

قرار مجلس الوزراء رقم ( ) لسنة 2015  
بشأن النظام الإماراتي لتقييد نسب المواد الخطرة في الأجهزة الكهربائية والإلكترونية

**مجلس الوزراء:**

- بعد الاطلاع على الدستور،
  - وعلى القانون الاتحادي رقم (1) لسنة 1972، بشأن اختصاصات الوزارات وصلاحيات الوزراء، والقوانين المعدلة له،
  - وعلى القانون الاتحادي رقم (28) لسنة 2001، بإنشاء هيئة الإمارات للمواصفات والمقاييس، والقوانين المعدلة له،
  - وعلى القانون الاتحادي رقم (24) لسنة 2006، بشأن حماية المستهلك، والقوانين المعدلة له،
  - وبناء على موافقة مجلس الوزراء،
- قرر:

**Article (1)**

**Definitions**

For the purpose of this document, the following terms and definitions apply:

**Country:** United Arab Emirates.

**ESMA:** Emirates Authority for Standardization & Metrology, the national authority responsible for implementing this scheme.

**Board:** Board of Directors of the Authority.

**Director General:** Director General of the Authority.

**Competent Authorities:** Federal and local governmental authorities of the country who have been authorized to implement the requirements of this scheme.

**Approved Standard:** A standard that is adopted by ESMA as a UAE standard.

**Mandatory UAE Standard (Technical Scheme):** Approved UAE standard which will be mandatorily applied as per the resolution issued by the Cabinet.

**Conformity Certificate:** A certificate issued by ESMA to the given product ensuring that the product complies with the requirements of this scheme.

**Conformity Assessment Form A:** It's a form of conformity describing the procedure which the manufacturer or his authorized representative use to

confirm and acknowledge that the concerned products meet the requirements of this technical regulation.

**Emirates Quality Mark:** A quality mark granted by ESMA indicating that the given product complies with the requirements stated in the accredited standard.

**Electrical and electronic equipment or EEE :** means equipment which is dependent on electrical currents or electro-magnetic fields in order to work properly, and designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current.

**Product (s):** means new electrical and electronic equipment (EEE) and its spare parts.

**Supplier:** Manufacturer, carrier, packer, installer, processor, agent, warehouse operator, main or secondary distributor whose activities affect the features of the product; or any legal or commercial agent in charge of importing products governed by the provisions of these Regulations.

**Consumer:** Any person obtaining a commodity or service, paid or unpaid, to satisfy his/her own needs or another person's needs.

**Supply Chain:** All stages that the product goes through after its production down to the consumer including import, storage operations, wholesale and retail, installment, delivery, and any other relevant processes.

**ECAS:** The system that verifies the fulfillment of the approved standards, either directly or indirectly like inspection, testing, examination, calibration or granting the products conformity certificates, and which is applied by the authority according to the general scheme of Emirates Conformity Assessment Scheme (ECAS) that has been granted by Board Directors of the Authority by decision No. (8) For the year 2009.

**Technical Specification:** A document that describes technical requirements of the product, process & service.

**Market Surveillance:** Activities carried out and measures taken by public authorities to ensure that EEE complies with the requirements set out in this Directive and do not cause health and safety implications, or other issues of public health protection.

**Recall:** means any measure aimed at achieving the return of a product that has already been made available to the end user

**Withdrawal:** means any measure aimed at preventing a product in the supply chain from being made available on the market

## **Article (2)**

### **Scope**

**2.1** This scheme shall apply to the products falling under the categories as mentioned in annex 1. This scheme aims to restrict the use of hazardous substances in electrical and electronic equipment and contributes to the protection of human health and the environment.

**2.2** This scheme does not apply to:

2.2.1 Products which are necessary for the protection of the essential interests of the security of the country, including arms, munitions and war material intended for specifically military purposes.

