

TEST REPORT

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Applicant : YONGKANG JIELI WEIGHING APPARATUS CO., LTD
Address : 16 YILILAI ROAD, FANGYAN INDUSTRIAL BASE, YONGKANG,
ZHEJIANG, CHINA

Below information submitted by the applicant:

Product Name : Electronic Scale
Model : ACS-30
Model may cover : ACS-03, ACS-05, ACS-06, ACS-10, ACS-15, ACS-20, ACS-40, ACS-50,
ACS-60, TCS-40, TCS-50, TCS-60, TCS-100, TCS-150, TCS-200,
TCS-250, TCS-300, TCS-400, TCS-500, TCS-600, TCS-800, TCS-1000
Reference info. : /
Manufacturer info. : /
Supplier info. : /
Buyer info. : /
Country of Destination : /
Country of Origin : CHINA

Sample Received : 06.24, 2024
Test Period : 06.24, 2024 - 07.01, 2024
Test Requirement : Refer to next pages
Test Method : Refer to next pages
Test Result : Refer to next pages
Test Conclusion : Refer to next pages

Signed for and on behalf of
Jordan Wang, General Manager
BU Chemical Compliance
TUV THURINGEN (SHANGHAI) CO., LTD.
Location: Shanghai

TÜV THÜRINGEN CHINA

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http://tuv-thuringen.com.cn/news/12_138

VERSION: 2023.09.01

TUV THURINGEN (SHANGHAI) CO., LTD.

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RESULT SUMMARY

As requested by the client, test items as below:

Test Items	Verdict
1. RoHS 2.0 directive 2011/65/EU and its commission delegated directive No.2015/863 and 2017/2102 - Lead and its compounds - Cadmium and its compounds - Mercury and its compounds - Hexavalent Chromium and its compounds - PBBs and PBDEs - Phthalates (DBP, BBP, DEHP, DIBP)	PASS

TESTS CARRIED BY:

LAB ID: TTSLCM001; ADD.: ROOM 501, BUILDING 29-1, NO.259, ROAD SHIBEI GAOXIN, CHONGCHUAN, NANTONG, JIANGSU, CHINA

LIMITATION

LIMITATION SETTED BY Commission Delegated Directive (EU) No.2015/863 and No. 2017/2102 amending ANNEX II to directive 2011/65/EU of the European Parliament and the Council as regards the list of restricted substances.

Restricted substance	Units	Permissible Limitation
Lead, Pb	%	0.1, max
Mercury, Hg	%	0.1, max
Cadmium, Cd	%	0.01, max
Hexavalent Chromium, Cr ^{VI}	%	0.1, max
Polybrominated biphenyls, PBBs	%	0.1, sum, max
Polybrominated diphenyl ethers, PBDEs	%	0.1, sum, max
Bis(2-ethylhexyl) phthalate, DEHP	%	0.1, max
Butyl benzyl phthalate, BBP	%	0.1, max
Dibutyl phthalate, DBP	%	0.1, max
Diisobutyl phthalate, DIBP	%	0.1, max

* those provisions shall be applied from 22 July 2019; 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; The restriction of DEHP, BBP and DBP shall not apply to toys which are already subject to the restriction of DEHP, BBP and DBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

***** To be continued *****

SAMPLE DESCRIPTION

Sample Description : Electronic Scale

TEST RESULT(S)

1. Lead (Pb)/ Cadmium (Cd)/ Mercury(Hg)/ Hexavalent Chromium(Cr6+)/ PBBs/PBDEs/ Phthalates

Test Method: With reference to:

IEC 62321-1:2013 Determination of certain substances in electrotechnical products - Part 1: Introduction and overview

IEC 62321-2:2021 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 bromine by X-ray fluorescence spectrometry

IEC 62321-3-2:2020 Determination of certain substances in electrotechnical products - Part 3-2: Screening - Fluorine, bromine and chlorine in polymer and electronics by combustion-ion chromatography (C-IC)

IEC 62321-3-3:2021 Determination of certain substances in electrotechnical products - Part 3-3: Screening - Polybrominated biphenyls, polybrominated diphenyl ethers and phthalates in polymers by gas chromatography-mass spectrometry using a pyrolyser/thermal desorption accessory (Py/TD-GC-MS)

IEC 62321-3-4:2023 Determination of certain substances in electrotechnical products - Part 3-4: Screening - Phthalates in polymers of electrotechnical products by high performance liquid chromatography with ultraviolet detector (HPLC-UV), thin layer chromatography (TLC) and thermal desorption mass spectrometry (TD-MS)

IEC 62321-4:2013+A1:2017 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 substances 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 62321-9:2021 Determination of certain substances in electrotechnical products - Part 9: Hexabromocyclododecane in polymers by gas chromatography-mass spectrometry (GC-MS)

IEC 62321-10:2020 Determination of certain substances in electrotechnical products - Part 10: Polycyclic aromatic hydrocarbons (PAHs) in polymers and electronics by gas chromatography-mass spectrometry (GC-MS)

