machines), including money-changing machines :	
8476 21 00	– Automatic beverage-vending machines :	
8476 29 00	– – Incorporating heating or refrigerating devices	p/st
8476 81 00	– – Other	p/st
8476 89 00	– Other machines :	
8476 90 00	– – Incorporating heating or refrigerating devices	p/st
8476 90 00	– – Other	p/st
8476 90 00	– Parts	–
8477	Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter :	
8477 10 00	– Injection-moulding machines	p/st
8477 20 00	– Extruders	p/st
8477 30 00	– Blow-moulding machines	p/st
8477 40 00	– Vacuum-moulding machines and other thermoforming machines	p/st
8477 51 00	– Other machinery for moulding or otherwise forming :	
8477 59	– – For moulding or retreading pneumatic tyres or for moulding or otherwise forming inner tubes	p/st
8477 59 10	– – Other :	
8477 59 80	– – – Presses	p/st
8477 80	– – – Other	p/st
8477 80 11	– Other machinery :	
8477 80 19	– – Machines for the manufacture of foam products :	
8477 80 11	– – – Machines for processing reactive resins	p/st
8477 80 19	– – – Other	p/st

CN code	Description	Supplementary unit
	– – Other :	
8477 80 91	– – – Size reduction equipment	p/st
8477 80 93	– – – Mixers, kneaders and agitators	p/st
8477 80 95	– – – Cutting, splitting and peeling machines	p/st
8477 80 99	– – – Other	–
8477 90	– Parts :	
8477 90 10	– – Of cast iron or cast steel	–
8477 90 80	– – Other	–
8478	Machinery for preparing or making up tobacco, not specified or included elsewhere in this chapter :	
8478 10 00	– Machinery	–
8478 90 00	– Parts	–
8479	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter :	
8479 10 00	– Machinery for public works, building or the like	–
8479 20 00	– Machinery for the extraction or preparation of animal or fixed vegetable fats or oils ...	–
8479 30	– 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 :	
8479 30 10	– – Presses	–
8479 30 90	– – Other	–
8479 40 00	– Rope or cable-making machines	p/st
8479 50 00	– Industrial robots, not elsewhere specified or included	–
8479 60 00	– Evaporative air coolers	–
	– Other machines and mechanical appliances :	
8479 81 00	– – For treating metal, including electric wire coil-winders	–
8479 82 00	– – Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines	–
8479 89	– – Other :	
8479 89 30	– – – Mobile hydraulic-powered mine roof supports	–
8479 89 60	– – – Central greasing systems	–
8479 89 97	– – – Other	–
8479 90	– Parts :	
8479 90 20	– – Of cast iron or cast steel	–
8479 90 80	– – Other	–
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 :	
8480 10 00	– Moulding boxes for metal foundry	–
8480 20 00	– Mould bases	–
8480 30	– Moulding patterns :	
8480 30 10	– – Of wood	–
8480 30 90	– – Other	–
	– Moulds for metal or metal carbides :	
8480 41 00	– – Injection or compression types	–
8480 49 00	– – Other	–
8480 50 00	– Moulds for glass	–
8480 60 00	– Moulds for mineral materials	–
	– Moulds for rubber or plastics :	
8480 71 00	– – Injection or compression types	–
8480 79 00	– – Other	–

CN code	Description	Supplementary unit
8481	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves :	
8481 10	– Pressure-reducing valves :	
8481 10 05	– – Combined with filters or lubricators	–
	– – Other :	
8481 10 19	– – – Of cast iron or steel	–
8481 10 99	– – – Other	–
8481 20	– Valves for oleohydraulic or pneumatic transmissions :	
8481 20 10	– – Valves for the control of oleohydraulic power transmission	–
8481 20 90	– – Valves for the control of pneumatic power transmission	–
8481 30	– Check (non-return) valves :	
8481 30 91	– – Of cast iron or steel	–
8481 30 99	– – Other	–
8481 40	– Safety or relief valves :	
8481 40 10	– – Of cast iron or steel	–
8481 40 90	– – Other	–
8481 80	– Other appliances :	
	– – Taps, cocks and valves for sinks, washbasins, bidets, water cisterns, baths and similar fixtures :	
8481 80 11	– – – Mixing valves	–
8481 80 19	– – – Other	–
	– – Central heating radiator valves :	
8481 80 31	– – – Thermostatic valves	–
8481 80 39	– – – Other	–
8481 80 40	– – Valves for pneumatic tyres and inner tubes	–
	– – Other :	
	– – – Process control valves :	
8481 80 51	– – – – Temperature regulators	–
8481 80 59	– – – – Other	–
	– – – – Other :	
	– – – – Gate valves :	
8481 80 61	– – – – – Of cast iron	–
8481 80 63	– – – – – Of steel	–
8481 80 69	– – – – – Other	–
	– – – – – Globe valves :	
8481 80 71	– – – – – Of cast iron	–
8481 80 73	– – – – – Of steel	–
8481 80 79	– – – – – Other	–
8481 80 81	– – – – – Ball and plug valves	–
8481 80 85	– – – – – Butterfly valves	–
8481 80 87	– – – – – Diaphragm valves	–
8481 80 99	– – – – – Other	–
8481 90 00	– Parts	–
8482	Ball or roller bearings :	
8482 10	– Ball bearings :	
8482 10 10	– – With greatest external diameter not exceeding 30 mm	–
8482 10 90	– – Other	–
8482 20 00	– Tapered roller bearings, including cone and tapered roller assemblies	–
8482 30 00	– Spherical roller bearings	–
8482 40 00	– Needle roller bearings	–
8482 50 00	– Other cylindrical roller bearings	–
8482 80 00	– Other, including combined ball/roller bearings	–

CN code	Description	Supplementary unit
	– Parts :	
8482 91	– – Balls, needles and rollers :	
8482 91 10	– – – Tapered rollers	–
8482 91 90	– – – Other	–
8482 99 00	– – Other	–
8483	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including pulley blocks; clutches and shaft couplings (including universal joints) :	
8483 10	– Transmission shafts (including cam shafts and crank shafts) and cranks :	
	– – Cranks and crank shafts :	
8483 10 21	– – – Of cast iron or cast steel	–
8483 10 25	– – – Of open–die forged steel	–
8483 10 29	– – – Other	–
8483 10 50	– – Articulated shafts	–
8483 10 95	– – Other	–
8483 20 00	– Bearing housings, incorporating ball or roller bearings	–
8483 30	– Bearing housings, not incorporating ball or roller bearings; plain shaft bearings :	
	– – Bearing housings :	
8483 30 32	– – – For ball or roller bearings	–
8483 30 38	– – – Other	–
8483 30 80	– – Plain shaft bearings	–
8483 40	– Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball or roller screws; gear boxes and other speed changers, including torque converters :	
	– – Gears and gearing (other than friction gears) :	
8483 40 21	– – – Spur and helical	–
8483 40 23	– – – Bevel and bevel/spur	–
8483 40 25	– – – Worm gear	–
8483 40 29	– – – Other	–
8483 40 30	– – Ball or roller screws	–
	– – Gear boxes and other speed changers :	
8483 40 51	– – – Gear boxes	–
8483 40 59	– – – Other	–
8483 40 90	– – Other	–
8483 50	– Flywheels and pulleys, including pulley blocks :	
8483 50 20	– – Of cast iron or cast steel	–
8483 50 80	– – Other	–
8483 60	– Clutches and shaft couplings (including universal joints) :	
8483 60 20	– – Of cast iron or cast steel	–
8483 60 80	– – Other	–
8483 90	– Toothed wheels, chain sprockets and other transmission elements presented separately; parts :	
8483 90 20	– – Parts of bearing housings	–
	– – Other :	
8483 90 81	– – – Of cast iron or cast steel	–
8483 90 89	– – – Other	–
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 :	
8484 10 00	– Gaskets and similar joints of metal sheeting combined with other material or of two or more layers of metal	–
8484 20 00	– Mechanical seals	–
8484 90 00	– Other	–

