Cabinet Resolution No. (10) of 2017 Regarding the UAE Regulations for Control of Hazardous Substance Ratios in Electric and Electronic Devices

The Cabinet;

- Having reviewed the Constitution;
- Federal Law No. (1) of 1972 regarding the Competences of the Ministries and the Powers of Ministers as amended;
- Federal Law No. (1) of 1979 regulating the Industry Affairs;
- Federal Law No. (24) of 1999 regarding the Environment Protection and Development, as amended;
- Federal Law No. (28) of 2001 on the Establishment of Emirates Authority for Standardization and Metrology (ESMA), as amended;
- Federal Law No. (24) of 2006 regarding the Consumer's Protection as amended;
- Federal Law No. (19) of 2016 on Combating Commercial Fraud;
- The Cabinet Resolution No. (35) of 2015 regarding the UAE Regulations for Control of Conformity Assessment Bodies and;
- Based on the Cabinet approval;

Hereby resolved as follows:

Article (1)

Definitions

1. For applying the provisions hereof, and unless otherwise required by the context, the following words and expressions shall have the meanings assigned thereto:

The State	:	The United Arab Emirates
ESMA	:	Emirates Authority for Standardization and Metrology (ESMA)
The Board	:	ESMA Board of Directors
The Director General	:	The Director General of ESMA
The Competent Authority	:	The federal or local authority concerned with the implementation of the provisions hereof.

Standard	:	A document that defines the specifications of a particular commodity, material, service or any measurable object or its specifications, properties, level of quality, dimensions, measurements or requirement of safety and security. This includes the terms, symbols, testing methods, samples, packaging, information labels and marks.
Approved Standards	:	The standards approved by ESMA and referred to with the expression "UAE standards" and the code (UAE/S) or UAE.S.
The Product	:	Any device referred to in annex (1) attached hereto which is operated by electric power or electromagnetic field and is designed to operate at a voltage of not more than 1000 volt for alternating current and 1500 volt for direct current.
Emirates Conformity Assessment Scheme (ECAS)	:	The scheme issued by ESMA and intended for the direct or indirect verification of product conformity with the requirements of the approved standards through certain measures carried out by ESMA including inspection, testing, standardization or issuance of conformity certificates.
Conformity Certificate	:	A certificate issued by ESMA confirming the conformity of a product or any batch thereof to the requirements of the approved standards.
Supplier	:	The factory, importer, agent or assembler of the product, or any main or secondary distributor whose activity affects the product properties or any commercial or legal representative responsible for the import, installation and operation of the product subject to the provisions hereof who practices his business through a company or individual establishment licensed in the State.
Supply Chain	:	All the stages through which the product passes after its manufacturing including its import, supply, storage, assembly, wholesale or retail or any other related processes until the product is installed and put into service.
Technical Standard	:	A document setting out the technical requirements of the

product, operations and services.

Market Survey : Any activity or actions taken by the competent authorities to ensure that the product conforms to the requirements hereof. This shall not include the health and safety control procedures.

Hazardous Substances : Any of the substances specified in Annex (2) attached hereto which are used in manufacturing the product.

2. The definitions of technical terms used in Annex (5) attached hereto are hereby approved.

Article (2)

Scope of Application

The provisions hereof shall apply to all the products set forth in Annex (1) attached hereto with the exception of the products intended for any of the uses stated in Annex (3) and Annex (4) attached hereto.

Article (3)

Technical Requirements

1. The concentration of hazardous substances in a product may not exceed the ratios specified in Annex (2) attached hereto in all the products subject to the provisions hereof including the cables and spare parts necessary for their repair, reuse, update and leveraging the level of their performance.
2. The ratio of concentration of hazardous substances referred to in item (1) of the present Article shall be calculated by referral to the weight of homogenous substances in the part where such substances are used.

Article (4)

Supplier's Obligations

In any stage of the supply chain stages, the supplier shall:

1. Conduct its business through an individual company or corporation registered and holding a license according to the legislations applicable in the State.
2. Meet the requirements hereof particularly ensuring the availability of the requirements of the technical standard and the product conformity to the approved standards indicated in Annex (6)

attached hereto.

3. Cooperate with ESMA and the competent authorities and provide them with the required documents and inspection certificates when requested to ensure the product conformity to the requirements hereof.
4. Take the necessary measures to verify that the product conforms to any other requirements in accordance with the instructions of the competent authorities by virtue of the relevant legislations particularly the controls and requirements of the public health, safety and environment.