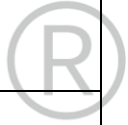
IEC 62321-11:2022 Determination of certain substances in electrotechnical products Part 11: Tris (2-chloroethyl) phosphate (TCEP) in plastics by gas chromatography-mass spectrometry (GC-MS) and liquid chromatography-mass spectrometry (LC-MS)

IEC 62321-12:2023 Determination of certain substances in electrotechnical products - Part 12: Simultaneous determination – Polybrominated biphenyls, polybrominated diphenyl ethers and phthalates in polymers by gas chromatography-mass spectrometry

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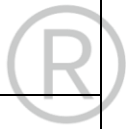
Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-01#	Silver metal plate	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL IN --- --- --- --- --- ---	47.6 --- --- Negative --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024
NT2406240 08-02#	Black plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-03#	Black plastic sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-04#	Green level	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-05#	White plastic shell	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-06#	Black plastic sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024



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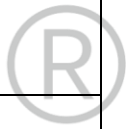
Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-07#	Red insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	434 --- --- --- --- --- n.d. n.d. 557 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-08#	White glue	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-09#	White plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-10#	Grey insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. 528 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-11#	Black plastic joint	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-12#	Transparent silicone ring	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024



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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-13#	White silicone	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-14#	Transparent plastic sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-15#	Blue electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-16#	Black plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL IN IN --- --- --- ---	--- --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-17#	Yellow electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-18#	Red plastic light	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	49.4 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024



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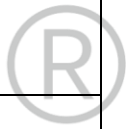
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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-19#	Silver metal pin	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	531 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024
NT2406240 08-20#	Plastic shell of capacitor	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	31.5 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-21#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	351 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-22#	tin solder	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	513 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024
NT2406240 08-23#	pcb	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL IN IN --- --- --- ---	--- --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-24#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL IN --- --- --- --- --- ---	--- --- --- Negative --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024

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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-25#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL IN --- --- --- --- --- ---	31.5 --- --- Negative --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024
NT2406240 08-26#	Black plastic button	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL IN IN --- --- --- ---	22.4 --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-27#	Black plastic sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL IN IN --- --- --- ---	--- --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-28#	Silver metal pin	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024
NT2406240 08-29#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	391 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-30#	tin solder	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	569 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024 Jun.26, 2024



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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-31#	Red insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	433 --- --- --- --- --- n.d. n.d. 572 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-32#	Copper wire	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.25, 2024
NT2406240 08-33#	Black insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	430 --- --- --- --- --- n.d. n.d. 549 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-34#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	39.2 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024
NT2406240 08-35#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL IN IN --- --- --- ---	--- --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024
NT2406240 08-36#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL IN IN --- --- --- ---	175 --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.25, 2024 Jun.26, 2024 Jun.27, 2024



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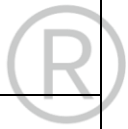
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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-37#	Gray metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	78.6 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-38#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-39#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-40#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	78.5 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-41#	White glue	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-42#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	71.8 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024

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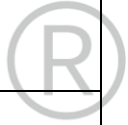
Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-43#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	63.6 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-44#	Black rubber cover	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-45#	Metal bolts	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL IN --- --- --- --- --- ---	--- --- --- Negative --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024 Jun.27, 2024
NT2406240 08-46#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-47#	Black rubber	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-48#	Red plastic button	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024



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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-49#	White plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-50#	Metal spring	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-51#	Silver metal button	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-52#	Black plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-53#	Metal bolts	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	59.7 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-54#	Black plastic	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024



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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-55#	Black plastic plug	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-56#	Silver metal plug	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024
NT2406240 08-57#	Silver metal sheet	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL IN --- --- --- --- --- ---	109 --- --- Negative --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024 Jun.27, 2024
NT2406240 08-58#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL IN IN --- --- --- ---	34.4 --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024 Jun.28, 2024
NT2406240 08-59#	Transparent plastic light bulb	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-60#	Metal shell of capacitor	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024

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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-61#	Blue ceramic capacitor	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	463 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-62#	tin solder	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	518 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024 Jun.27, 2024
NT2406240 08-63#	tin solder	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	521 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024 Jun.27, 2024
NT2406240 08-64#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-65#	Black electronic components	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL BL BL --- --- --- ---	435 --- --- --- --- --- n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024 Jun.28, 2024
NT2406240 08-66#	Copper wire	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	IN BL BL BL --- --- --- --- --- ---	148 --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024

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Part No.	Part Description	Restricted Substances	Result of EDXRF ⁽¹⁾	Result of Chemical Testing ⁽²⁾ (mg/kg)	Conclusion On RoHS	Data Submitted / Resubmitted Date
NT2406240 08-67#	Black insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. 563 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-68#	Black plastic socket	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL IN IN --- --- --- ---	--- --- --- --- n.d. n.d. n.d. n.d. n.d. n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024 Jun.28, 2024
NT2406240 08-69#	Black insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. 556 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-70#	Red insulation protection layer	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL BL BL --- --- --- ---	--- --- --- --- --- --- n.d. n.d. 553 n.d.	Comply Comply Comply Comply Comply Comply Comply Comply Comply Comply	Jun.26, 2024 Jun.27, 2024
NT2406240 08-71#	Silver metal interface	Pb Cd Hg Cr/Cr(VI) PBBs PBDEs DBP BBP DEHP DIBP	BL BL BL BL --- --- --- --- --- ---	--- --- --- --- --- --- --- --- --- ---	Comply Comply Comply Comply N.A. N.A. N.A. N.A. N.A. N.A.	Jun.26, 2024

***** To be continued *****

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Remark:

- (1) (a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr⁶⁺.
 (b) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr⁶⁺) and GC/MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321-3-1:2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(c) BL = Below Limit, OL = Over Limit, IN = Inconclusive, LOD = Limit of Detection, -- = Not Regulated, NA = Not Applicable.