CN code	Description	Supplementary unit
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 9(C) to this chapter; parts and accessories :	
8486 10 00	– 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 20 10	– – Machine–tools operated by ultrasonic processes	p/st
8486 20 90	– – Other	–
8486 30	– Machines and apparatus for the manufacture of flat panel displays :	
8486 30 10	– – Apparatus for chemical vapour deposition on liquid crystal devices (LCD) substrates	–
8486 30 30	– – Apparatus for dry–etching patterns on liquid crystal devices (LCD) substrates	–
8486 30 50	– – Apparatus for physical deposition by sputtering on liquid crystal devices (LCD) substrates	–
8486 30 90	– – Other	–
8486 40 00	– Machines and apparatus specified in note 9(C) to this chapter	–
8486 90	– Parts and accessories :	
8486 90 10	– – Tool holders and self–opening dieheads; workholders	–
8486 90 20	– – – Parts of spinners for coating photographic emulsions on liquid crystal devices (LCD) substrates	–
8486 90 30	– – – Parts of deflash machines for cleaning the metal leads of semiconductor packages prior to the electroplating process	–
8486 90 40	– – – Parts of apparatus for physical deposition by sputtering on liquid crystal devices (LCD) substrates	–
8486 90 50	– – – Parts and accessories for apparatus for dry–etching patterns on liquid crystal devices (LCD) substrates	–
8486 90 60	– – – Parts and accessories for apparatus for chemical vapour deposition on liquid crystal devices (LCD) substrates	–
8486 90 70	– – – Parts and accessories for machine–tools operated by ultrasonic processes	–
8486 90 90	– – – Other	–
8487	Machinery parts, not containing electrical connectors, insulators, coils, contacts or other electrical features, not specified or included elsewhere in this chapter :	
8487 10	– Ships' or boats' propellers and blades therefor :	
8487 10 10	– – Of bronze	p/st
8487 10 90	– – Other	p/st
8487 90	– Other :	
8487 90 10	– – Of non–malleable cast iron	–
8487 90 30	– – Of malleable cast iron	–
8487 90 51	– – – Of cast steel	–
8487 90 53	– – – Of open–die forged iron or steel	–
8487 90 55	– – – Of closed–die forged iron or steel	–
8487 90 59	– – – Other	–
8487 90 90	– – Other	–

(1) Entry under this subheading is subject to the conditions laid down in the relevant Community provisions (see Articles 291 to 300 of Commission Regulation (EEC) No 2454/93 (OJ L 253, 11.10.1993, p. 1)).

CHAPTER 85

ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES**Notes**

1. This chapter does not cover:
 - (a) electrically warmed blankets, bed pads, foot-muffs or the like; electrically warmed clothing, footwear or ear pads or other electrically warmed articles worn on or about the person;
 - (b) articles of glass of heading 7011;
 - (c) machines and apparatus of heading 8486;
 - (d) vacuum apparatus of a kind used in medical, surgical, dental or veterinary purposes (Chapter 90); or
 - (e) electrically heated furniture of Chapter 94.
2. Headings 8501 to 8504 do not apply to goods described in heading 8511, 8512, 8540, 8541 or 8542. However, metal tank mercury arc rectifiers remain classified in heading 8504.
3. Heading 8509 covers only the following electromechanical machines of the kind commonly used for domestic purposes:
 - (a) floor polishers, food grinders and mixers, and fruit or vegetable juice extractors, of any weight;
 - (b) other machines provided the weight of such machines does not exceed 20 kg. The heading does not, however, apply to fans or ventilating or recycling hoods incorporating a fan, whether or not fitted with filters (heading 8414), centrifugal clothes-dryers (heading 8421), dishwashing machines (heading 8422), household washing machines (heading 8450), roller or other ironing machines (heading 8420 or 8451), sewing machines (heading 8452), electric scissors (heading 8467) or to electrothermic appliances (heading 8516).
4. For the purposes of heading 8523:
 - (a) 'solid-state non-volatile storage devices' (for example, 'flash memory cards' or 'flash electronic storage cards') are storage devices with a connecting socket, comprising in the same housing one or more flash memories (for example, 'Flash E'2'PROM') in the form of integrated circuits mounted on a printed circuit board. They may include a controller in the form of an integrated circuit and discrete passive components, such as capacitors and resistors;
 - (b) the term 'smart cards' means cards which have embedded in them one or more electronic integrated circuits (a microprocessor, random access memory (RAM) or read-only memory (ROM)) in the form of chips. These cards may contain contacts, a magnetic stripe or an embedded antenna but do not contain any other active or passive circuit elements.
5. For the purposes of heading 8534, 'printed circuits' are circuits obtained by forming on an insulating base, by any printing process (for example, embossing, plating-up, etching) or by the 'film circuit' technique, conductor elements, contacts or other printed components (for example, inductances, resistors, capacitors) alone or interconnected according to a pre-established pattern, other than elements which can produce, rectify, modulate or amplify an electrical signal (for example, semiconductor elements). The expression 'printed circuits' does not cover circuits combined with elements other than those obtained during the printing process, nor does it cover individual, discrete resistors, capacitors or inductances. Printed circuits may, however, be fitted with non-printed connecting elements. Thin- or thick-film circuits comprising passive and active elements obtained during the same technological process are to be classified in heading 8542.
6. For the purpose of heading 8536, 'connectors for optical fibres, optical fibre bundles or cables' means connectors that simply mechanically align optical fibres end to end in a digital line system. They perform no other function, such as the amplification, regeneration or modification of a signal.
7. Heading 8537 does not include cordless infrared devices for the remote control of television receivers or other electrical equipment (heading 8543).
8. For the purposes of headings 8541 and 8542:
 - (a) 'Diodes, transistors and similar semiconductor devices' are semiconductor devices the operation of which depends on variations in resistivity on the application of an electric field.
 - (b) 'Electronic integrated circuits' are:

- (1) monolithic integrated circuits in which the circuit elements (diodes, transistors, resistors, capacitors, inductances, etc.) are created in the mass (essentially) and on the surface of a semiconductor or compound semiconductor material (for example, doped silicon, gallium arsenide, silicon germanium, indium phosphide) and are inseparably associated;
- (2) hybrid integrated circuits in which passive elements (resistors, capacitors, inductances, etc.), obtained by thin- or thick-film technology, and active elements (diodes, transistors, monolithic integrated circuits, etc.), obtained by semiconductor technology, are combined to all intents and purposes indivisibly, by interconnections or interconnecting cables, on a single insulating substrate (glass, ceramic, etc.). These circuits may also include discrete components;
- (3) multichip integrated circuits consisting of two or more interconnected monolithic integrated circuits combined to all intents and purposes indivisibly, whether or not on one or more insulating substrates, with or without leadframes, but with no other active or passive circuit elements.

For the classification of the articles defined in this note, headings 8541 and 8542 shall take precedence over any other heading in the nomenclature, except in the case of heading 8523, which might cover them by reference to, in particular, their function.

9. For the purposes of heading 8548, 'spent primary cells, spent primary batteries and spent electric accumulators' are those which are neither usable as such because of breakage, cutting-up, wear or other reasons, nor capable of being recharged.

Subheading note

1. Subheading 8527 12 covers only cassette-players with built-in amplifier, without built-in loudspeaker, capable of operating without an external source of electric power and the dimensions of which do not exceed 170 mm x 100 mm x 45 mm.

Additional notes

1. Subheadings 8519 20 10, 8519 30 00 and 8519 89 11 are to be taken not to apply to sound reproducing apparatus with laser reading system.
2. Subheading note 1 is applicable, mutatis mutandis, to subheadings 8519 81 15 and 8519 81 65.

