

## 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 70.11; or
- (c) Electrically heated furniture of Chapter 94.

2.- Headings 85.01 to 85.04 do not apply to goods described in heading 85.11, 85.12, 85.40, 85.41 or 85.42.

However, metal tank mercury arc rectifiers remain classified in heading 85.04.

3.- Heading 85.09 covers only the following electro-mechanical machines of the kind commonly used for domestic purposes :

- (a) Vacuum cleaners, including dry and wet vacuum cleaners, 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 84.14), centrifugal clothes-dryers (heading 84.21), dish washing machines (heading 84.22), household washing machines (heading 84.50), roller or other ironing machines (heading 84.20 or 84.51), sewing machines (heading 84.52), electric scissors (heading 84.67) or to electro-thermic appliances (heading 85.16).

4.- For the purposes of heading 85.34 “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 85.42.

5.- For the purposes of headings 85.41 and 85.42 :

- (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 and microassemblies” are :
  - (a) Monolithic integrated circuits in which the circuit elements (diodes, transistors, resistors, capacitors, interconnections, etc.) are created in the mass (essentially) and on the surface of a semiconductor material (doped silicon, for example) and are inseparably associated;
  - (b) Hybrid integrated circuits in which passive elements (resistors, capacitors, interconnections, 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, on a single insulating substrate (glass, ceramic, etc.). These circuits may also include discrete components;
  - (c) Microassemblies of the moulded module, micromodule or similar types, consisting of discrete, active or both active and passive, components which are combined and interconnected.

For the classification of the articles defined in this Note, headings 85.41 and 85.42 shall take precedence over any other heading in the Nomenclature which might cover them by reference to, in particular, their function.

6.- Records, tapes and other media of heading 85.23 or 85.24 remain classified in those headings when presented with the apparatus for which they are intended.

This Note does not apply to such media when they are presented with articles other than the apparatus for which they are intended.

- 7.- For the purposes of heading 85.48, “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 Notes.**

- 1.- Subheadings 8519.92 and 8527.12 cover 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.
- 2.- For the purposes of subheading 8542.10, the term “smart cards” means cards which have embedded in them an electronic integrated circuit (microprocessor) of any type in the form of a chip and which may or may not have a magnetic stripe.

Heading	H.S. Code	
<b>85.01</b>		<b>Electric motors and generators (excluding generating sets).</b>
	8501.10	- Motors of an output not exceeding 37.5 W
	8501.20	- Universal AC/DC motors of an output exceeding 37.5 W
		- Other DC motors; DC generators :
	8501.31	-- Of an output not exceeding 750 W
	8501.32	-- Of an output exceeding 750 W but not exceeding 75 kW
	8501.33	-- Of an output exceeding 75 kW but not exceeding 375 kW
	8501.34	-- Of an output exceeding 375 kW
	8501.40	- Other AC motors, single-phase
		- Other AC motors, multi-phase :
	8501.51	-- Of an output not exceeding 750 W
	8501.52	-- Of an output exceeding 750 W but not exceeding 75 kW
	8501.53	-- Of an output exceeding 75 kW
		- AC generators (alternators) :
	8501.61	-- Of an output not exceeding 75 kVA
	8501.62	-- Of an output exceeding 75 kVA but not exceeding 375 kVA
	8501.63	-- Of an output exceeding 375 kVA but not exceeding 750 kVA
	8501.64	-- Of an output exceeding 750 kVA
<b>85.02</b>		<b>Electric generating sets and rotary converters.</b>
		- Generating sets with compression-ignition internal combustion piston engines (diesel or semi-diesel engines) :
	8502.11	-- Of an output not exceeding 75 kVA
	8502.12	-- Of an output exceeding 75 kVA but not exceeding 375 kVA
	8502.13	-- Of an output exceeding 375 kVA
	8502.20	- Generating sets with spark-ignition internal combustion piston engines
		- Other generating sets :
	8502.31	-- Wind-powered
	8502.39	-- Other
	8502.40	- Electric rotary converters
<b>85.03</b>	8503.00	<b>Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02.</b>