(d) The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.



(2) (a) mg/kg = ppm = 0.001%, N.D.= Not Detected (<MDL), --- = Not Conducted.

(b) Unit and Method Detection Limit (MDL) in wet chemical test

Test Items	Pb	Cd	Hg
Units	mg/kg	mg/kg	mg/kg
MDL	2	2	2

The MDL for single compound of PBBs & PBDEs is 5 mg/kg and MDL of Cr⁶⁺ for polymer & composite sample is 2 mg/kg, MDL for Phthalates (DIBP, DBP, BBP, DEHP) is 50mg/kg.

(c) According to IEC 62321-7-1:2017, result on Cr⁶⁺ for metal sample is shown as Positive/Negative.

Positive = Presence of Cr⁶⁺ coating, Negative = Absence of Cr⁶⁺ coating.

(3) ① Copper alloy containing up to 4 % lead by weight (RoHS Exemption 6(c))

***** To be continued *****

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(3) RoHS Exemptions

Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):	
1(a)	For general lighting purposes < 30 W: 2,5 mg	Expires on 24 February 2023
1(b)	For general lighting purposes ≥ 30 W and < 50 W: 3,5 mg	Expires on 24 February 2023
1(c)	For general lighting purposes ≥ 50 W and < 150 W: 5 mg	Expires on 24 February 2023
1(d)	For general lighting purposes ≥ 150 W: 15 mg	Expires on 24 February 2023
1(e)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm: 5 mg	Expires on 24 February 2023
1(f) – I	For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg	Expires on 24 February 2027
1(f) – II	For special purposes: 5 mg	Expires on 24 February 2025
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3,5 mg	Expires on 24 August 2023
2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):	
2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 4 mg	Expires on 24 February 2023
2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 3 mg	Expires on 24 August 2023
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 3,5 mg	Expires on 24 August 2023
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 3,5 mg	Expires on 24 February 2023
2(a)(5)	Tri-band phosphor with long lifetime (≥ 25 000 h): 5 mg.	Expires on 24 February 2023
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):	
2(b)(1)	Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12): 10 mg	Expires on 13 April 2012
2(b)(2)	Non-linear halophosphate lamps (all diameters): 15 mg	Expires on 13 April 2016
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9): 15 mg	Expires on 24 February 2023; 10 mg may be used per lamp from 25 February 2023 until 24 February 2025
2(b)(4)- I	Lamps for other general lighting and special purposes (e.g. induction lamps): 15 mg	Expires on 24 February 2025
2(b)(4)- II	Lamps emitting mainly light in the ultraviolet spectrum: 15 mg	Expires on 24 February 2027
2(b)(4)- III	Emergency lamps: 15 mg	Expires on 24 February 2027
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes used in EEE placed on the market before 24 February 2022 not exceeding (per lamp):	
3(a)	Short length (≤ 500 mm): 3,5 mg	Expires on 24 February 2025
3(b)	Medium length (> 500 mm and ≤ 1 500 mm): 5 mg	Expires on 24 February 2025
3(c)	Long length (> 1 500 mm): 13 mg	Expires on 24 February 2025

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
4(a)	Mercury in other low pressure discharge lamps (per lamp): 15 mg	Expires on 24 February 2023
4(a)-I	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lamp-spectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp	Expires on 24 February 2027
4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 80$: $P \leq 105$ W: 16 mg may be used per burner	Expires on 24 February 2027
4(b)-I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P \leq 155$ W: 30 mg may be used per burner	Expires on 24 February 2023
4(b)-II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: 155 W $< P \leq 405$ W: 40 mg may be used per burner	Expires on 24 February 2023
4(b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P > 405$ W: 40 mg may be used per burner	Expires on 24 February 2023
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	
4(c)-I	$P \leq 155$ W: 20 mg	Expires on 24 February 2027
4(c)-II	155 W $< P \leq 405$ W: 25 mg	Expires on 24 February 2027
4(c)-III	$P > 405$ W: 25 mg	Expires on 24 February 2027
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	Expires on 13 April 2015
4(e)	Mercury in metal halide lamps (MH)	Expires on 24 February 2027
4(f) -I	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	Expires on 24 February 2025
4(f) -II	Mercury in high pressure mercury vapour lamps used in projectors where an output ≥ 2000 lumen ANSI is required	Expires on 24 February 2027
4(f) -III	Mercury in high pressure sodium vapour lamps used for horticulture lighting	Expires on 24 February 2027
4(f) -IV	Mercury in lamps emitting light in the ultraviolet spectrum	Expires on 24 February 2027
4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0,3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0,24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	Expires on 31 December 2018