2.2.2 Products designed to be sent into space.

2.2.3 Products which are specifically designed, and are to be installed, as part of another type of equipment that is excluded or does not fall within the scope of this standard, which can fulfill its function only if it is part of that equipment, and which can be replaced only by the same specifically designed equipment.

2.2.4 Large-scale stationary industrial tools.

2.2.5 Large-scale fixed installations.

2.2.6 Means of transport for persons or goods, excluding electric two-wheel vehicles which are not type-approved.

2.2.7 Non-road mobile machinery made available exclusively for professional use.

2.2.8 Active implantable medical devices.

2.2.9 Photovoltaic panels intended to be used in a system that is designed, assembled and installed by professionals for permanent use at a defined location to produce energy from solar light for public, commercial, industrial and residential applications.

2.2.10 Products specifically designed solely for the purposes of research and development only made available on a business-to-business basis.

**Article (3)**  
**Responsibilities of the Supplier**

The supplier shall ensure the following at any stage of the supply chain:

- 3.1** Comply with the requirements of this scheme.
- 3.2** Shall extend full cooperation to the staff of ESMA and the competent authorities and shall keep and provide the technical documents including the test reports, when required to demonstrate the conformity of this scheme.

## **Article (4)**

### **Technical Requirements**

**4.1** All products, including cables and spare parts for their repair, their reuse, updating of their functionalities or upgrading of their capacity, shall not exceed the specified concentrations for the hazardous substances listed in Annex (2).

**4.2** For the purposes of this scheme, no more than the maximum concentration value by weight in homogeneous material as specified in Annex (2) shall be tolerated.

## **Article (5)**

### **Conformity Assessment**

**5.1** Product(s) shall comply with Model A of conformity assessment.

**5.2** All products covered by this scheme shall comply with the technical requirements mentioned in clauses 4.1 and 4.2 of this scheme.

**5.3** The Manufacturer shall draw up a written Declaration of Conformity for each electrical equipment Model .The Manufacturer Declaration of Conformity shall identify the substances maximum concentration values in annex 2

**5.4** The Manufacturer shall submit at least the following technical documents:

- A general description of electrical equipment;
- A detailed description with conceptual design and manufacturing drawings, including a list of components, materials, sub-assemblies and circuits used in the electrical equipment;
- A list of the UAE Standards applied to meet the requirements of the Technical Regulations
- Test reports

## **Article (6)**

### **Surveillance and Market Monitoring**

**6.1** ESMA and the competent authorities have the right to withdraw the product sample(s) from the market in order to check their compliance to the requirements of this scheme.

**6.2** It is prohibited to display or sell any product(s) unless it is registered under ECAS or has quality mark.

**6.3** In case of non-conformities, if the source of non-conformity cannot be traced then the owner of the shop, from which the sample(s) is collected, will be responsible for the non-conformity unless it is proved otherwise within the stipulated time.

**6.4** In the case of non-conformity, ESMA has the right to take appropriate measures against the non-complying product(s). Such measures include withdrawal or recall of the product or cancellation of conformity certificate. (supplier will be responsible of the non-complying products).

## **Article (7)**

### **Penalties and Violations**

**7.1** In case of any violation(s) to any of the requirements of this scheme, ESMA or the competent authority shall take appropriate action(s), to resolve the issue and remove its traces from market, which include:

- 7.1.1 Instructing the responsible supplier to withdraw the product from market and re-export them to the country of origin.
- 7.1.2 Implement all the required actions to withdraw and/or recall the product(s) or any other necessary corrective actions.

## **Article (8)**

### **Final Provisions**

**8.1** ESMA shall take appropriate measures to implement this scheme, and grant authorization to the competent authorities to implement the requirements of this scheme.

**8.2** ESMA is responsible for receiving, registering and studying the application from the suppliers. ESMA has also right to grant authorization to competent authorities for receiving, registering and studying the application from the suppliers.

**8.3** The competent authority of individual emirate is responsible for the implementation of this scheme. This includes inspection, testing and controlling to comply with the requirement of this scheme.