<b>85.04</b>	<b>Electrical transformers, static converters (for example, rectifiers) and inductors.</b>
8504.10	- Ballasts for discharge lamps or tubes
	- Liquid dielectric transformers :
8504.21	-- Having a power handling capacity not exceeding 650 kVA
8504.22	-- Having a power handling capacity exceeding 650 kVA but not exceeding 10,000 kVA
8504.23	-- Having a power handling capacity exceeding 10,000 kVA
	- Other transformers :
8504.31	-- Having a power handling capacity not exceeding 1 kVA
8504.32	-- Having a power handling capacity exceeding 1 kVA but not exceeding 16 kVA
8504.33	-- Having a power handling capacity exceeding 16 kVA but not exceeding 500 kVA
8504.34	-- Having a power handling capacity exceeding 500 kVA
8504.40	- Static converters
8504.50	- Other inductors
8504.90	- Parts
<b>85.05</b>	<b>Electro-magnets; permanent magnets and articles intended to become permanent magnets after magnetisation; electro-magnetic or permanent magnet chucks, clamps and similar holding devices; electro-magnetic couplings, clutches and brakes; electro-magnetic lifting heads.</b>
	- Permanent magnets and articles intended to become permanent magnets after magnetisation :
8505.11	-- Of metal
8505.19	-- Other
8505.20	- Electro-magnetic couplings, clutches and brakes
8505.30	- Electro-magnetic lifting heads
8505.90	- Other, including parts
<b>85.06</b>	<b>Primary cells and primary batteries.</b>
8506.10	- Manganese dioxide
8506.30	- Mercuric oxide
8506.40	- Silver oxide
8506.50	- Lithium
8506.60	- Air-zinc
8506.80	- Other primary cells and primary batteries
8506.90	- Parts
<b>85.07</b>	<b>Electric accumulators, including separators therefor, whether or not rectangular (including square).</b>
8507.10	- Lead-acid, of a kind used for starting piston engines
8507.20	- Other lead-acid accumulators
8507.30	- Nickel-cadmium
8507.40	- Nickel-iron
8507.80	- Other accumulators
8507.90	- Parts
<b>[85.08]</b>	
<b>85.09</b>	<b>Electro-mechanical domestic appliances, with self-contained</b>

	<b>electric motor.</b>
8509.10	- Vacuum cleaners, including dry and wet vacuum cleaners
8509.20	- Floor polishers
8509.30	- Kitchen waste disposers
8509.40	- Food grinders and mixers; fruit or vegetable juice extractors
8509.80	- Other appliances
8509.90	- Parts
<b>85.10</b>	<b>Shavers, hair clippers and hair-removing appliances, with self-contained electric motor.</b>
8510.10	- Shavers
8510.20	- Hair clippers
8510.30	- Hair-removing appliances
8510.90	- Parts
<b>85.11</b>	<b>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.</b>
8511.10	- Sparking plugs
8511.20	- Ignition magnetos; magneto-dynamos; magnetic flywheels
8511.30	- Distributors; ignition coils
8511.40	- Starter motors and dual purpose starter-generators
8511.50	- Other generators
8511.80	- Other equipment
8511.90	- Parts
<b>85.12</b>	<b>Electrical lighting or signalling equipment (excluding articles of heading 85.39), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles.</b>
8512.10	- Lighting or visual signalling equipment of a kind used on bicycles
8512.20	- Other lighting or visual signalling equipment
8512.30	- Sound signalling equipment
8512.40	- Windscreen wipers, defrosters and demisters
8512.90	- Parts
<b>85.13</b>	<b>Portable electric lamps designed to function by their own source of energy (for example, dry batteries, accumulators, magnetos), other than lighting equipment of heading 85.12.</b>
8513.10	- Lamps
8513.90	- Parts
<b>85.14</b>	<b>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.</b>
8514.10	- Resistance heated furnaces and ovens
8514.20	- Furnaces and ovens functioning by induction or dielectric loss
8514.30	- Other furnaces and ovens
8514.40	- Other equipment for the heat treatment of materials by induction or dielectric loss
8514.90	- Parts

85.15		<p><b>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.</b></p>
		- Brazing or soldering machines and apparatus :
	8515.11	-- Soldering irons and guns
	8515.19	-- Other
		- Machines and apparatus for resistance welding of metal :
	8515.21	-- Fully or partly automatic
	8515.29	-- Other
		- Machines and apparatus for arc (including plasma arc) welding of metals :
	8515.31	-- Fully or partly automatic
	8515.39	-- Other
	8515.80	- Other machines and apparatus
	8515.90	- Parts
85.16		<p><b>Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electro-thermic hair-dressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electro-thermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 85.45.</b></p>
	8516.10	- Electric instantaneous or storage water heaters and immersion heaters
		- Electric space heating apparatus and electric soil heating apparatus :
	8516.21	-- Storage heating radiators
	8516.29	-- Other
		- Electro-thermic hair-dressing or hand-drying apparatus :
	8516.31	-- Hair dryers
	8516.32	-- Other hair-dressing apparatus
	8516.33	-- Hand-drying apparatus
	8516.40	- Electric smoothing irons
	8516.50	- Microwave ovens
	8516.60	- Other ovens; cookers, cooking plates, boiling rings, grillers and roasters
		- Other electro-thermic appliances :
	8516.71	-- Coffee or tea makers
	8516.72	-- Toasters
	8516.79	-- Other
	8516.80	- Electric heating resistors
	8516.90	- Parts
85.17		<p><b>Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets and telecommunication apparatus for carrier-current line systems or for digital line systems; videophones.</b></p>
		- Telephone sets; videophones :
	8517.11	-- Line telephone sets with cordless handsets
	8517.19	-- Other