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Exemptions	
RoHS Directive 2011/65/EU ANNEX III	
Exemption Items	Expires Date
5(a)	Lead in glass of cathode ray tubes
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight
6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight Expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight Expires on 21 July 2021 for categories 1-7 and 10.
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight Expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
6(b)-I	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling Expires on 21 July 2021 for categories 1-7 and 10.
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight Expires on 18 May 2021 for categories 1-7 and 10.
6(c)	Copper alloy containing up to 4 % lead by weight Expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex. Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	Expires on 1 January 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January 2012
8(b)	Cadmium and its compounds in electrical contacts	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
8(b)-I	Cadmium and its compounds in electrical contacts used in: — circuit breakers, — thermal sensing controls, — thermal motor protectors (excluding hermetic thermal motor protectors), — AC switches rated at: — 6 A and more at 250 V AC and more, or — 12 A and more at 125 V AC and more, — DC switches rated at 20 A and more at 18 V DC and more, and — switches for use at voltage supply frequency ≥ 200 Hz.	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.
9	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	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
9(a)-I	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input < 75 W at constant running conditions	Applies to categories 1-7 and 10 and expires on 5 March 2021.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
9(a)-II	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: — designed to operate fully or partly with electrical heater, having an average utilised power input ≥ 75 W at constant running conditions, — designed to fully operate with non-electrical heater.	Applies to categories 1-7 and 10 and expires on 21 July 2021.
9(a)-III	Up to 0,7 % hexavalent chromium by weight, used as an anticorrosion agent in the working fluid of the carbon steel sealed circuit of gas absorption heat pumps for space and water heating	Applies to category 1 and expires on 31 December 2026.
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Applies to categories 8, 9 and 11; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11, — 21 July 2021 for other subcategories of categories 8 and 9.
9(b)-(I)	Lead in bearing shells and bushes for refrigerant-containing hermetic scroll compressors with a stated electrical power input equal or below 9 kW for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Applies to category 1; expires on 21 July 2019.
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010
11(b)	Lead used in other than C-press compliant pin connector systems	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
12	Lead as a coating material for the thermal conduction module C-ring	May be used in spare parts for EEE placed on the market before 24 September 2010
13(a)	Lead in white glasses used for optical applications	Applies to all categories; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; — 21 July 2021 for all other categories and subcategories
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	Applies to categories 8, 9 and 11; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; — 21 July 2021 for other subcategories of categories 8 and 9
13(b)-(I)	Lead in ion coloured optical filter glass types	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10
13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	
13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Expired on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: — a semiconductor technology node of 90 nm or larger; — a single die of 300 mm ² or larger in any semiconductor technology node; — stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger.	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.
16	Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September 2013
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	
18(a)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) 2 MgSi 2 O 7 :Pb)	Expired on 1 January 2011
18(b)	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 (BaSi2O5:Pb)	Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment	Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021.
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Expires on 1 June 2011
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June 2011
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or 39 and expires on 21 July 2021.
21(c)	Lead in printing inks for the application of enamels on other than borosilicate glasses	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	May be used in spare parts for EEE placed on the market before 24 September 2010
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	
26	Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June 2011
27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September 2010
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC (2)	Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
30	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	
31	Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	
34	Lead in cermet-based trimmer potentiometer elements	Applies to all categories; expires on: — 21 July 2021 for categories 1-7 and 10, — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, — 21 July 2023 for category 8 in vitro diagnostic medical devices, — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expired on 1 July 2010
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm ² of display screen area)	Expires for all categories on 31 October 2019
40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Expires on 31 December 2013
41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council (1))	Applies to all categories and expires on: — 31 March 2022 for categories 1 to 7, 10 and 11; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments.
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: — with engine total displacement ≥ 15 litres; or — with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.	Applies to category 11, excluding applications covered by entry 6(c) of this Annex. Expires on 21 July 2024.
43	material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, 'prolonged contact with human skin' means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.	Applies to category 11 and expires on 21 July 2024.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX III		
Exemption Items		Expires Date
44	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (3), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users	Applies to category 11 and expires on 21 July 2024.
45	Lead diazide, lead styphnate, lead dipicramate, orange lead (lead tetroxide), lead dioxide in electric and electronic initiators of explosives for civil (professional) use and barium chromate in long time pyrotechnic delay charges of electric initiators of explosives for civil (professional) use	Applies to category 11 and expires on 20 April 2026

***** To be continued *****



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

Exemptions		
RoHS Directive 2011/65/EU ANNEX IV		
Product Range	Exemption Items	EXPERATION DATE
Equipment utilising or detecting ionising 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.	
Others	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.	
	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 creating superconducting magnetic circuits in MRI, SQUID, NMR (Nuclear Magnetic Resonance) or FTMS (Fourier Transform Mass Spectrometer) detectors.	Expires on 30 June 2021.
	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 μm .		
19. Lead in Liquid crystal on silicon (LCoS) displays.		
20. Cadmium in X-ray measurement filters.		
21. Cadmium in phosphor coatings in image intensifiers for X-ray images until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020.		