**8.4** The Board of Directors has the right to adopt any other standard(s) which are required to implement this scheme.

**8.5** The annexes attached to this document shall be considered as a part of this scheme, and the Board of Directors has the right to amend any Annex, when required.

**8.6** This scheme does not prevent the staff of the competent authorities to conduct tests stated in other laws or schemes.

**8.7** All the stakeholders, related to this scheme, shall extend full cooperation and provide the required information to implement this scheme.

**8.8** Any issue that cannot be resolved by this scheme, shall be referred to ESMA Director General for the appropriate decision in the best interest of the public.

### **Article (9)**

#### **Provisions for the Transition Period**

### **Article (9)**

#### **Provisions for the Transition Period**

**9.1** The supplier shall register the product(s) with ECAS within one year from the date of publication of this scheme in The Official Gazette.

**9.2** The products available in the market before the date of the publication are allowed to sell until 1<sup>st</sup> of January 2018.

**9.3** The requirement stated in 4.1 shall not apply to the following products placed on the market before 01 January 2020:

9.3.1 Medical devices.

9.3.2 In vitro diagnostic medical devices.

9.3.3 Monitoring and control instruments.

9.3.4 Industrial monitoring and control instruments.

**9.4** Paragraph 9.1 shall not apply to products listed in Annex 3, and Annex 4.

### **Article (10)**

#### **Cancellation**

The requirements stated in any other scheme or law will be cancelled if such requirement(s) contradict with the requirements of this scheme.

### **Article (11)**

#### **Publication and Implementation**

This scheme is published in the Official Gazette and all the concerned parties shall implement it.



## Annex 1

Categories of Electrical and Electronic Equipment:

No.	Categories	Types
1	Large household appliances	<ul style="list-style-type: none"> <li>○ Large cooling appliances</li> <li>○ Refrigerators</li> <li>○ Freezers</li> <li>○ Other large appliances used for refrigeration, conservation and storage of food</li> <li>○ Washing machines</li> <li>○ Clothes dryers</li> <li>○ Dish washing machines</li> <li>○ Cooking</li> <li>○ Electric stoves</li> <li>○ Electric hot plates</li> <li>○ Microwaves</li> <li>○ Other large appliances used for cooking and other processing of food</li> <li>○ Electric heating appliances</li> <li>○ Electric radiators</li> <li>○ Other large appliances for heating rooms, beds, seating furniture</li> <li>○ Electric fans</li> <li>○ Air conditioner appliances</li> <li>○ Other fanning, exhaust ventilation and conditioning equipment</li> </ul>
2	Small household appliances	<ul style="list-style-type: none"> <li>○ Vacuum cleaners</li> <li>○ Carpet sweepers</li> <li>○ Other appliances for cleaning</li> <li>○ Appliances used for sewing, knitting, weaving and other processing for textiles</li> <li>○ Irons and other appliances for ironing, mangling and other care of clothing</li> <li>○ Toasters</li> <li>○ Fryers</li> <li>○ Grinders, coffee machines and equipment for opening or sealing containers or packages</li> <li>○ Electric knives</li> </ul>

		<ul style="list-style-type: none"> <li>○ Appliances for hair-cutting, hair drying, tooth brushing, shaving, massage and other body care appliances</li> <li>○ Clocks, watches and equipment for the purpose of measuring, indicating or registering time</li> <li>○ Scales</li> </ul>
3	IT and telecommunication equipment.	<ul style="list-style-type: none"> <li>○ Centralized data processing:</li> <li>○ Mainframes</li> <li>○ Minicomputers</li> <li>○ Printer units</li> <li>○ Personal computing:</li> <li>○ Personal computers (CPU, mouse, screen and keyboard included)</li> <li>○ Laptop computers (CPU, mouse, screen and keyboard included)</li> <li>○ Notebook computers</li> <li>○ Notepad computers</li> <li>○ Printers</li> <li>○ Copying equipment</li> <li>○ Electrical and electronic typewriters</li> <li>○ Pocket and desk calculators</li> <li>○ Other products and equipment for the collection, storage, processing, presentation or communication of information by electronic means</li> <li>○ User terminals and systems</li> <li>○ Facsimile</li> <li>○ Telex</li> <li>○ Telephones</li> <li>○ Pay telephones</li> <li>○ Cordless telephones</li> <li>○ Cellular telephones</li> <li>○ Answering systems</li> <li>○ Other products or equipment of transmitting sound, images or other information by telecommunications</li> </ul>