Article (5)

Conformity Assessment

For the purposes of granting the conformity certificate to the product, the following requirements must be fulfilled:

1. Conducting the product conformity assessment by an assessment entity acceptable to ESMA in accordance with the relevant legislations.
2. Meeting the requirements of the Emirates Conformity Assessment Scheme (ECAS) in the conformity form (A) approved by ESMA.
3. Meeting the requirements of the technical standards as well as the terms, conditions and specifications referred to herein.
4. Providing the following documents by the manufacturer:
    a. General description of the product
    b. Detailed description of the product design including a list of components and material used in its manufacturing.
    c. A list of the approved standards applied to the product to meet the requirements hereof.
    d. The product inspection and testing reports which should be acceptable to ESMA.
    e. Any document proving the product conformity to this Resolution such as the conformity permission, the substance permission, reports of inspection of substances or parts thereof or any other documents proving the product conformity to this Resolution in the conformity form (A). Such documents should indicate the ratios of hazardous substances used in the product without prejudice to the ratios set forth in Annex (2) attached hereto.
    f. Any other relevant documents or information ESMA deems necessary.

Article (6)

Monitoring and Surveying the Market

1. No product may be displayed or sold unless it meets the conditions hereof.
2. ESMA and the competent authorities, as appropriate, shall have the right to take samples from the product to verify its conformity to the requirements and conditions specified in this Resolution.
3. In case the product launched in the market does not meet the requirements hereof, ESMA or the competent authorities shall have the right to take the necessary measures. Such measures may include the withdrawal from market and cancellation of the conformity certificate issued to the supplier. The supplier shall be responsible for all the resulting costs.
4. The supplier of the product, from which the sample has been taken, shall be responsible for the unconformity of the product to the requirements hereof if the source of such product could not be identified and unless otherwise proved in the period set by ESMA or the competent authority.

Article (7)

Penalties and Fines

In case any breach of the provisions and requirements hereof is committed, ESMA or the competent authority, as appropriate, shall take the necessary action for removal of the results of such breach including the following:

1. To oblige the person responsible for the breach to withdraw the product from the market to remedy the breach or adjust its position, re-export the product to the country of origin if the product is imported or damage the product if it is local according to the procedures and within the period set by ESMA for this purpose.
2. To follow up with the implementation of the procedures required for the withdrawal of the product or any other procedures as requested by ESMA subject to the provisions of the paragraph (1) of this Article. The party committing the breach shall be responsible for all the resulting charges and costs as determined by ESMA.
3. Without prejudice to any more severe penalty set forth in the applicable legislations, whoever violates the provisions hereof shall be subject to the penalties set forth in the Federal Law No. (28) of 2001 on the Establishment of Emirates Authority for Standardization and Metrology, referred to above.

Article (8)

Grievance Procedures

1. The supplier may file a grievance against the decisions and acts issued by virtue of the items (1) and (2) of the Article (7) hereof subject to the compliance with the following conditions:
   a. Submission of a written application to ESMA within not more than (14) business days from the date of being notified of the decision or the act from which he grieves.
   b. Attachment of all the necessary documents explaining the grievance reasons.
2. A committee shall be formed in ESMA by a resolution from the Director General to settle the grievances filed under the provisions of the present Article. Such committee shall have in its membership specialized and qualified officers to study the grievance. The committee may seek the assistance of any other related person or neutral entity.
3. The committee shall take its decision regarding the submitted grievance within not more than (25) business days from the submission date. The decision taken in this regard shall be final, and the grievance shall be deemed refused if no action is taken during the period referred to above.
4. The Director General shall issue instructions specifying the number of the committee members, its work procedures, holding of its meetings, quorum required for the issuance of its decisions and all related matters.

Article (9)

General Provisions

1. For the purposes of implementation hereof, the approved standards as set forth in Annex (6) attached hereto shall be deemed as obligatorily applicable standards in the State, and the Board may approve any other standard required for the implementation of the provisions hereof in accordance with the provisions of Federal Law No. (28) of 2001 referred to above.
2. ESMA shall receive and study all the product registration and conformity applications and shall issue the necessary decisions in this regard. It may appoint a Conformity Assessment Body to assess the product conformity according to the applicable legislations.
3. ESMA shall set the procedures required for the implementation of the provisions hereof and may authorize any delegate any of these powers to any authority provided that the authorization should be specific and such authority shall exercise the powers delegated thereto under ESMA supervision.
4. The competent authority in each emirate shall be in charge of implementing the provisions

hereof. This shall include the inspection and testing to ensure the product conformity to the provisions hereof.