		- Facsimile machines and teleprinters :
	8517.21	-- Facsimile machines
	8517.22	-- Teleprinters
	8517.30	- Telephonic or telegraphic switching apparatus
	8517.50	- Other apparatus, for carrier-current line systems or for digital line systems
	8517.80	- Other apparatus
	8517.90	- Parts
<b>85.18</b>		<b>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.</b>
	8518.10	- Microphones and stands therefor
		- Loudspeakers, whether or not mounted in their enclosures :
	8518.21	-- Single loudspeakers, mounted in their enclosures
	8518.22	-- Multiple loudspeakers, mounted in the same enclosure
	8518.29	-- Other
	8518.30	- Headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers
	8518.40	- Audio-frequency electric amplifiers
	8518.50	- Electric sound amplifier sets
	8518.90	- Parts
<b>85.19</b>		<b>Turntables (record-decks), record-players, cassette-players and other sound reproducing apparatus, not incorporating a sound recording device.</b>
	8519.10	- Coin- or disc-operated record-players
		- Other record-players :
	8519.21	-- Without loudspeaker
	8519.29	-- Other
		- Turntables (record-decks) :
	8519.31	-- With automatic record changing mechanism
	8519.39	-- Other
	8519.40	- Transcribing machines
		- Other sound reproducing apparatus :
	8519.92	-- Pocket-size cassette-players
	8519.93	-- Other, cassette-type
	8519.99	-- Other
<b>85.20</b>		<b>Magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device.</b>
	8520.10	- Dictating machines not capable of operating without an external source of power
	8520.20	- Telephone answering machines
		- Other magnetic tape recorders incorporating sound reproducing apparatus :
	8520.32	-- Digital audio type
	8520.33	-- Other, cassette-type
	8520.39	-- Other

	8520.90	- Other
<b>85.21</b>		<b>Video recording or reproducing apparatus, whether or not incorporating a video tuner.</b>
	8521.10	- Magnetic tape-type
	8521.90	- Other
<b>85.22</b>		<b>Parts and accessories suitable for use solely or principally with the apparatus of headings 85.19 to 85.21.</b>
	8522.10	- Pick-up cartridges
	8522.90	- Other
<b>85.23</b>		<b>Prepared unrecorded media for sound recording or similar recording of other phenomena, other than products of Chapter 37.</b>
		- Magnetic tapes :
	8523.11	-- Of a width not exceeding 4 mm
	8523.12	-- Of a width exceeding 4 mm but not exceeding 6.5 mm
	8523.13	-- Of a width exceeding 6.5 mm
	8523.20	- Magnetic discs
	8523.30	- Cards incorporating a magnetic stripe
	8523.90	- Other
<b>85.24</b>		<b>Records, tapes and other recorded media for sound or other similarly recorded phenomena, including matrices and masters for the production of records, but excluding products of Chapter 37.</b>
	8524.10	- Gramophone records
		- Discs for laser reading systems :
	8524.31	-- For reproducing phenomena other than sound or image
	8524.32	-- For reproducing sound only
	8524.39	-- Other
	8524.40	- Magnetic tapes for reproducing phenomena other than sound or image
		- Other magnetic tapes :
	8524.51	-- Of a width not exceeding 4 mm
	8524.52	-- Of a width exceeding 4 mm but not exceeding 6.5 mm
	8524.53	-- Of a width exceeding 6.5 mm
	8524.60	- Cards incorporating a magnetic stripe
		- Other :
	8524.91	-- For reproducing phenomena other than sound or image
	8524.99	-- Other
<b>85.25</b>		<b>Transmission apparatus for radio-telephony, radio-telegraphy, radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras; still image video cameras and other video camera recorders; digital cameras.</b>
	8525.10	- Transmission apparatus
	8525.20	- Transmission apparatus incorporating reception apparatus
	8525.30	- Television cameras
	8525.40	- Still image video cameras and other video camera recorders; digital cameras
<b>85.26</b>		<b>Radar apparatus, radio navigational aid apparatus and</b>