4	Consumer equipment.	<ul style="list-style-type: none"> <li>○ Radio sets</li> <li>○ Television sets</li> <li>○ Video cameras</li> <li>○ Video recorders</li> <li>○ Hi-fi recorders</li> <li>○ Audio amplifiers</li> <li>○ Musical instruments</li> <li>○ 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</li> </ul>
5	Lighting equipment.	<ul style="list-style-type: none"> <li>○ Luminaires for fluorescent lamps with the exception of luminaires in households</li> <li>○ Straight fluorescent lamps</li> <li>○ Compact fluorescent lamps</li> <li>○ High intensity discharge lamps, including pressure sodium lamps and metal halide lamps</li> <li>○ Low pressure sodium lamps</li> <li>○ Other lighting or equipment for the purpose of spreading or controlling light with the exception of filament bulbs</li> </ul>
6	Electrical and electronic tools (with the exception of large-scale stationary industrial tools)	<ul style="list-style-type: none"> <li>○ Drills</li> <li>○ Saws</li> <li>○ Sewing machines</li> <li>○ Equipment for turning, milling, sanding, grinding, sawing, cutting, shearing, drilling, making holes, punching, folding, bending or similar processing of wood, metal and other materials</li> <li>○ Tools for riveting, nailing or screwing or removing rivets, nails, screws or similar uses Tools for welding, soldering or similar use</li> <li>○ Equipment for spraying, spreading, dispersing or other treatment of liquid or gaseous substances by other means</li> <li>○ Tools for mowing or other gardening activities</li> </ul>

7	Toys leisure and sport equipment.	<ul style="list-style-type: none"> <li>○ Electric trains or car racing sets</li> <li>○ Hand-held video game consoles</li> <li>○ Video games</li> <li>○ Computers for biking, diving, running and rowing</li> <li>○ Sports equipment with electric or electronic components</li> <li>○ Coin slot machines</li> </ul>
8	Medical devices (with the exception of all implanted and infected products)	<ul style="list-style-type: none"> <li>○ Radiotherapy equipment</li> <li>○ Cardiology</li> <li>○ Dialysis</li> <li>○ Pulmonary ventilators</li> <li>○ Nuclear medicine</li> <li>○ Laboratory equipment for in-vitro diagnosis</li> <li>○ Analyzers</li> <li>○ Freezers</li> <li>○ Fertilization tests</li> <li>○ Other appliances for detecting, preventing, monitoring, treating, alleviating illness, injury or disability</li> </ul>
9	Monitoring and control instruments including industrial monitoring and control instrument	<ul style="list-style-type: none"> <li>○ Smoke detector</li> <li>○ Heating regulators</li> <li>○ Thermostats</li> <li>○ Measuring, weighing or adjusting appliances for household or laboratory equipment</li> <li>○ Other monitoring and control instruments used in industrial installations (for example, in control panels)</li> </ul>
10	Automatic dispensers	<ul style="list-style-type: none"> <li>○ Automatic dispensers for hot drinks</li> <li>○ Automatic dispensers for hot or cold bottles or cans</li> <li>○ Automatic dispensers for solid products</li> <li>○ Automatic dispensers for money</li> <li>○ All appliances which deliver automatically all kind of products</li> </ul>
11	Other EEE not covered by any of the categories above	

## Annex 2

Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in homogeneous material.