CN code	Description	Supplementary unit
8501	Electric motors and generators (excluding generating sets) :	
8501 10	– Motors of an output not exceeding 37,5 W :	
8501 10 10	– – Synchronous motors of an output not exceeding 18 W	p/st
	– – Other :	
8501 10 91	– – – Universal AC/DC motors	p/st
8501 10 93	– – – AC motors	p/st
8501 10 99	– – – DC motors	p/st
8501 20 00	– Universal AC/DC motors of an output exceeding 37,5 W	p/st
	– Other DC motors; DC generators :	
8501 31 00	– – Of an output not exceeding 750 W	p/st
★ 8501 32 00	– – Of an output exceeding 750 W but not exceeding 75 kW	p/st
8501 33 00	– – Of an output exceeding 75 kW but not exceeding 375 kW	p/st
★ 8501 34 00	– – Of an output exceeding 375 kW	p/st
8501 40	– Other AC motors, single-phase :	
8501 40 20	– – Of an output not exceeding 750 W	p/st
8501 40 80	– – Of an output exceeding 750 W	p/st
	– Other AC motors, multi-phase :	
8501 51 00	– – Of an output not exceeding 750 W	p/st
8501 52	– – Of an output exceeding 750 W but not exceeding 75 kW :	
8501 52 20	– – – Of an output exceeding 750 W but not exceeding 7,5 kW	p/st
8501 52 30	– – – Of an output exceeding 7,5 kW but not exceeding 37 kW	p/st
8501 52 90	– – – Of an output exceeding 37 kW but not exceeding 75 kW	p/st
8501 53	– – Of an output exceeding 75 kW :	
8501 53 50	– – – Traction motors	p/st
	– – – Other, of an output :	
8501 53 81	– – – – Exceeding 75 kW but not exceeding 375 kW	p/st
8501 53 94	– – – – Exceeding 375 kW but not exceeding 750 kW	p/st

CN code	Description	Supplementary unit
8501 53 99	– – – Exceeding 750 kW	p/st
	– AC generators (alternators) :	
8501 61	– – Of an output not exceeding 75 kVA :	
8501 61 20	– – – Of an output not exceeding 7,5 kVA	p/st
8501 61 80	– – – Of an output exceeding 7,5 kVA but not exceeding 75 kVA	p/st
8501 62 00	– – Of an output exceeding 75 kVA but not exceeding 375 kVA	p/st
8501 63 00	– – Of an output exceeding 375 kVA but not exceeding 750 kVA	p/st
8501 64 00	– – Of an output exceeding 750 kVA	p/st
8502	Electric generating sets and rotary converters :	
	– Generating sets with compression-ignition internal combustion piston engines (diesel or semi-diesel engines) :	
8502 11	– – Of an output not exceeding 75 kVA :	
8502 11 20	– – – Of an output not exceeding 7,5 kVA	p/st
8502 11 80	– – – Of an output exceeding 7,5 kVA but not exceeding 75 kVA	p/st
8502 12 00	– – Of an output exceeding 75 kVA but not exceeding 375 kVA	p/st
8502 13	– – Of an output exceeding 375 kVA :	
8502 13 20	– – – Of an output exceeding 375 kVA but not exceeding 750 kVA	p/st
8502 13 40	– – – Of an output exceeding 750 kVA but not exceeding 2000 kVA	p/st
8502 13 80	– – – Of an output exceeding 2000 kVA	p/st
8502 20	– Generating sets with spark-ignition internal combustion piston engines :	
8502 20 20	– – Of an output not exceeding 7,5 kVA	p/st
8502 20 40	– – Of an output exceeding 7,5 kVA but not exceeding 375 kVA	p/st
8502 20 60	– – Of an output exceeding 375 kVA but not exceeding 750 kVA	p/st
8502 20 80	– – Of an output exceeding 750 kVA	p/st
	– Other generating sets :	
8502 31 00	– – Wind-powered	p/st
8502 39	– – Other :	
8502 39 20	– – – Turbo-generators	p/st
8502 39 80	– – – Other	p/st
8502 40 00	– Electric rotary converters	p/st
8503 00	Parts suitable for use solely or principally with the machines of heading 8501 or 8502 :	
8503 00 10	– Non-magnetic retaining rings	–
	– Other :	
8503 00 91	– – Of cast iron or cast steel	–
8503 00 99	– – Other	–
8504	Electrical transformers, static converters (for example, rectifiers) and inductors :	
8504 10	– Ballasts for discharge lamps or tubes :	
8504 10 20	– – Inductors, whether or not connected with a capacitor	p/st
8504 10 80	– – Other	p/st
	– Liquid dielectric transformers :	
8504 21 00	– – Having a power handling capacity not exceeding 650 kVA	p/st
8504 22	– – Having a power handling capacity exceeding 650 kVA but not exceeding 10000 kVA :	
8504 22 10	– – – Exceeding 650 kVA but not exceeding 1600 kVA	p/st
8504 22 90	– – – Exceeding 1600 kVA but not exceeding 10000 kVA	p/st
8504 23 00	– – Having a power handling capacity exceeding 10000 kVA	p/st
	– Other transformers :	
8504 31	– – Having a power handling capacity not exceeding 1 kVA :	
	– – – Measuring transformers :	
8504 31 21	– – – – For voltage measurement	p/st
8504 31 29	– – – – Other	p/st
8504 31 80	– – – Other	p/st
★ 8504 32 00	– – Having a power handling capacity exceeding 1 kVA but not exceeding 16 kVA	p/st

CN code	Description	Supplementary unit
8504 33 00	– – Having a power handling capacity exceeding 16 kVA but not exceeding 500 kVA	p/st
8504 34 00	– – Having a power handling capacity exceeding 500 kVA	p/st
8504 40	– Static converters :	
8504 40 30	– – Of a kind used with telecommunication apparatus, automatic data-processing machines and units thereof	p/st
	– – Other :	
8504 40 55	– – – Accumulator chargers	p/st
	– – – Other :	
★ 8504 40 82	– – – – Rectifiers	–
	– – – – Inverters :	
8504 40 84	– – – – – Having a power handling capacity not exceeding 7,5 kVA	–
8504 40 88	– – – – – Having a power handling capacity exceeding 7,5 kVA	–
8504 40 90	– – – – – Other	–
8504 50	– Other inductors :	
8504 50 20	– – Of a kind used with telecommunication apparatus and for power supplies for automatic data-processing machines and units thereof	–
8504 50 95	– – Other	–
8504 90	– Parts :	
	– – Of transformers and inductors :	
8504 90 05	– – – Electronic assemblies of machines of subheading 85045020	–
	– – – Other :	
8504 90 11	– – – – Ferrite cores	–
8504 90 18	– – – – Other	–
	– – Of static converters :	
8504 90 91	– – – Electronic assemblies of machines of subheading 85044030	–
8504 90 99	– – – Other	–
8505	Electromagnets; permanent magnets and articles intended to become permanent magnets after magnetisation; electromagnetic or permanent magnet chucks, clamps and similar holding devices; electromagnetic couplings, clutches and brakes; electromagnetic lifting heads :	
	– Permanent magnets and articles intended to become permanent magnets after magnetisation :	
8505 11 00	– – Of metal	–
8505 19	– – Other :	
8505 19 10	– – – Permanent magnets of agglomerated ferrite	–
8505 19 90	– – – Other	–
8505 20 00	– Electromagnetic couplings, clutches and brakes	–
8505 90	– Other, including parts :	
★ 8505 90 20	– – Electromagnets; electromagnetic or permanent magnet chucks, clamps and similar holding devices	–
8505 90 50	– – Electromagnetic lifting heads	–
8505 90 90	– – Parts	–
8506	Primary cells and primary batteries :	
8506 10	– Manganese dioxide :	
	– – Alkaline :	
8506 10 11	– – – Cylindrical cells	p/st
★ 8506 10 18	– – – Other	p/st
	– – Other :	
8506 10 91	– – – Cylindrical cells	p/st
★ 8506 10 98	– – – Other	p/st
★ 8506 30 00	– Mercuric oxide	p/st
★ 8506 40 00	– Silver oxide	p/st