		<b>radio remote control apparatus.</b>
	8526.10	- Radar apparatus
		- Other :
	8526.91	-- Radio navigational aid apparatus
	8526.92	-- Radio remote control apparatus
<b>85.27</b>		<b>Reception apparatus for radio-telephony, radio-telegraphy or radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock.</b>
		- Radio-broadcast receivers capable of operating without an external source of power, including apparatus capable of receiving also radio-telephony or radio-telegraphy :
	8527.12	-- Pocket-size radio cassette-players
	8527.13	-- Other apparatus combined with sound recording or reproducing apparatus
	8527.19	-- Other
		- Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles, including apparatus capable of receiving also radio-telephony or radio-telegraphy :
	8527.21	-- Combined with sound recording or reproducing apparatus
	8527.29	-- Other
		- Other radio-broadcast receivers, including apparatus capable of receiving also radio-telephony or radio-telegraphy :
	8527.31	-- Combined with sound recording or reproducing apparatus
	8527.32	-- Not combined with sound recording or reproducing apparatus but combined with a clock
	8527.39	-- Other
	8527.90	- Other apparatus
<b>85.28</b>		<b>Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus; video monitors and video projectors.</b>
		- Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus :
	8528.12	-- Colour
	8528.13	-- Black and white or other monochrome
		- Video monitors :
	8528.21	-- Colour
	8528.22	-- Black and white or other monochrome
	8528.30	- Video projectors
<b>85.29</b>		<b>Parts suitable for use solely or principally with the apparatus of headings 85.25 to 85.28.</b>
	8529.10	- Aerials and aerial reflectors of all kinds; parts suitable for use therewith
	8529.90	- Other
<b>85.30</b>		<b>Electrical signalling, safety or traffic control equipment for railways, tramways, roads, inland waterways, parking facilities, port installations or airfields (other than those of heading 86.08).</b>
	8530.10	- Equipment for railways or tramways
	8530.80	- Other equipment

	8530.90	- Parts
<b>85.31</b>		<b>Electric sound or visual signalling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 85.12 or 85.30.</b>
	8531.10	- Burglar or fire alarms and similar apparatus
	8531.20	- Indicator panels incorporating liquid crystal devices (LCD) or light emitting diodes (LED)
	8531.80	- Other apparatus
	8531.90	- Parts
<b>85.32</b>		<b>Electrical capacitors, fixed, variable or adjustable (pre-set).</b>
	8532.10	- 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	-- Tantalum
	8532.22	-- Aluminium electrolytic
	8532.23	-- Ceramic dielectric, single layer
	8532.24	-- Ceramic dielectric, multilayer
	8532.25	-- Dielectric of paper or plastics
	8532.29	-- Other
	8532.30	- Variable or adjustable (pre-set) capacitors
	8532.90	- Parts
<b>85.33</b>		<b>Electrical resistors (including rheostats and potentiometers), other than heating resistors.</b>
	8533.10	- Fixed carbon resistors, composition or film types
		- Other fixed resistors :
	8533.21	-- For a power handling capacity not exceeding 20 W
	8533.29	-- Other
		- Wirewound variable resistors, including rheostats and potentiometers :
	8533.31	-- For a power handling capacity not exceeding 20 W
	8533.39	-- Other
	8533.40	- Other variable resistors, including rheostats and potentiometers
	8533.90	- Parts
<b>85.34</b>	8534.00	<b>Printed circuits.</b>
<b>85.35</b>		<b>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, junction boxes), for a voltage exceeding 1,000 volts.</b>
	8535.10	- Fuses
		- Automatic circuit breakers :
	8535.21	-- For a voltage of less than 72.5 kV
	8535.29	-- Other
	8535.30	- Isolating switches and make-and-break switches
	8535.40	- Lightning arresters, voltage limiters and surge suppressors
	8535.90	- Other