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Exemptions		
RoHS Directive 2011/65/EU ANNEX IV		
Product Range	Exemption Items	EXPERATION DATE
	22. 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.	Expires on 30 June 2021.
	23. Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation.	Expires on 30 June 2021.
	24. Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers.	Expires on 31 December 2019.
	25. 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 conditions.	Expires on 30 June 2021.
	26. Lead in the following applications that are used durably at a temperature below – 20 °C under normal operating and storage conditions: (a) solders on printed circuit boards; (b) termination coatings of electrical and electronic components and coatings of printed circuit boards; (c) solders for connecting wires and cables; (d) solders connecting transducers and sensors. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below – 150 °C.	These exemptions expire on 30 June 2021.
	27. Lead in — solders, — termination coatings of electrical and electronic components and printed circuit boards, — connections of electrical wires, shields and enclosed connectors, which are used in (a) 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, (b) 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 , ▼M80 (c) MRI non-integrated coils, for which the Declaration of Conformity of this model is issued for the first time before 23 September 2022, or (d) MRI devices including integrated coils, 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, for which the Declaration of Conformity is issued for the first time before 30 June 2024.	Expires on 30 June 2027.
	28. Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards.	Expires on 31 December 2017.
	29. 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.	Expires on 30 June 2021.
	30. Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	

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Exemptions		
RoHS Directive 2011/65/EU ANNEX IV		
Product Range	Exemption Items	EXPERATION DATE
	31a. Lead, cadmium, hexavalent chromium, and polybrominated diphenyl ethers (PBDE) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, or electron microscopes and their accessories, provided that the reuse takes place in auditable closed-loop business-to-business return systems and that each reuse of parts is notified to the customer.	Expires on: (a) 21 July 2021 for the use in medical devices other than in vitro diagnostic medical devices; (b) 21 July 2023 for the use in in vitro diagnostic medical devices; (c) 21 July 2024 for the use in electron microscopes and their accessories.
	32. Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment.	Expires on 31 December 2019.
	33. 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.	Expires on 30 June 2016 for class IIa and on 31 December 2020 for class IIb.
	34. Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi 2 O 5 :Pb) phosphors.	Expires on 22 July 2021.
	35. Mercury in cold cathode fluorescent lamps for back-lighting liquid crystal displays, not exceeding 5 mg per lamp, used in industrial monitoring and control instruments placed on the market before 22 July 2017	Expires on 21 July 2024.
	36. Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments.	Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.
	37. Lead in platinized platinum electrodes used for conductivity measurements where at least one of the following conditions applies: (a) wide-range measurements with a conductivity range covering more than 1 order of magnitude (e.g. range between 0,1 mS/m and 5 mS/m) in laboratory applications for unknown concentrations; (b) 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: (i) solutions with an acidity < pH 1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100 mS/m that must be performed with portable instruments.	Expires on 31 December 2025.

Exemptions		
RoHS Directive 2011/65/EU ANNEX IV		
Product Range	Exemption Items	EXPERATION DATE
	38. 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.	Expires on 31 December 2019. May be used after that date in spare parts for CT and X-ray systems placed on the market before 1 January 2020.
	39. Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) 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; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25 ns; (ii) a sample detection area larger than 149 mm ² ; (iii) a multiplication factor larger than $1,3 \times 10^3$. (c) a response time shorter than 5 ns for detecting electrons or ions; (d) a sample detection area larger than 314 mm ² for detecting electrons or ions; (e) a multiplication factor larger than $4,0 \times 10^7$.	The exemption expires on the following dates: (a) 21 July 2021 for medical devices and monitoring and control instruments; (b) 21 July 2023 for in-vitro diagnostic medical devices; (c) 21 July 2024 for industrial monitoring and control instruments.
	40. Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial monitoring and control instruments.	Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.
	41. Lead as a thermal stabiliser in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in-vitro diagnostic medical devices for the analysis of blood and other body fluids and body gases.	Expires on 31 March 2022.
	42. Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50 MHz) modes of operation.	Expires on 30 June 2026.
	43. Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10 ppm is required.	Expires on 15 July 2023.
	44. Cadmium in radiation tolerant video camera tubes designed for cameras with a centre resolution greater than 450 TV lines which are used in environments with ionising radiation exposure exceeding 100 Gy/hour and a total dose in excess of 100kGy.	Applies to category 9. Expires on 31 March 2027.
	45. Bis(2-ethylhexyl) phthalate (DEHP) in ion-selective electrodes applied in point of care analysis of ionic substances present in human body fluids and/or in dialysate fluids	Expires on 21 July 2028.
	46. Bis(2-ethylhexyl) phthalate (DEHP) in plastic components in MRI detector coils.	Expires on 1 January 2024.