CN code	Description	Supplementary unit
8506 50	– Lithium :	
8506 50 10	– – Cylindrical cells	p/st
8506 50 30	– – Button cells	p/st
8506 50 90	– – Other	p/st
★ 8506 60 00	– Air-zinc	p/st
8506 80	– Other primary cells and primary batteries :	
8506 80 05	– – Dry zinc-carbon batteries of a voltage of 5,5 V or more but not exceeding 6,5 V	p/st
★ 8506 80 80	– – Other	p/st
8506 90 00	– Parts	–
8507	Electric accumulators, including separators therefor, whether or not rectangular (including square) :	
8507 10	– Lead-acid, of a kind used for starting piston engines :	
★ 8507 10 20	– – Working with liquid electrolyte	p/st
★ 8507 10 80	– – Other	p/st
8507 20	– Other lead-acid accumulators :	
★ 8507 20 20	– – Working with liquid electrolyte	ce/el
★ 8507 20 80	– – Other	ce/el
8507 30	– Nickel-cadmium :	
8507 30 20	– – Hermetically sealed	p/st
★ 8507 30 80	– – Other	ce/el
8507 40 00	– Nickel-iron	p/st
8507 80	– Other accumulators :	
8507 80 20	– – Nickel-hydride	p/st
8507 80 30	– – Lithium-ion	p/st
8507 80 80	– – Other	p/st
8507 90	– Parts :	
8507 90 30	– – Separators	–
★ 8507 90 80	– – Other	–
8508	Vacuum cleaners :	
	– With self-contained electric motor :	
8508 11 00	– – Of a power not exceeding 1500 W and having a dust bag or other receptacle capacity not exceeding 20 l	p/st
8508 19 00	– – Other	p/st
8508 60 00	– Other vacuum cleaners	p/st
8508 70 00	– Parts	–
8509	Electromechanical domestic appliances, with self-contained electric motor, other than vacuum cleaners of heading 8508 :	
8509 40 00	– Food grinders and mixers; fruit or vegetable juice extractors	p/st
8509 80 00	– Other appliances	–
8509 90 00	– Parts	–
8510	Shavers, hair clippers and hair-removing appliances, with self-contained electric motor :	
8510 10 00	– Shavers	p/st
8510 20 00	– Hair clippers	p/st
8510 30 00	– Hair-removing appliances	p/st
8510 90 00	– Parts	–

CN code	Description	Supplementary unit
8511	Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (for example, ignition magnetos, magneto-dynamos, ignition coils, sparking plugs and glow plugs, starter motors); generators (for example, dynamos, alternators) and cut-outs of a kind used in conjunction with such engines :	
8511 10 00	– Sparking plugs	–
8511 20 00	– Ignition magnetos; magneto-dynamos; magnetic flywheels	–
8511 30 00	– Distributors; ignition coils	–
8511 40 00	– Starter motors and dual purpose starter-generators	–
8511 50 00	– Other generators	–
8511 80 00	– Other equipment	–
8511 90 00	– Parts	–
8512	Electrical lighting or signalling equipment (excluding articles of heading 8539), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles :	
8512 10 00	– Lighting or visual signalling equipment of a kind used on bicycles	–
8512 20 00	– Other lighting or visual signalling equipment	–
8512 30	– Sound signalling equipment :	
8512 30 10	– – Burglar alarms of a kind used for motor vehicles	p/st
8512 30 90	– – Other	–
8512 40 00	– Windscreen wipers, defrosters and demisters	–
8512 90	– Parts :	
8512 90 10	– – Of apparatus of subheading 85123010	–
8512 90 90	– – Other	–
8513	Portable electric lamps designed to function by their own source of energy (for example, dry batteries, accumulators, magnetos), other than lighting equipment of heading 8512 :	
8513 10 00	– Lamps	–
8513 90 00	– Parts	–
8514	Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss :	
8514 10	– Resistance heated furnaces and ovens :	
8514 10 10	– – Bakery and biscuit ovens	p/st
8514 10 80	– – Other	p/st
8514 20	– Furnaces and ovens functioning by induction or dielectric loss :	
8514 20 10	– – Induction furnaces and ovens	p/st
8514 20 80	– – Dielectric furnaces and ovens	p/st
★ 8514 30 00	– Other furnaces and ovens	p/st
8514 40 00	– Other equipment for the heat treatment of materials by induction or dielectric loss	p/st
8514 90 00	– Parts	–
8515	Electric (including electrically heated gas), laser or other light or photon beam, ultrasonic, electron beam, magnetic pulse or plasma arc soldering, brazing or welding machines and apparatus, whether or not capable of cutting; electric machines and apparatus for hot spraying of metals or cermets :	
	– Brazing or soldering machines and apparatus :	
8515 11 00	– – Soldering irons and guns	–
8515 19 00	– – Other	–
	– Machines and apparatus for resistance welding of metal :	
8515 21 00	– – Fully or partly automatic	–
★ 8515 29 00	– – Other	–

CN code	Description	Supplementary unit
	– Machines and apparatus for arc (including plasma arc) welding of metals :	
8515 31 00	– – Fully or partly automatic	–
8515 39	– – Other :	
	– – – For manual welding with coated electrodes, complete with welding or cutting devices, and consigned with :	
8515 39 13	– – – – Transformers	–
8515 39 18	– – – – Generators or rotary converters or static converters, rectifiers or rectifying apparatus	–
8515 39 90	– – – Other	–
8515 80	– Other machines and apparatus :	
★ 8515 80 10	– – For treating metals	p/st
8515 80 90	– – Other	p/st
8515 90 00	– Parts	–
8516	Electric instantaneous or storage water heaters and immersion heaters; electric space-heating apparatus and soil-heating apparatus; electrothermic hairdressing apparatus (for example, hairdryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545 :	
8516 10	– Electric instantaneous or storage water heaters and immersion heaters :	
8516 10 11	– – Instantaneous water heaters	p/st
★ 8516 10 80	– – Other	p/st
	– Electric space-heating apparatus and electric soil-heating apparatus :	
8516 21 00	– – Storage heating radiators	p/st
8516 29	– – Other :	
8516 29 10	– – – Liquid-filled radiators	p/st
8516 29 50	– – – Convection heaters	p/st
	– – – Other :	
8516 29 91	– – – – With built-in fan	p/st
8516 29 99	– – – – Other	p/st
	– Electrothermic hairdressing or hand-drying apparatus :	
★ 8516 31 00	– – Hairdryers	p/st
8516 32 00	– – Other hairdressing apparatus	–
8516 33 00	– – Hand-drying apparatus	p/st
★ 8516 40 00	– Electric smoothing irons	p/st
8516 50 00	– Microwave ovens	p/st
8516 60	– Other ovens; cookers, cooking plates, boiling rings; grillers and roasters :	
8516 60 10	– – Cookers (incorporating at least an oven and a hob)	p/st
★ 8516 60 50	– – Cooking plates, boiling rings and hobs	p/st
8516 60 70	– – Grillers and roasters	p/st
8516 60 80	– – Ovens for building in	p/st
8516 60 90	– – Other	p/st
	– Other electrothermic appliances :	
8516 71 00	– – Coffee or tea makers	p/st
8516 72 00	– – Toasters	p/st
8516 79	– – Other :	
8516 79 20	– – – Deep fat fryers	p/st
8516 79 70	– – – Other	p/st
8516 80	– Electric heating resistors :	
8516 80 20	– – Assembled with an insulated former	–
8516 80 80	– – Other	–
8516 90 00	– Parts	–