85.36	<b>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, junction boxes), for a voltage not exceeding 1,000 volts.</b>
8536.10	- Fuses
8536.20	- Automatic circuit breakers
8536.30	- Other apparatus for protecting electrical circuits
	- Relays :
8536.41	-- For a voltage not exceeding 60 V
8536.49	-- Other
8536.50	- Other switches
	- Lamp-holders, plugs and sockets :
8536.61	-- Lamp-holders
8536.69	-- Other
8536.90	- Other apparatus
85.37	<b>Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 85.35 or 85.36, 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 85.17.</b>
8537.10	- For a voltage not exceeding 1,000 V
8537.20	- For a voltage exceeding 1,000 V
85.38	<b>Parts suitable for use solely or principally with the apparatus of heading 85.35, 85.36 or 85.37.</b>
8538.10	- Boards, panels, consoles, desks, cabinets and other bases for the goods of heading 85.37, not equipped with their apparatus
8538.90	- Other
85.39	<b>Electric filament or discharge lamps, including sealed beam lamp units and ultra-violet or infra-red lamps; arc-lamps.</b>
8539.10	- Sealed beam lamp units - Other filament lamps, excluding ultra-violet or infra-red lamps :
8539.21	-- Tungsten halogen
8539.22	-- Other, of a power not exceeding 200 W and for a voltage exceeding 100 V
8539.29	-- Other
	- Discharge lamps, other than ultra-violet lamps :
8539.31	-- Fluorescent, hot cathode
8539.32	-- Mercury or sodium vapour lamps; metal halide lamps
8539.39	-- Other
	- Ultra-violet or infra-red lamps; arc-lamps :
8539.41	-- Arc-lamps
8539.49	-- Other
8539.90	- Parts
85.40	<b>Thermionic, cold cathode or photo-cathode 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).</b>

	- Cathode-ray television picture tubes, including video monitor cathode-ray tubes :
8540.11	-- Colour
8540.12	-- Black and white or other monochrome
8540.20	- Television camera tubes; image converters and intensifiers; other photo-cathode tubes
8540.40	- Data/graphic display tubes, colour, with a phosphor dot screen pitch smaller than 0.4 mm
8540.50	- Data/graphic display tubes, black and white or other monochrome
8540.60	- Other cathode-ray tubes
	- Microwave tubes (for example, magnetrons, klystrons, travelling wave tubes, carcinotrons), excluding grid-controlled tubes :
8540.71	-- Magnetrons
8540.72	-- Klystrons
8540.79	-- Other
	- Other valves and tubes :
8540.81	-- Receiver or amplifier valves and tubes
8540.89	-- Other
	- Parts :
8540.91	-- Of cathode-ray tubes
8540.99	-- Other
<b>85.41</b>	<b>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 piezo-electric crystals.</b>
8541.10	- Diodes, other than photosensitive or light emitting diodes
	- Transistors, other than photosensitive transistors :
8541.21	-- With a dissipation rate of less than 1 W
8541.29	-- Other
8541.30	- Thyristors, diacs and triacs, other than photosensitive devices
8541.40	- Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes
8541.50	- Other semiconductor devices
8541.60	- Mounted piezo-electric crystals
8541.90	- Parts
<b>85.42</b>	<b>Electronic integrated circuits and microassemblies.</b>
8542.10	- Cards incorporating an electronic integrated circuit ("smart" cards)
	- Monolithic integrated circuits :
8542.21	-- Digital
8542.29	-- Other
8542.60	- Hybrid integrated circuits
8542.70	- Electronic microassemblies
8542.90	- Parts
<b>85.43</b>	<b>Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this Chapter.</b>

		- Particle accelerators :
	8543.11	-- Ion implanters for doping semiconductor materials
	8543.19	-- Other
	8543.20	- Signal generators
	8543.30	- Machines and apparatus for electroplating, electrolysis or electrophoresis
	8543.40	- Electric fence energisers
		- Other machines and apparatus :
	8543.81	-- Proximity cards and tags
	8543.89	-- Other
	8543.90	- Parts
<b>85.44</b>		<b>Insulated (including enamelled or anodised) wire, cable (including co-axial 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.</b>
		- Winding wire :
	8544.11	-- Of copper
	8544.19	-- Other
	8544.20	- Co-axial cable and other co-axial electric conductors
	8544.30	- Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships
		- Other electric conductors, for a voltage not exceeding 80 V :
	8544.41	-- Fitted with connectors
	8544.49	-- Other
		- Other electric conductors, for a voltage exceeding 80 V but not exceeding 1,000 V :
	8544.51	-- Fitted with connectors
	8544.59	-- Other
	8544.60	- Other electric conductors, for a voltage exceeding 1,000 V
	8544.70	- Optical fibre cables
<b>85.45</b>		<b>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.</b>
		- Electrodes :
	8545.11	-- Of a kind used for furnaces
	8545.19	-- Other
	8545.20	- Brushes
	8545.90	- Other
<b>85.46</b>		<b>Electrical insulators of any material.</b>
	8546.10	- Of glass
	8546.20	- Of ceramics
	8546.90	- Other
<b>85.47</b>		<b>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 85.46; electrical conduit tubing and joints therefor, of base metal lined with insulating material.</b>

	8547.10	- Insulating fittings of ceramics
	8547.20	- Insulating fittings of plastics
	8547.90	- Other
<b>85.48</b>		<b>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.</b>
	8548.10	- Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators
	8548.90	- Other

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