5. The attached annexes constitute an integral part hereof and shall be read in its context as one unit, and the Board may review and amend any of such annexes whenever required.
6. The provisions hereof shall not prevent the application of other laws and regulations of conformity and standards related to the product.
7. The provisions hereof shall not prevent the inspectors of the competent authorities from conducting other inspections of the product to ensure the product conformity to the conditions set forth in the other applicable resolutions and legislations.
8. All the entities subject to the provisions hereof should provide assistance and information required by the inspectors of the competent authorities to implement the provisions hereof.
9. If any case is not covered by the provisions hereof or if any dispute arises regarding their application, the case shall be referred to the Director General to take the action he deems appropriate regarding such case or dispute to achieve the public interest.

Article (10)

Transitional Provisions

1. The products specified in annexes (7) and (8) attached hereto shall be subject to a transitional period according to the date set for each of them, and the applicable resolutions and laws shall remain in force till such date.
2. Notwithstanding the provision of item (1) of the present Article, the provisions hereof may apply to the products referred to in annexes (7) and (8) attached hereto if the provider so wishes provided that he should comply with the provisions hereof.

Article (11)

Repeals

Any provisions in violation of or conflicting with the provisions hereof shall be repealed.

Article (12)

Publication and Entry into Force

This Resolution shall be published in the Official Gazette and shall come into force from the day following the publishing date.

Mohammed bin Rashid Al Maktoum

Prime Minister

Issued on 12 Rajab 1437 AH

Corresponding to 15 April 2017 AD

Annex 1

Annexes to the Cabinet Resolution No. (10) of 2017 Regarding the UAE Regulations for Control of the Ratios of Hazardous Substances in the Electric and Electronic Devices

Annex No. (1)

Electric and Electronic Devices

No.	Categories	Types
1	Large household appliances	• Large cooling appliances • Refrigerators • Freezers • Other large appliances used for refrigeration, conservation and storage of food • Washing machines • Clothes dryers • Dish washing machines • Cooking • Electric stoves • Electric hot plates • Microwaves • Other large appliances used for cooking and other processing of food • Electric heating appliances • Electric radiators • Other large appliances for heating rooms, beds, seating furniture • Electric fans • Air conditioner appliances • Other fanning, exhaust ventilation and conditioning equipment
2	Small household appliances	• Vacuum cleaners

		• Carpet sweepers • Other appliances for cleaning • Appliances used for sewing, knitting, weaving and other processing for textiles irons and other appliances for ironing, mangling and other care of clothing • Toasters • Fryers • Grinders, coffee machines and equipment for opening or sealing containers or packages • Electric knives • Appliances for hair-cutting, hair drying, tooth brushing, shaving, massage and other body care appliances • Clocks, watches and equipment for the purpose of measuring, indicating or registering time • Scales
3	IT and telecommunication equipment	• Centralized data processing • Mainframes • Minicomputers • Printer units • Personal computing • Personal computers (CUP, mouse, screen and keyboard included • Laptop computers (CUP, mouse, screen and keyboard included • Notebook computers • Notepad computers • Printers • Copying equipment • Electrical and electronic typewriters

		• Pocket and desk calculators • Other products and equipment for the collection, storage, processing, presentation or communication of information by electronic means user terminals and systems • Facsimile • Telex • Telephones • Pay telephones • Cordless telephones • Cellular telephones • Answering systems • Other products or equipment of transmitting sound, images or other information by telecommunications
4	Consumer equipment.	• Radio sets • Television sets • Video cameras • Video recorders • Hi-fi recorders • Audio amplifiers • Musical instruments • Other products or equipment for the purpose of recording or reproducing sound or images, including signals or other technologies for the distribution of sound and image than by telecommunications
5	Lighting equipment.	• Luminaries for fluorescent lamps with the exception of luminaries in households • Straight fluorescent lamps • Compact fluorescent lamps • High intensity discharge lamps