CN code	Description	Supplementary unit
8517	Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528 :	
	– Telephone sets, including telephones for cellular networks or for other wireless networks :	
8517 11 00	– – Line telephone sets with cordless handsets	p/st
8517 12 00	– – Telephones for cellular networks or for other wireless networks	p/st
8517 18 00	– – Other	–
	– Other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network) :	
8517 61 00	– – Base stations	p/st
8517 62 00	– – Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus	–
8517 69	– – Other :	
8517 69 10	– – – Videophones	p/st
8517 69 20	– – – Entry-phone systems	–
	– – – Reception apparatus for radio-telephony or radio-telegraphy :	
8517 69 31	– – – – Portable receivers for calling, alerting or paging	p/st
8517 69 39	– – – – Other	p/st
8517 69 90	– – – Other	–
8517 70	– Parts :	
	– – Aerials and aerial reflectors of all kinds; parts suitable for use therewith :	
8517 70 11	– – – Aerials for radio-telegraphic or radio-telephonic apparatus	–
8517 70 15	– – – Telescopic and whip-type aerials for portable apparatus or for apparatus for fitting in motor vehicles	–
8517 70 19	– – – Other	–
8517 70 90	– – Other	–
8518	Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets :	
8518 10	– Microphones and stands therefor :	
8518 10 30	– – Microphones having a frequency range of 300 Hz to 3,4 kHz, of a diameter not exceeding 10 mm and a height not exceeding 3 mm, of a kind used for telecommunications	–
8518 10 95	– – Other	–
	– Loudspeakers, whether or not mounted in their enclosures :	
8518 21 00	– – Single loudspeakers, mounted in their enclosures	p/st
8518 22 00	– – Multiple loudspeakers, mounted in the same enclosure	p/st
8518 29	– – Other :	
8518 29 30	– – – Loudspeakers having a frequency range of 300 Hz to 3,4 kHz, of a diameter not exceeding 50 mm, of a kind used for telecommunications	p/st
8518 29 95	– – – Other	p/st
8518 30	– Headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers :	
8518 30 20	– – Line telephone handsets	–
8518 30 95	– – Other	–
8518 40	– Audio-frequency electric amplifiers :	
8518 40 30	– – Telephonic and measurement amplifiers	–
★ 8518 40 80	– – Other	p/st
8518 50 00	– Electric sound amplifier sets	p/st
8518 90 00	– Parts	–

CN code	Description	Supplementary unit
8519	Sound recording or sound reproducing apparatus :	
8519 20	– Apparatus operated by coins, banknotes, bank cards, tokens or by other means of payment :	
8519 20 10	– – Coin- or disc-operated record-players	p/st
	– – Other :	
8519 20 91	– – – With laser reading system	p/st
8519 20 99	– – – Other	p/st
8519 30 00	– Turntables (record-decks)	p/st
8519 50 00	– Telephone answering machines	p/st
	– Other apparatus :	
8519 81	– – Using magnetic, optical or semiconductor media :	
	– – – Sound reproducing apparatus (including cassette-players), not incorporating a sound recording device :	
8519 81 11	– – – – Transcribing machines	p/st
	– – – – Other sound reproducing apparatus :	
8519 81 15	– – – – – Pocket-size cassette-players	p/st
	– – – – – Other, cassette-type :	
8519 81 21	– – – – – With an analogue and digital reading system	p/st
8519 81 25	– – – – – Other	p/st
	– – – – – Other :	
	– – – – – With laser reading system :	
8519 81 31	– – – – – – Of a kind used in motor vehicles, of a type using discs of a diameter not exceeding 6,5 cm	p/st
8519 81 35	– – – – – – Other	p/st
8519 81 45	– – – – – – Other	p/st
	– – – – Other apparatus :	
8519 81 51	– – – – – Dictating machines not capable of operating without an external source of power ...	p/st
	– – – – – Other magnetic tape recorders incorporating sound reproducing apparatus :	
	– – – – – – Cassette-type :	
	– – – – – – With built-in amplifier and one or more built-in loudspeakers :	
8519 81 55	– – – – – – – Capable of operating without an external source of power	p/st
8519 81 61	– – – – – – – Other	p/st
8519 81 65	– – – – – – – Pocket-size recorders	p/st
8519 81 75	– – – – – – – Other	p/st
	– – – – – – Other :	
8519 81 81	– – – – – – Using magnetic tapes on reels, allowing sound recording or reproduction either at a single speed of 19 cm per second or at several speeds if those comprise only 19 cm per second and lower speeds	p/st
8519 81 85	– – – – – – Other	p/st
8519 81 95	– – – – – Other	p/st
8519 89	– – Other :	
	– – – Sound reproducing apparatus, not incorporating a sound recording device :	
8519 89 11	– – – – Record-players, other than those of subheading 851920	p/st
8519 89 15	– – – – Transcribing machines	p/st
8519 89 19	– – – – Other	p/st
8519 89 90	– – – – Other	p/st
8521	Video recording or reproducing apparatus, whether or not incorporating a video tuner :	
8521 10	– Magnetic tape-type :	
8521 10 20	– – Using tape of a width not exceeding 1,3 cm and allowing recording or reproduction at a tape speed not exceeding 50 mm per second	p/st
8521 10 95	– – Other	p/st
8521 90 00	– Other	p/st

CN code	Description	Supplementary unit
8522	Parts and accessories suitable for use solely or principally with the apparatus of headings 8519 to 8521 :	
8522 10 00	– Pick-up cartridges	–
8522 90	– Other :	
8522 90 30	– – Styli; diamonds, sapphires and other precious or semi-precious stones (natural, synthetic or reconstructed) for styli, whether or not mounted	–
	– – Other :	
	– – – Electronic assemblies :	
8522 90 41	– – – – Of apparatus of subheading 85195000	–
8522 90 49	– – – – Other	–
8522 90 70	– – – Single cassette-deck assemblies with a total thickness not exceeding 53 mm, of a kind used in the manufacture of sound recording and reproducing apparatus	–
8522 90 80	– – – Other	–
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, including matrices and masters for the production of discs, but excluding products of Chapter 37 :	
	– Magnetic media :	
8523 21 00	– – Cards incorporating a magnetic stripe	p/st
8523 29	– – Other :	
	– – – Magnetic tapes; magnetic discs :	
8523 29 15	– – – – Unrecorded	p/st
	– – – – Other :	
8523 29 31	– – – – – For reproducing phenomena other than sound or image	p/st
8523 29 33	– – – – – For reproducing representations of instructions, data, sound, and image recorded in a machine-readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data-processing machine	p/st
8523 29 39	– – – – – Other	p/st
8523 29 90	– – – Other	–
8523 40	– Optical media :	
	– – Unrecorded :	
8523 40 11	– – – Discs for laser reading systems of a recording capacity not exceeding 900 megabytes, other than erasable	p/st
8523 40 13	– – – Discs for laser reading systems of a recording capacity exceeding 900 megabytes but not exceeding 18 gigabytes, other than erasable	p/st
8523 40 19	– – – Other	–
	– – Other :	
	– – – Discs for laser reading systems :	
8523 40 25	– – – – For reproducing phenomena other than sound or image	p/st
	– – – – For reproducing sound only :	
8523 40 31	– – – – – Of a diameter not exceeding 6,5 cm	p/st
8523 40 39	– – – – – Of a diameter exceeding 6,5 cm	p/st
	– – – – – Other :	
8523 40 45	– – – – – For reproducing representations of instructions, data, sound, and image recorded in a machine-readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data-processing machine	p/st
	– – – – – Other :	
8523 40 51	– – – – – Digital versatile discs (DVD)	p/st
8523 40 59	– – – – – Other	p/st
	– – – Other :	
8523 40 91	– – – – For reproducing phenomena other than sound or image	p/st
8523 40 93	– – – – For reproducing representations of instructions, data, sound, and image recorded in a machine-readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data-processing machine	p/st
8523 40 99	– – – – Other	p/st

