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Title: UAE RoHS - Implementation Guidelines
Reference(s): --
Remarks: This document provides guiding principles for the implementation of the UAE RoHS – Restriction of Hazardous Substances – Decision No. 10 of 2017.

I. Scope

The UAE RoHS regulation covers all EEE (Electrical and Electronic Equipment) as detailed in Table 1.

Definition:

EEE (Electrical and Electronic Equipment) means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current.

Dependent means, with regard to EEE, needing electric currents or electromagnetic fields to fulfil at least one intended function.

Table 1

Sr.	Category	Types
1	Large household appliances	<ul style="list-style-type: none">• Large cooling appliances• Refrigerators• Freezers• Other large appliances used for refrigeration, conservation and storage of food• Washing machines• Clothes dryers• Dishwashing machines• Cookers• 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	<ul style="list-style-type: none">• 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



		<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Centralized data processing:• Mainframes• Minicomputers• Printer units• Personal computing:• Personal computers (CPU, mouse, screen and keyboard included)• Laptop computers (CPU, mouse, screen and keyboard included)• Notebook computers• Notepad computers• Printers• Copying equipment• Electrical and electronic typewriters• Pocket and desk calculators• And other products and equipment for the collection, storage, processing, presentation or communication of information by electronic means• User terminals and systems• Facsimile machine (fax)• Telex• Telephones• Pay telephones• Cordless telephones• Cellular telephones• Answering systems• And other products or equipment of transmitting sound, images or other information by telecommunications
4	Consumer equipment and photovoltaic panels	<ul style="list-style-type: none">• Radio sets• Television sets• Video cameras• Video recorders• Hi-fi recorders• Audio amplifiers• Musical instruments• And 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• Photovoltaic panels
5	Lighting equipment	<ul style="list-style-type: none">• Luminaires for fluorescent lamps with the exception of luminaires in households• Straight fluorescent lamps• Compact fluorescent lamps• High intensity discharge lamps, including pressure sodium lamps and metal halide lamps• Low pressure sodium lamps



		<ul style="list-style-type: none"> • Other lighting or equipment for the purpose of spreading or controlling light with the exception of filament bulbs
6	Electrical and electronic tools (with exception of large-scale stationary industrial tools)	<ul style="list-style-type: none"> • 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 sports equipment	<ul style="list-style-type: none"> • Electric trains or car racing sets • Hand-held video game consoles • Video games • Computers for biking, diving, running, rowing, etc. • Sports equipment with electric or electronic components • Coin slot machines
8	Medical devices (with exception of all implanted and infected products)	<ul style="list-style-type: none"> • Radiotherapy equipment • Cardiology equipment • Dialysis equipment • Pulmonary ventilators • Nuclear medicine equipment • 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	<ul style="list-style-type: none"> • Smoke detector • Heating regulators • Thermostats • Measuring, weighing or adjusting appliances for household or as laboratory equipment • Other monitoring and control instruments used in industrial installations (e.g. in control panels)
10	Automatic dispensers	<ul style="list-style-type: none"> • 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 kinds of products
11	Other EEE not covered by any of the categories above.	

II. Exemptions

Sr.	Category	Description/Definition
1	Military / Security	Equipment which is 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	Outer Space	Equipment designed to be sent into space.
3	Special Design	Equipment which is specifically designed, and is to be installed, as part of another type of equipment that is excluded or does not fall within the scope of this Regulation, which can fulfil its function only if it is part of that equipment, and which can be replaced only by the same specifically designed equipment.
4	Large-scale stationary industrial tools	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.
5	Large-scale fixed installations	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.
6	Non-type approved means of transport	Means of transport for persons or goods, excluding electric two-wheel vehicles which are not type-approved.
7	Non-road mobile machinery made available exclusively for professional use	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.
8	Active implantable medical devices	Any medical device which is intended to be totally or partially introduced, surgically or medically, into the human body or by medical intervention into a natural orifice, and which is intended to remain after the procedure.
9	Professional photovoltaic panels	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.
10	R&D Equipment for B2B basis	Equipment specifically designed solely for the purposes of research and development only made available on a business-to-business (B2B) basis,
11	Products for general lighting	Equipment currently covered under the UAE Cabinet Decision No. 34 of 2012.

III. Restricted Substances

The UAE regulation intention is to control or limit presence of the following hazardous substances on electrical and electronic devices:

1. Lead (Pb)
2. Mercury (Hg)
3. Cadmium (Cd)
4. Hexavalent chromium (Vi)
5. Polybrominated biphenyls (PBB)
6. Polybrominated biphenyl ethers (PBDE)



7. Bis (2-ethyhexyl) phthalate (DEHP)
8. Butyl benzyl phthalate (BBP)
9. Dibutyl phthalate (DBP)
10. Diisobutyl phthalate (DIBP)