		• Other lighting or equipment for the purpose of spreading or controlling light with the exception of filament bulbs
6	Electrical and electronic tools (with the exception of large-scale stationary industrial tools)	• Drills • Saws • Sewing machines • Equipment for turning, milling, sanding grinding, sawing, cutting, shearing, drilling, making holes, punching, folding, bending or similar processing of wood, metal and other materials • Tools for riveting, nailing or screwing or removing rivets, nails, screws or similar uses tools for welding, soldering or similar use • Equipment for spraying, spreading dispersing or other treatment of liquid or gaseous substances by other means • Tools for mowing or other gardening activities
7	Toys leisure and sport equipment.	• Electric trains or car racing sets • Hand-held video game consoles • Video games • Computers for biking, diving, running and rowing • Sports equipment with electric or electronic components coin slot machines
8	Medical devices (with the exception of all implanted and infected products)	• Radiotherapy equipment • Cardiology • Dialysis • Pulmonary ventilators • Nuclear medicine • Laboratory equipment for in-vitro diagnosis

		• Analyzers • Freezers • Fertilization tests • Other appliances for detecting, preventing, monitoring, treating, alleviating illness, injury or disability
9	Monitoring and control instruments including industrial	• Smoke detector • Heating regulators • Thermostats • Measuring, weighing or adjusting appliances for household or laboratory equipment • Other monitoring and control instruments used in industrial installations (for example, in control panels)
10	Automatic dispensers	• Automatic dispensers for hot drinks • Automatic dispensers for hot or cold bottles or cans • Automatic dispensers for solid products • Automatic dispensers for money • All appliances which deliver automatically all kind of products
11	Other EEE not covered by any of the categories above or, and falling within the definition of Article one.	

Annex No. (2)

Hazardous Substances and their Ratio of Use in Electric and Electronic Appliances

S. No.	Hazardous Substances	Maximum allowed ratio
1	Lead (pb)	(0.1 %)
2	Mercury (Hg)	(0.1 %)
3	Cadmium (Cd)	(0.01 %)
4	Hexavalent chromium (Vi)	(0.1 %)
5	Polybrominated biphenyls (PBB)	(0.1 %)
6	Polybrominated biphenyl ethers (PBDE)	(0.1 %)
7	Bis(2-ethylhexyl) phthalate (DEHP)	(0.1 %)
8	Butyl benzyl phthalate (BBP)	(0.1 %)
9	Dibutyl phthalate (DBP)	(0.1 %)
10	Diisobutyl phthalate (DIBP)	(0.1 %)

Annex No. (3)

Uses exempted from the Compliance with Hazardous Substance Usage Ratios

- Mercury in metal halide lamps (MH).
- Mercury in other discharge lamps for special purposes not specifically mentioned In this Annex
- Lead in glass of cathode tubes.

1. Lead in glass of fluorescent tubes not exceeding 0.2 % by weight.
2. Lead as an alloying element in steel for machining purposes and in galvanized steel. Containing up to 0,35 % lead by weight
3. Lead as an alloying element in aluminum containing up to 0,4 % lead by weight
4. Copper alloy containing up to 4 % lead by weight.
5. Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead).
6. Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications.
7. Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound
8. Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher.
9. Cadmium and its compounds in electric contacts.
10. Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0.75 % by weight in the cooling solution.
11. Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications.
12. Lead in white glasses used for optical applications.
13. Cadmium and lead in filter glasses and glasses used for reflectance standards.
14. Lead in white glasses used for optical applications.
15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
16. Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications.
17. Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BA Si2 O5 :Pb).
18. Lead and cadmium in printing inks for the applications of enamels on glasses, such as borosilicate

and soda lime glasses.

19. Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.
20. Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring.
21. Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC
22. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100dB (A) and more
23. Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)
24. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes.
25. Lead in solders for the soldering of thin copper wires of 100μm diameter and less in power transformers.
26. Lead in cermet-based trimmer potentiometer elements.
27. Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body.
28. Cadmium and cadmium oxide in thick film pastes used on aluminum bonded beryllium oxide.
29. Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60:

30.	P ≤ 155W	30 mg.
31.	155W < P ≤ 405W	40 mg.
32.	P > 405W	40 mg.

33. Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):

34.	P ≤ 155W	25 mg.
35.	155W < P ≤ 405W	30 mg.

36. P > 405W 40 mg.

37. Single capped plug-in type compact fluorescent lamps (non - integrated control gear) for general lighting purpose, not exceeding a mercury content per burner.