CN code	Description	Supplementary unit
	– Semiconductor media :	
8523 51	– – Solid–state non–volatile storage devices :	
8523 51 10	– – – Unrecorded	p/st
	– – – Other :	
8523 51 91	– – – – For reproducing phenomena other than sound or image	p/st
8523 51 93	– – – – For reproducing representations of instructions, data, sound, and image recorded in a machine–readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data–processing machine	p/st
8523 51 99	– – – – Other	p/st
8523 52	– – ‘Smart cards’ :	
8523 52 10	– – – With two or more electronic integrated circuits	p/st
8523 52 90	– – – Other	p/st
8523 59	– – Other :	
8523 59 10	– – – Unrecorded	p/st
	– – – Other :	
8523 59 91	– – – – For reproducing phenomena other than sound or image	p/st
8523 59 93	– – – – For reproducing representations of instructions, data, sound, and image recorded in a machine–readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data–processing machine	p/st
8523 59 99	– – – – Other	p/st
8523 80	– Other :	
8523 80 10	– – Unrecorded	–
	– – Other :	
8523 80 91	– – – For reproducing phenomena other than sound or image	–
8523 80 93	– – – For reproducing representations of instructions, data, sound, and image recorded in a machine–readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data–processing machine	–
8523 80 99	– – – Other	–
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 :	
8525 50 00	– Transmission apparatus	p/st
8525 60 00	– Transmission apparatus incorporating reception apparatus	p/st
8525 80	– Television cameras, digital cameras and video camera recorders :	
	– – Television cameras :	
8525 80 11	– – – With 3 or more camera tubes	p/st
8525 80 19	– – – Other	p/st
8525 80 30	– – Digital cameras	p/st
	– – Video camera recorders :	
8525 80 91	– – – Only able to record sound and images taken by the television camera	p/st
8525 80 99	– – – Other	p/st
8526	Radar apparatus, radio navigational aid apparatus and radio remote control apparatus :	
8526 10 00	– Radar apparatus	–
	– Other :	
8526 91	– – Radio navigational aid apparatus :	
8526 91 20	– – – Radio navigational receivers	p/st
8526 91 80	– – – Other	–
8526 92 00	– – Radio remote control apparatus	–

CN code	Description	Supplementary unit
8527	Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock :	
	– Radio-broadcast receivers capable of operating without an external source of power :	
8527 12	– – Pocket-size radio cassette players :	
8527 12 10	– – – With an analogue and digital reading system	p/st
8527 12 90	– – – Other	p/st
8527 13	– – Other apparatus combined with sound recording or reproducing apparatus :	
8527 13 10	– – – With laser reading system	p/st
	– – – Other :	
8527 13 91	– – – – Of the cassette-type with an analogue and digital reading system	p/st
8527 13 99	– – – – Other	p/st
8527 19 00	– – Other	p/st
	Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles :	
8527 21	– – Combined with sound recording or reproducing apparatus :	
	– – – Capable of receiving and decoding digital radio data system signals :	
8527 21 20	– – – – With laser reading system	p/st
	– – – – Other :	
8527 21 52	– – – – – Of the cassette-type with an analogue and digital reading system	p/st
8527 21 59	– – – – – Other	p/st
	– – – – Other :	
8527 21 70	– – – – With laser reading system	p/st
	– – – – Other :	
8527 21 92	– – – – – Of the cassette-type with an analogue and digital reading system	p/st
8527 21 98	– – – – – Other	p/st
8527 29 00	– – Other	p/st
	Other :	
8527 91	– – Combined with sound recording or reproducing apparatus :	
	– – – Within the same housing one or more loudspeakers :	
8527 91 11	– – – – Of the cassette-type with an analogue and digital reading system	p/st
8527 91 19	– – – – Other	p/st
	– – – – Other :	
8527 91 35	– – – – With laser reading system	p/st
	– – – – Other :	
8527 91 91	– – – – – Of the cassette-type with an analogue and digital reading system	p/st
8527 91 99	– – – – – Other	p/st
8527 92	Not combined with sound recording or reproducing apparatus but combined with a clock :	
8527 92 10	– – – Alarm clock radios	p/st
8527 92 90	– – – Other	p/st
8527 99 00	– – Other	p/st
8528	Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus :	
	– Cathode-ray tube monitors :	
8528 41 00	– – Of a kind solely or principally used in an automatic data-processing system of heading 8471	p/st
8528 49	– – Other :	
8528 49 10	– – – Black and white or other monochrome	p/st
★ 8528 49 80	– – – Colour	p/st

CN code	Description	Supplementary unit
	– Other monitors :	
8528 51 00	– – Of a kind solely or principally used in an automatic data-processing system of heading 8471	p/st
8528 59	– – Other :	
8528 59 10	– – – Black and white or other monochrome	p/st
	– – – Colour :	
★ 8528 59 40	– – – – With a screen of the liquid crystal display (LCD) technology	p/st
★ 8528 59 80	– – – – Other	p/st
	– Projectors :	
8528 61 00	– – Of a kind solely or principally used in an automatic data-processing system of heading 8471	p/st
8528 69	– – Other :	
8528 69 10	– – – Operating by means of flat panel display (for example, a liquid crystal device), capable of displaying digital information generated by an automatic data-processing machine	p/st
	– – – Other :	
8528 69 91	– – – – Black and white or other monochrome	p/st
8528 69 99	– – – – Colour	p/st
	– Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus :	
8528 71	– – Not designed to incorporate a video display or screen :	
	– – – Video tuners :	
8528 71 11	– – – – Electronic assemblies for incorporation into automatic data-processing machines ...	p/st
8528 71 13	– – – – Apparatus with a microprocessor-based device incorporating a modem for gaining access to the Internet, and having a function of interactive information exchange, capable of receiving television signals ('set-top boxes with communication function')	p/st
8528 71 19	– – – – Other	p/st
8528 71 90	– – – – Other	p/st
8528 72	– – Other, colour :	
8528 72 10	– – – Television projection equipment	p/st
8528 72 20	– – – Apparatus incorporating a video recorder or reproducer	p/st
	– – – Other :	
★ 8528 72 30	– – – – With integral tube	p/st
★ 8528 72 40	– – – – With a screen of the liquid crystal display (LCD) technology	p/st
★ 8528 72 60	– – – – With a screen of the plasma display panel (PDP) technology	p/st
★ 8528 72 80	– – – – Other	p/st
8528 73 00	– – Other, black and white or other monochrome	p/st
8529	Parts suitable for use solely or principally with the apparatus of headings 8525 to 8528 :	
8529 10	– Aerials and aerial reflectors of all kinds; parts suitable for use therewith :	
	– – Aerials :	
8529 10 11	– – – Telescopic and whip-type aerials for portable apparatus or for apparatus for fitting in motor vehicles	–
	– – – Outside aerials for radio or television broadcast receivers :	
8529 10 31	– – – – For reception via satellite	–
8529 10 39	– – – – Other	–
8529 10 65	– – – Inside aerials for radio or television broadcast receivers, including built-in types	–
8529 10 69	– – – Other	–
8529 10 80	– – Aerial filters and separators	–
8529 10 95	– – Other	–
8529 90	– Other :	
8529 90 20	– – Parts of apparatus of subheadings 85256000, 85258030, 85284100, 85285100 and 85286100	–
	– – Other :	
	– – – Cabinets and cases :	
8529 90 41	– – – – Of wood	–
8529 90 49	– – – – Of other materials	–
8529 90 65	– – – Electronic assemblies	–