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Exemptions		
RoHS Directive 2011/65/EU ANNEX IV		
Product Range	Exemption Items	EXPERATION DATE
	47. Bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP) and diisobutyl phthalate (DIBP) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, and their accessories, provided that the reuse takes place in auditable closed-loop business-to-business return systems and that each reuse of parts is notified to the customer.	Expires on 21 July 2028.
	48. Lead in bismuth strontium calcium copper oxide (BSCCO) superconductor cables and wires and lead in electrical connections to these wires	Expires on 30 June 2027.

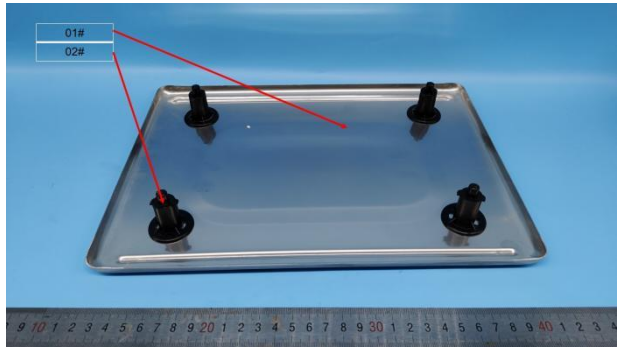
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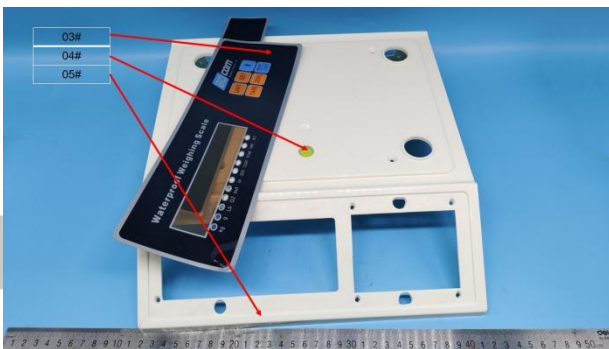
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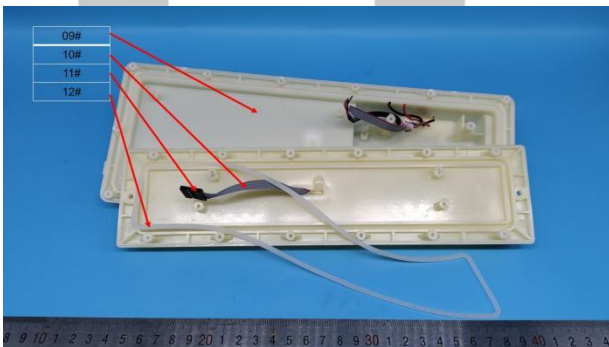
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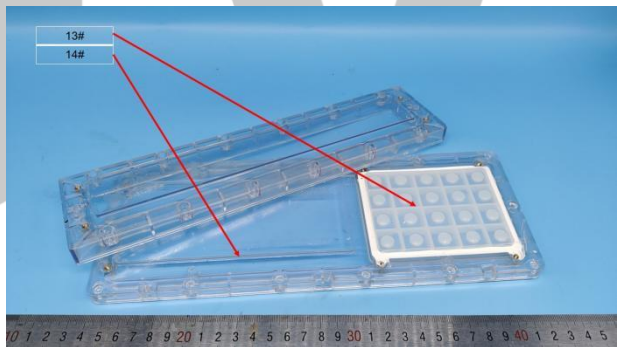
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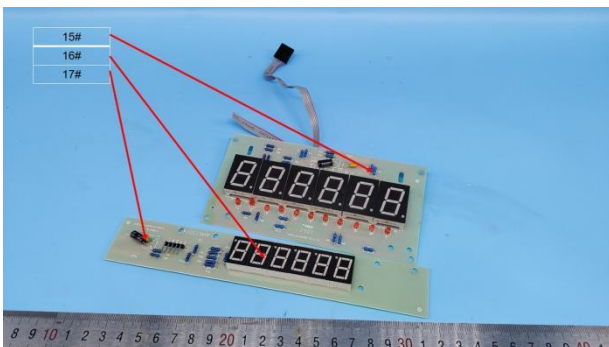
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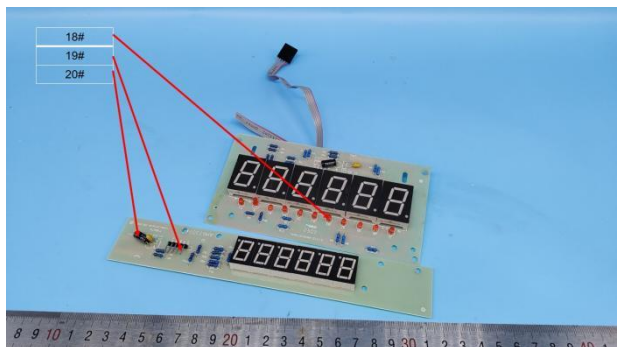
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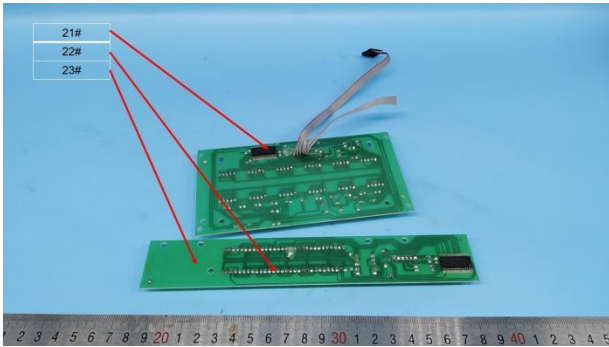