- & 30W and < 150 W 5 mg.

- < 30 W 2.5 mg.

- < 30 W with long lifetime (> 15 khrs) 3.5 mg.

- With circular or square structure shape or other non-linear with tube.

Diameter ≤ 17 mm 7 mg.

Annex No. (4)

Uses of Medical Appliances and Control Tools Exempted from the Compliance with Hazardous Substance Usage Ratios

Equipment utilizing or detecting ionizing radiation:

1. Lead, cadmium and mercury in detectors for ionising radiation.
2. Lead bearings in X-ray tubes
3. Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.
4. Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons.
5. Lead in shielding for ionising radiation
6. Lead in X-ray test objects
7. Lead stearate X-ray diffraction crystals
8. Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers

Sensors, detectors and electrodes

9. Lead and cadmium in ion selective electrodes including glass of pH electrodes
10. Lead anodes in electrochemical oxygen sensors
11. Lead, cadmium and mercury in infra-red light detectors
12. Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.

Others

13. Cadmium in helium-cadmium lasers
14. Lead and cadmium in atomic absorption spectroscopy lamps
15. Lead in alloys as a superconductor and thermal conductor in MR
16. Lead and cadmium in metallic bonds to superconducting magnetic materials in MRI and SQUID detectors.
17. Lead in counterweights
18. Lead in single crystal piezoelectric materials for ultrasonic transducers
19. Lead in solders for bonding to ultrasonic transducers
20. Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay.

21. Lead in solders in portable emergency defibrillators
22. Lead in solders of high performance infrared imaging modules to detect in the range 8-14 μm.
23. Lead in Liquid crystal on silicon (LCoS) displays.
24. Cadmium in X-ray measurement filters.
25. Cadmium in phosphor coatings in image intensifiers for X-ray images4
26. Lead acetate marker for use in stereotactic head frames for use with CT and MRI and in positioning systems for gamma beam and particle therapy equipment.5
27. Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation6
28. Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers7
29. Lead in the surface coatings of pin connector systems requiring nonmagnetic connectors which are used durably at a temperature below - 20 °C under normal operating and storage conditions8.
30. Lead in:
31. Solders on printed circuit boards
32. Termination coatings of electrical and electronic components and coatings of printed circuit boards, - solders for connecting wires and cables, solders connecting transducers and sensors
33. That are used durably at a temperature below - 20 °C under normal operating and storage conditions9.
34. Lead in:
35. Solders,

    Termination coatings of electrical and electronic components and printed circuit boards,

    Connections of electrical wires, shields and enclosed connectors, which are used in:

    Magnetic fields within the sphere of 1 m radius around the isocentre of the magnet in medical magnetic resonance imaging equipment, including patient monitors designed to be used within this sphere, or

    Magnetic fields within 1 m distance from the external surfaces of cyclotron magnets, magnets for beam transport and beam direction control applied for particle therapy.10
36. Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards 11.
37. Lead in alloys, as a superconductor or thermal conductor, used in cryo-cooler cold heads and/or in cryo-cooled cold probes and/or in cryo-cooled equipotential bonding systems, in medical

devices (category 8) and/or in industrial monitoring and control instruments. 12.

38. Hexavalent chromium in alkali dispensers used to create
39. photocathodes in X-ray image intensifiers13.
40. Lead, cadmium and hexavalent chromium in reused spare parts, recovered from medical devices placed on the market before 22 July 2014 and used in category 8 equipment placed on the market before 22 July 2021, provided that reuse takes place in auditable closed-loop business-to-business return systems, and that the reuse of parts is notified to the consumer14.
41. Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment15.
42. Lead in solders on populated printed circuit boards used in Directive 93/42/EEC class IIa and IIb mobile medical devices other than portable emergency defibrillators.16
43. Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi2O5:Pb) phosphors17.
44. Mercury in cold cathode fluroscent lamps (CCFLs) for back-lighting liquid crystal displays, not exceeding 5 mg per lamp, used in industrial monitoring and control instruments18.
45. Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments.19
46. Lead in platinised platinum electrodes used for conductivity measurement where at least one of the following conditions applies:

    Wide-range measurements with a conductivity range covering more than order of magnitude (e.g. range between mS/m and mS/m) in laboratory applications for unknown concentrations; measurements of solutions where an accuracy of +/-1% of the sample range and where high corrosion resistance of the electrode are required for any of the following:

    1. solutions with an acidity < pH 1;
    2. solutions with an alkalinity > pH 13;
    3. corrosive solutions containing halogen gas; measurements of conductivities above 100 mS/m that must be performed with portable instruments.20.
47. Lead in solder in one interface of large area stacked die elements with more than 500 interconnects per interface which are used in x-ray detectors of computed tomography and X-ray systems.21.
48. Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present:

A compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3 mm/MCP (detector thickness + space for installation of the MCP); a maximum of 6 mm in total; and an alternative design yielding more space for the detector is scientifically and technically impracticable.

Two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies:

a. A response time shorter than 25 ns;
b. A sample detection area larger than 149 mm2;
c. A multiplication factor larger than 1.3 x 103.
d. A response time shorter than 5 ns for detecting electrons or ions.
e. A sample detection area larger than 314 mm2 for detecting electrons or ions.
f. A multiplication factor larger than 4.0 x 107.22

Annex No. (5)

Definitions of Technical Terms

1	Large-Scale Stationary Industrial Tools	Means a large-scale assembly of machines, equipment, and/or components, functioning together for a specific application, permanently installed and de-installed by professionals at a given place, and used and maintained by professionals in an industrial manufacturing facility or research and development facility.
2	Large-Scale Fixed Installations	Means a large-scale combination of several types of apparatus and, where applicable, other devices, which are assembled and installed by professionals, intended to be used permanently in a pre-defined and dedicated location, and de-installed by professionals.
3	Cables:	Means all cables with a rated voltage of less than 250 volts that serve as a connection or an extension to connect EEE to the electrical outlet or to connect two or more EEE to each other
4	Homogeneous Material:	Means one material of uniform composition throughout or a material, consisting of a combination of materials that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes.
5	Spare Part:	Means a separate part of an EEE that can replace

		a part of an EEE. The EEE cannot function as intended without that part of the EEE. The functionality of EEE is restored or is upgraded when the part is replaced by a spare part.
6	Non-road mobile machinery	Shall mean any mobile machine, transportable industrial equipment or vehicle with or without body work, not intended for the use of passenger - or goods - transport on the road.

Annex No. (6)

Approved Standards

S. No.	Standard number	Standard Description
1.	UAE.S IEC 62321 Edition 1.0 2008-12	Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
2.	UAE.S IEC 62474 Edition 1.0 2012-03	Material declaration for products of and for the electro technical industry.
3.	UAE.S IEC / TR 62476 Edition 1.0 2010-02	Guidance for evaluation of products with respect to substance-use restrictions in electrical and electronic products.
4.	UAE.S EN 50581	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Annex No. (7)

The time schedule for the restrictions on the use of cadmium (Cd), lead (Pb), mercury (Hg), Hexavalent chromium (Vi) Cr, Polybrominated biphenyls (PBB) and Polybrominated biphenyl ethers (PBDE) in the products.

Group	Products	Date of Restriction
A	- Medical appliances - Medical appliances for diagnostic tests - Control and monitoring equipment - Industrial control and monitoring equipment	1 January 2020
B	Cables and spare parts of the products mentioned in group (a) launched in markets	1 January 2022
C	Products covered by this Resolution other than those stated in group (a) above as well as the cables and spare parts intended for repair purposes, for the update of product functions or leveraging their level of capacity with the exception of the products of category (11) of annex No. (1)	1 January 2018
D	Products of category (11) of annex No. (1) launched in markets	1 January 2020

Annex No. (8)

The time schedule for the restrictions on the use of Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Diisobutyl phthalate (DIBP) in the products.

Group	Products	Date of Restriction
A	- Medical appliances - Medical appliances for diagnostic tests - Control and monitoring equipment - Industrial control and monitoring equipment	1 January 2022
B	Cables and spare parts of the products mentioned in group (a) launched in markets	1 January 2022
C	Products covered by this Resolution other than those stated in group (a) above as well as the cables and spare parts intended for repair purposes, for the update of product functions or leveraging their level of capacity with the exception of the products of category (11) of annex No. (1)	1 January 2020
D	Products of category (11) of annex No. (1) launched in markets	1 January 2020