CN code	Description	Supplementary unit
	– – – Other :	
8529 90 92	– – – – For television cameras of subheadings 85258011 and 85258019 and apparatus of headings 8527 and 8528	–
8529 90 97	– – – – Other	–
8530	Electrical signalling, safety or traffic control equipment for railways, tramways, roads, inland waterways, parking facilities, port installations or airfields (other than those of heading 8608) :	
8530 10 00	– Equipment for railways or tramways	–
8530 80 00	– Other equipment	–
8530 90 00	– Parts	–
8531	Electric sound or visual signalling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 8512 or 8530 :	
8531 10	– Burglar or fire alarms and similar apparatus :	
8531 10 30	– – Of a kind used for buildings	p/st
8531 10 95	– – Other	p/st
8531 20	– Indicator panels incorporating liquid crystal devices (LCD) or light emitting diodes (LED) :	
8531 20 20	– – Incorporating light emitting diodes (LED)	–
	– – Incorporating liquid crystal devices (LCD) :	
8531 20 40	– – – Incorporating active matrix liquid crystal devices (LCD)	–
8531 20 95	– – – Other	–
8531 80	– Other apparatus :	
8531 80 20	– – Flat panel display devices	–
8531 80 95	– – Other	–
8531 90	– Parts :	
8531 90 20	– – Of apparatus of subheadings 853120 and 85318020	–
8531 90 85	– – Other	–
8532	Electrical capacitors, fixed, variable or adjustable (pre-set) :	
8532 10 00	– Fixed capacitors designed for use in 50/60 Hz circuits and having a reactive power handling capacity of not less than 0,5 kvar (power capacitors)	–
	– Other fixed capacitors :	
8532 21 00	– – Tantalum	–
8532 22 00	– – Aluminium electrolytic	–
8532 23 00	– – Ceramic dielectric, single layer	–
8532 24 00	– – Ceramic dielectric, multilayer	–
8532 25 00	– – Dielectric of paper or plastics	–
8532 29 00	– – Other	–
8532 30 00	– Variable or adjustable (pre-set) capacitors	–
8532 90 00	– Parts	–
8533	Electrical resistors (including rheostats and potentiometers), other than heating resistors :	
8533 10 00	– Fixed carbon resistors, composition or film types	–
	– Other fixed resistors :	
8533 21 00	– – For a power handling capacity not exceeding 20 W	–
8533 29 00	– – Other	–
	– Wirewound variable resistors, including rheostats and potentiometers :	
8533 31 00	– – For a power handling capacity not exceeding 20 W	–
8533 39 00	– – Other	–
8533 40	– Other variable resistors, including rheostats and potentiometers :	
8533 40 10	– – For a power handling capacity not exceeding 20 W	–
8533 40 90	– – Other	–
8533 90 00	– Parts	–

CN code	Description	Supplementary unit
8534 00	Printed circuits :	
	– Consisting only of conductor elements and contacts :	
8534 00 11	– – Multilayer circuits	–
8534 00 19	– – Other	–
8534 00 90	– With other passive elements	–
8535	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, fuses, lightning arresters, voltage limiters, surge suppressors, plugs and other connectors, junction boxes), for a voltage exceeding 1000 V :	
8535 10 00	– Fuses	–
	– Automatic circuit breakers :	
8535 21 00	– – For a voltage of less than 72,5 kV	–
8535 29 00	– – Other	–
8535 30	– Isolating switches and make-and-break switches :	
8535 30 10	– – For a voltage of less than 72,5 kV	–
8535 30 90	– – Other	–
8535 40 00	– Lightning arresters, voltage limiters and surge suppressors	–
8535 90 00	– Other	–
8536	Electrical 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 1000 V; connectors for optical fibres, optical fibre bundles or cables :	
8536 10	– Fuses :	
8536 10 10	– – For a current not exceeding 10 A	–
8536 10 50	– – For a current exceeding 10 A but not exceeding 63 A	–
8536 10 90	– – For a current exceeding 63 A	–
8536 20	– Automatic circuit breakers :	
8536 20 10	– – For a current not exceeding 63 A	–
8536 20 90	– – For a current exceeding 63 A	–
8536 30	– Other apparatus for protecting electrical circuits :	
8536 30 10	– – For a current not exceeding 16 A	–
8536 30 30	– – For a current exceeding 16 A but not exceeding 125 A	–
8536 30 90	– – For a current exceeding 125 A	–
	– Relays :	
8536 41	– – For a voltage not exceeding 60 V :	
8536 41 10	– – – For a current not exceeding 2 A	–
8536 41 90	– – – For a current exceeding 2 A	–
8536 49 00	– – Other	–
8536 50	– Other switches :	
8536 50 03	– – Electronic AC switches consisting of optically coupled input and output circuits (insulated thyristor AC switches)	–
8536 50 05	– – Electronic switches, including temperature protected electronic switches, consisting of a transistor and a logic chip (chip-on-chip technology)	–
8536 50 07	– – Electromechanical snap-action switches for a current not exceeding 11 A	–
	– – Other :	
	– – – For a voltage not exceeding 60 V :	
8536 50 11	– – – – Push-button switches	–
8536 50 15	– – – – Rotary switches	–
8536 50 19	– – – – Other	–
8536 50 80	– – – – Other	–

CN code	Description	Supplementary unit
	– Lamp holders, plugs and sockets :	
8536 61	– – Lamp holders :	
8536 61 10	– – – Edison lamp holders	–
8536 61 90	– – – Other	–
8536 69	– – Other :	
8536 69 10	– – – For coaxial cables	–
8536 69 30	– – – For printed circuits	–
8536 69 90	– – – Other	–
8536 70 00	– Connectors for optical fibres, optical fibre bundles or cables	–
8536 90	– Other apparatus :	
8536 90 01	– – Prefabricated elements for electrical circuits	–
8536 90 10	– – Connections and contact elements for wire and cables	–
8536 90 20	– – Wafer probers	–
8536 90 85	– – Other	–
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, including those incorporating instruments or apparatus of Chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517 :	
8537 10	– For a voltage not exceeding 1000 V :	
8537 10 10	– – Numerical control panels with built-in automatic data-processing machine	–
	– – Other :	
8537 10 91	– – – Programmable memory controllers	–
8537 10 99	– – – Other	–
8537 20	– For a voltage exceeding 1000 V :	
8537 20 91	– – For a voltage exceeding 1000 V but not exceeding 72,5 kV	–
8537 20 99	– – For a voltage exceeding 72,5 kV	–
8538	Parts suitable for use solely or principally with the apparatus of heading 8535, 8536 or 8537 :	
8538 10 00	– Boards, panels, consoles, desks, cabinets and other bases for the goods of heading 8537, not equipped with their apparatus	–
8538 90	– Other :	
	– – For wafer probers of subheading 85369020 :	
8538 90 11	– – – Electronic assemblies	–
8538 90 19	– – – Other	–
	– – Other :	
8538 90 91	– – – Electronic assemblies	–
8538 90 99	– – – Other	–
8539	Electric filament or discharge lamps, including sealed beam lamp units and ultraviolet or infra-red lamps; arc lamps :	
8539 10 00	– Sealed beam lamp units	p/st
	– Other filament lamps, excluding ultraviolet or infra-red lamps :	
8539 21	– – Tungsten halogen :	
8539 21 30	– – – Of a kind used for motorcycles or other motor vehicles	p/st
	– – – Other, for a voltage :	
8539 21 92	– – – Exceeding 100 V	p/st
8539 21 98	– – – Not exceeding 100 V	p/st
8539 22	– – Other, of a power not exceeding 200 W and for a voltage exceeding 100 V :	
8539 22 10	– – – Reflector lamps	p/st
8539 22 90	– – – Other	p/st