- Lead (0.1%).
- Mercury (0.1%).
- Cadmium (0.01 %.)
- Hexavalent chromium (0.1%).
- Polybrominated biphenyls (PBB) (0.1%).
- Polybrominated biphenyl ethers (PBDE) (0.1%).
- Bis(2-ethylhexyl) phthalate (DEHP) (0,1 %)
- Butyl benzyl phthalate (BBP) (0,1 %)
- Dibutyl phthalate (DBP) (0,1 %)
- Diisobutyl phthalate (DIBP) (0,1 %)

The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including *in vitro* medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

The restriction of DEHP, BBP, DBP and DIBP shall not apply to cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market before 22 July 2019, and of medical devices, including *in vitro* medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, placed on the market before 22 July 2021.

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### **Annex 3**

#### **Applications exempted from the restriction in Article 4(1)**

- 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 ray tubes.
- = Lead in glass of fluorescent tubes not exceeding 0,2 % by weight.
- Lead as an alloying element in steel for machining purposes and in galvanised steel.  
containing up to 0,35 % lead by weight
- Lead as an alloying element in aluminium containing up to 0,4 % lead by weight
- Copper alloy containing up to 4 % lead by weight.
- Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead).
- Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications.
- 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.
- Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher.
- Cadmium and its compounds in electrical contacts.
- 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.
- Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications.
- Lead in white glasses used for optical applications.

- Cadmium and lead in filter glasses and glasses used for reflectance standards.
- Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
- Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications.
- 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 ( $\text{BaSi}_2\text{O}_5:\text{Pb}$ ).
- Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses.
- Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.
- Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring.
- Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC ( 1 ).
- 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 100 dB (A) and more.
- Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting).
- Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes.
- Lead in solders for the soldering of thin copper wires of 100  $\mu\text{m}$  diameter and less in power transformers.
- Lead in cermet-based trimmer potentiometer elements
- Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body.
- Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide.

## Annex 4

### **Applications exempted from the restriction in Article 4(1) specific to medical devices and monitoring and control instruments**

#### Equipment utilizing or detecting ionizing radiation

1. Lead, cadmium and mercury in detectors for ionizing 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 ionizing 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

- 1a. Lead and cadmium in ion selective electrodes including glass of pH electrodes.
- 1b. Lead anodes in electrochemical oxygen sensors.
- 1c. Lead, cadmium and mercury in infra-red light detectors.
- 1d. Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.

#### Others

9. Cadmium in helium-cadmium lasers.
10. Lead and cadmium in atomic absorption spectroscopy lamps.
11. Lead in alloys as a superconductor and thermal conductor in MRI.
12. Lead and cadmium in metallic bonds to superconducting materials in MRI and SQUID detectors.
13. Lead in counterweights.
14. Lead in single crystal piezoelectric materials for ultrasonic transducers.
15. Lead in solders for bonding to ultrasonic transducers.
16. 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.
17. Lead in solders in portable emergency defibrillators.
18. Lead in solders of high performance infrared imaging modules to detect in the range 8-14  $\mu\text{m}$ .
19. Lead in Liquid crystal on silicon (LCoS) displays.
20. Cadmium in X-ray measurement filters.



## Annex 5

### Technical Definitions

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 Installation:** 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 made available exclusively for professional use:** means machinery, with an on-board power source, the operation of which requires either mobility or continuous or semi-continuous movement between a succession of fixed working locations while working, and is made available exclusively for professional use.

## **Annex 6**

### **Applicable Standards**

**IEC 62321 Edition 1.0 2008-12** Electrotechnical products – Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers).

**IEC 62474 Edition 1.0 2012-03** Material declaration for products of and for the electrotechnical industry.

**IEC/TR 62476 Edition 1.0 2010-02** Guidance for evaluation of products with respect to substance-use restrictions in electrical and electronic products

**IEC 50581: 2012** Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.