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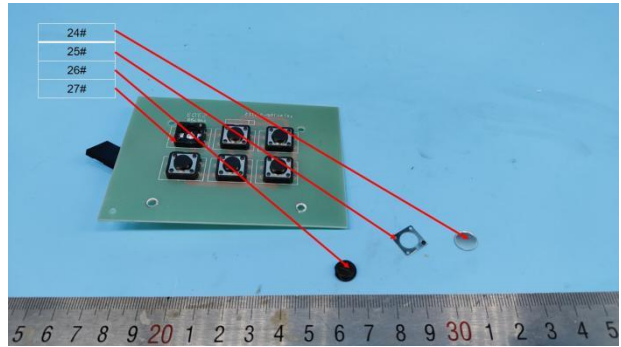


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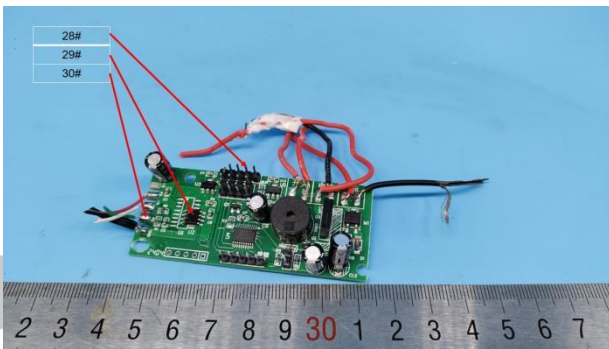
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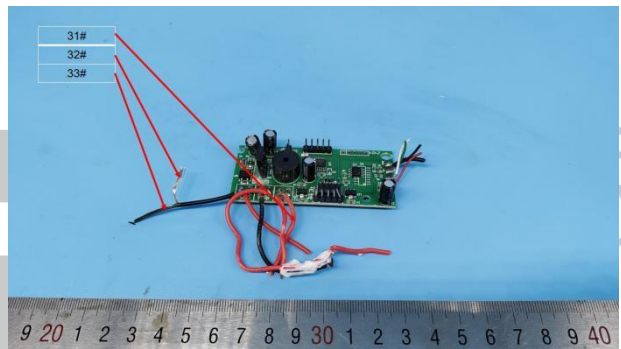
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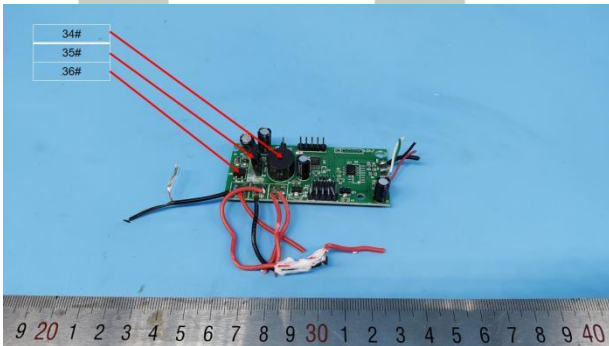
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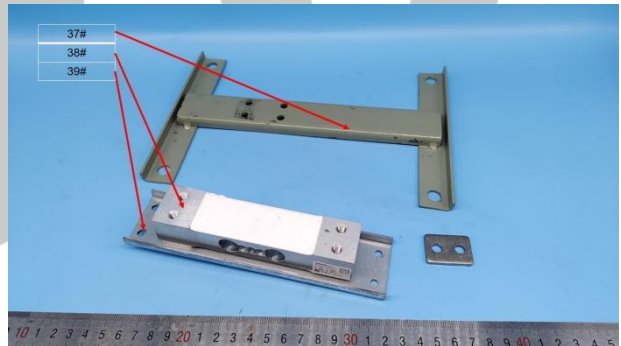
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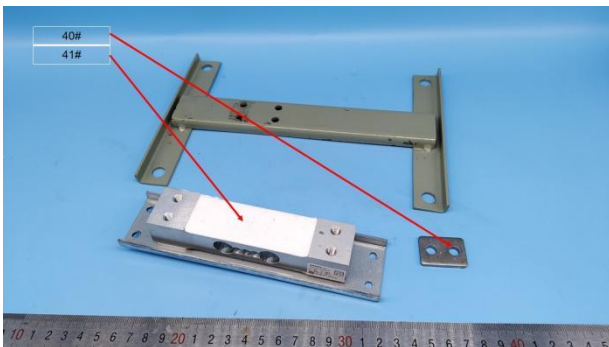
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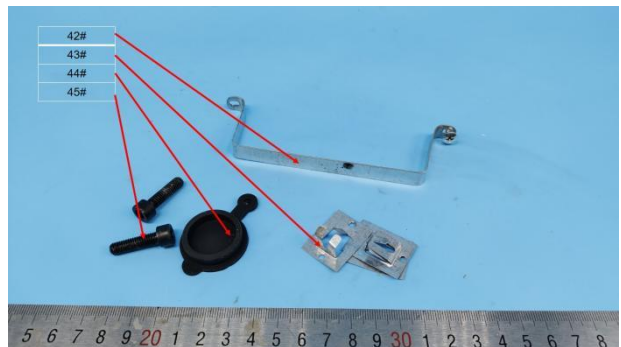
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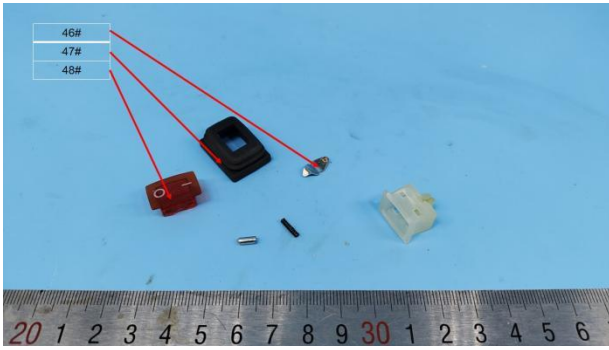