CN code	Description	Supplementary unit
8539 29	– – Other :	
8539 29 30	– – – Of a kind used for motorcycles or other motor vehicles	p/st
	– – – Other, for a voltage :	
8539 29 92	– – – – Exceeding 100 V	p/st
8539 29 98	– – – – Not exceeding 100 V	p/st
	– Discharge lamps, other than ultraviolet lamps :	
8539 31	– – Fluorescent, hot cathode :	
8539 31 10	– – – With double ended cap	p/st
8539 31 90	– – – Other	p/st
8539 32	– – Mercury or sodium vapour lamps; metal halide lamps :	
★ 8539 32 20	– – – Mercury or sodium vapour lamps	p/st
8539 32 90	– – – Metal halide lamps	p/st
8539 39 00	– – Other	p/st
	– Ultraviolet or infra-red lamps; arc lamps :	
8539 41 00	– – Arc lamps	p/st
★ 8539 49 00	– – Other	p/st
8539 90	– Parts :	
8539 90 10	– – Lamp bases	–
8539 90 90	– – Other	–
8540	Thermionic, cold cathode or photocathode valves and tubes (for example, vacuum or vapour or gas filled valves and tubes, mercury arc rectifying valves and tubes, cathode ray tubes, television camera tubes) :	
	– Cathode ray television picture tubes, including video monitor cathode ray tubes :	
★ 8540 11 00	– – Colour	p/st
8540 12 00	– – Black and white or other monochrome	p/st
8540 20	– Television camera tubes; image converters and intensifiers; other photocathode tubes :	
8540 20 10	– – Television camera tubes	p/st
8540 20 80	– – Other	p/st
8540 40 00	– Data/graphic display tubes, colour, with a phosphor dot screen pitch smaller than 0,4 mm	p/st
8540 50 00	– Data/graphic display tubes, black and white or other monochrome	p/st
8540 60 00	– Other cathode ray tubes	p/st
	– Microwave tubes (for example, magnetrons, klystrons, travelling wave tubes, carcinotrons), excluding grid-controlled tubes :	
8540 71 00	– – Magnetrons	p/st
8540 72 00	– – Klystrons	p/st
8540 79 00	– – Other	p/st
	– Other valves and tubes :	
8540 81 00	– – Receiver or amplifier valves and tubes	p/st
8540 89 00	– – Other	p/st
	– Parts :	
8540 91 00	– – Of cathode ray tubes	–
8540 99 00	– – Other	–
8541	Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes; mounted piezoelectric crystals :	
8541 10 00	– Diodes, other than photosensitive or light-emitting diodes	–
	– Transistors, other than photosensitive transistors :	
8541 21 00	– – With a dissipation rate of less than 1 W	–
8541 29 00	– – Other	–
8541 30 00	– Thyristors, diacs and triacs, other than photosensitive devices	–

CN code	Description	Supplementary unit
8541 40	– Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes :	
8541 40 10	– – Light-emitting diodes, including laser diodes	–
8541 40 90	– – Other	–
8541 50 00	– Other semiconductor devices	–
8541 60 00	– Mounted piezoelectric crystals	–
8541 90 00	– Parts	–
8542	Electronic integrated circuits :	
	– Electronic integrated circuits :	
8542 31	– – Processors and controllers, whether or not combined with memories, converters, logic circuits, amplifiers, clock and timing circuits, or other circuits :	
8542 31 10	– – – Goods specified in note 8(b)(3) to this chapter	–
8542 31 90	– – – Other	–
8542 32	– – Memories :	
8542 32 10	– – – Goods specified in note 8(b)(3) to this chapter	–
	– – – Other :	
	– – – – Dynamic random-access memories (D-RAMs) :	
8542 32 31	– – – – With a storage capacity not exceeding 512 Mbits	p/st
8542 32 39	– – – – With a storage capacity exceeding 512 Mbits	p/st
8542 32 45	– – – – Static random-access memories (S-RAMs), including cache random-access memories (cache-RAMs)	p/st
8542 32 55	– – – – UV erasable, programmable, read only memories (EPROMs)	p/st
	– – – – Electrically erasable, programmable, read only memories (E ² PROMs), including flash E ² PROMs :	
	– – – – – Flash E ² PROMs :	
8542 32 61	– – – – – With a storage capacity not exceeding 512 Mbits	p/st
8542 32 69	– – – – – With a storage capacity exceeding 512 Mbits	p/st
8542 32 75	– – – – – Other	p/st
8542 32 90	– – – – Other memories	–
8542 33 00	– – Amplifiers	–
8542 39	– – Other :	
8542 39 10	– – – Goods specified in note 8(b)(3) to this chapter	–
8542 39 90	– – – Other	–
8542 90 00	– Parts	–
8543	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter :	
8543 10 00	– Particle accelerators	–
8543 20 00	– Signal generators	–
8543 30 00	– Machines and apparatus for electroplating, electrolysis or electrophoresis	–
8543 70	– Other machines and apparatus :	
8543 70 10	– – Electrical machines with translation or dictionary functions	–
8543 70 30	– – Aerial amplifiers	–
★ 8543 70 50	– – Sunbeds, sunlamps and similar suntanning equipment	p/st
8543 70 60	– – Electric fence energisers	–
8543 70 90	– – Other	–
8543 90 00	– Parts	–

CN code	Description	Supplementary unit
8544	Insulated (including enamelled or anodised) wire, cable (including 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 :	
	– Winding wire :	
8544 11	– – Of copper :	
8544 11 10	– – – Lacquered or enamelled	–
8544 11 90	– – – Other	–
★	8544 19 00 – – Other	–
8544 20 00	– Coaxial cable and other coaxial electric conductors	–
8544 30 00	– Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	–
	– Other electric conductors, for a voltage not exceeding 1000 V :	
8544 42	– – Fitted with connectors :	
8544 42 10	– – – Of a kind used for telecommunications	–
8544 42 90	– – – Other	–
8544 49	– – Other :	
8544 49 20	– – – Of a kind used for telecommunications, for a voltage not exceeding 80 V	–
	– – – Other :	
8544 49 91	– – – – Wire and cables, with individual conductor wires of a diameter exceeding 0,51 mm	–
	– – – – Other :	
8544 49 93	– – – – – For a voltage not exceeding 80 V	–
8544 49 95	– – – – – For a voltage exceeding 80 V but less than 1000 V	–
8544 49 99	– – – – – For a voltage of 1000 V	–
8544 60	– Other electric conductors, for a voltage exceeding 1000 V :	
8544 60 10	– – With copper conductors	–
8544 60 90	– – With other conductors	–
8544 70 00	– Optical fibre cables	–
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 :	
	– Electrodes :	
8545 11 00	– – Of a kind used for furnaces	–
★	8545 19 00 – – Other	–
8545 20 00	– Brushes	–
8545 90	– Other :	
8545 90 10	– – Heating resistors	–
8545 90 90	– – Other	–
8546	Electrical insulators of any material :	
8546 10 00	– Of glass	–
★	8546 20 00 – Of ceramics	–
8546 90	– Other :	
8546 90 10	– – Of plastics	–
8546 90 90	– – Other	–
8547	Insulating fittings for electrical machines, appliances or equipment, being fittings wholly of insulating material apart from any minor components of metal (for example, 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 :	
★	8547 10 00 – Insulating fittings of ceramics	–
8547 20 00	– Insulating fittings of plastics	–
8547 90 00	– Other	–

CN code	Description	Supplementary unit
8548	Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, not specified or included elsewhere in this chapter :	
8548 10	– Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators :	
8548 10 10	– – Spent primary cells, spent primary batteries	p/st
8548 10 21	– – – Lead–acid accumulators	ce/el
8548 10 29	– – – Other	ce/el
8548 10 91	– – – Containing lead	–
8548 10 99	– – – Other	–
8548 90	– Other :	
8548 90 20	– – Memories in multicombinational forms such as stack D–RAMs and modules	–
8548 90 90	– – Other	–