IV. Applicable Standards

IEC/TR 62476:2010	Guidance for the evaluation of products with respect to substance-use restrictions in electrical and electronic products
IEC 63000:2016	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
IEC 62321:2008	Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
IEC 62321-1:2013	Determination of certain substances in electrotechnical products - Part 1: Introduction and overview
IEC 62321-2:2013	Determination of certain substances in electrotechnical products - Part 2: Disassembly, disjointment and mechanical sample preparation
IEC 62321-3-1:2013	Determination of certain substances in electrotechnical products - Part 3-1: Screening - Lead, mercury, cadmium, total chromium and total bromin by X-ray fluorescence spectrometry
IEC 62321-3-2:2013	Determination of certain substances in electrotechnical products - Part 3-2: Screening - Total bromine in polymers and electronics by Combustion - Ion Chromatography
IEC 62321-4:2017	Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS
IEC 62321-5:2013	Determination of certain substances in electrotechnical products - Part 5: Cadmium, lead and chromium in polymers and electronics and cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS
IEC 62321-6:2015	Determination of certain substances in electrotechnical products - Part 6: Polybrominated biphenyls and polybrominated diphenyl ethers in polymers by gas chromatography - mass spectrometry (GC-MS)
IEC 62321-7-1:2015	Determination of certain substances in electrotechnical products - Part 7-1: Hexavalent chromium - Presence of hexavalent chromium (Cr(VI)) in colourless and coloured corrosion-protected coatings on metals by the colorimetric method



IEC 62321-7-2:2017	Determination of certain substances in electrotechnical products - Part 7-2: Hexavalent chromium - Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method
IEC 62321-8:2017	Determination of certain substance in electrotechnical products - Part 8: Phthalates in polymers by gas chromatography-mass spectrometry (GC-MS), gas chromatography-mass spectrometry using a pyrolyzer/thermal desorption accessory (Py/TD-GC-MS)
IEC 62474:2012	Material declaration for products of and for the electrotechnical industry
IEC TR 62474-1:2015	Material declaration for products of and for the electrotechnical industry - Part 1: Guidance for the implementation of IEC 62474

V. Conformity Assessment

Option 1: Mandatory under ECAS	Option 2: Model H under EQM
<ol style="list-style-type: none"> 1. Risk assessment to be submitted in case the full product assessment for RoHS is not completed. 2. Applicant issues a Declaration of Conformity (see attached) including only critical components. 3. Applicant submits a full RoHS test report of the complete product (if available). Otherwise (3) test reports of the critical component to be submitted once requested by CAB. 4. ESMA verifies compliance to the set limits. 5. ESMA issues the certificate 6. Valid for one year only 	<ol style="list-style-type: none"> 1. Applicant issues a Declaration of Conformity (see attached) 2. Applicant submits risk assessment documents based on IEC 63000 and IEC 62476 3. Technical Audit and verification through site visit. 4. ESMA verifies compliance to requirements and issue the certificate and License to use EQM 5. Valid for 3 years

VI. Technical Documentation

The following documents needs to be submitted during the application:

- Declaration of Compliance (sample form in Annex A)
- General description of the electrical equipment
- Detailed description with conceptual design and manufacturing drawings, including a list of components, materials, sub-assemblies and circuits used in the electrical equipment
- Test report accepted by ESMA – **Internal Laboratory*** or ISO 17025 Accredited Laboratory
- Risk assessment procedure, guide and/or methodology

***Internal test reports shall be accepted for application made only up to December 31, 2018.**

VII. Important Remarks

1. Products not having a full test report for RoHS compliance shall be supported with test reports for at least 3 critical components.



2. Critical Components are those that their failure could lead to a breach of electrical safety. (i.e. electrical plug, motor, insulation/body, etc.)
3. Critical components may also be identified by the manufacturer based on their own risk assessment procedure. This justification shall be indicated in the "Declaration of Compliance" form.
4. In the event that a change in component (i.e. a new component was utilized for the manufacture of the already certified product) occur during the validity of the certificate, the certificate holder shall ensure continued compliance of the certified product and that changes has to be updated in the technical file during certificate renewal.

VIII. Implementation Timeline

1. Use of Cadmium (Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr), PBB, and PBDEs

Implementation date	Products	Group
January 1, 2020	- Medical devices - In vitro diagnostic medical devices - Monitoring and control instruments - Industrial monitoring and control instruments	A
January 1, 2022	Cables and spare parts of products which mentioned above in group A placed on the market.	B
January 1, 2018	EEE other than the above in group A and cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market, except products in category 11 in annex 1	C
January 1, 2020	Products in category 11 in annex 1 placed on the market.	D

2. Use of Biphenyl Phthalate (DBP), Hexyl Phthalate (DEHP), Benzyl Butyl Benzyl (BBP) and De Iso Butyl Phthalate (DIBO)

Implementation date	Products	Group
January 1, 2022	- Medical devices - In vitro diagnostic medical devices - Monitoring and control instruments - Industrial monitoring and control instruments	A
January 1, 2022	Cables and spare parts of products which mentioned above in group A placed on the market.	B
January 1, 2020	EEE other than the above in group A and cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market, except products in category 11 in annex 1	C
January 1, 2020	Products in category 11 in annex 1 placed on the market.	D