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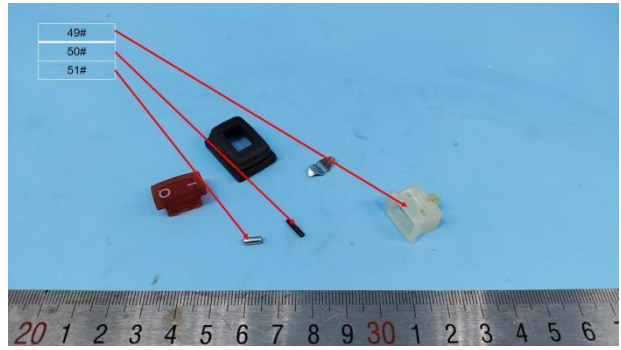


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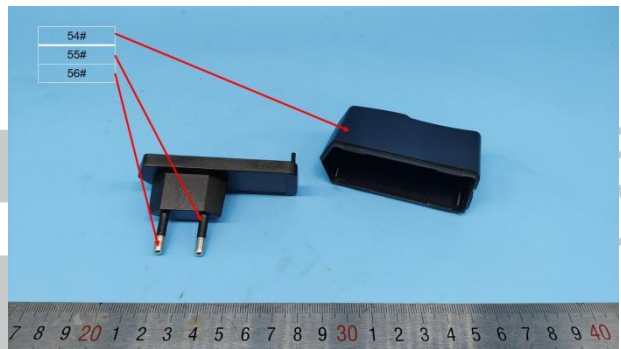
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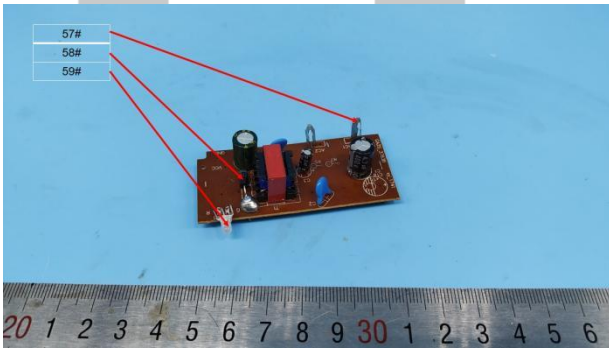
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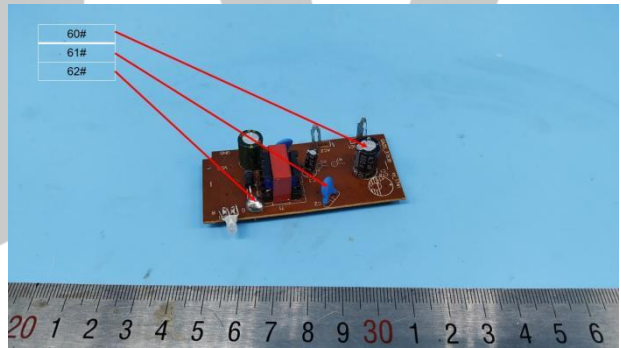
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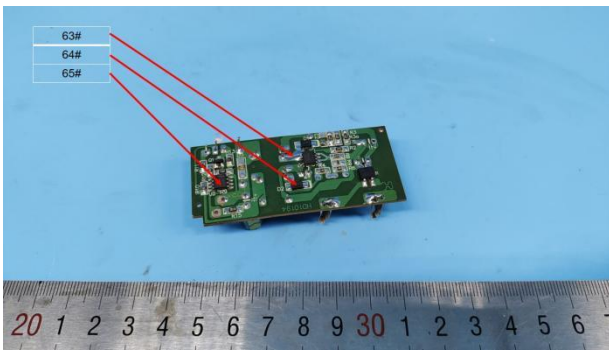
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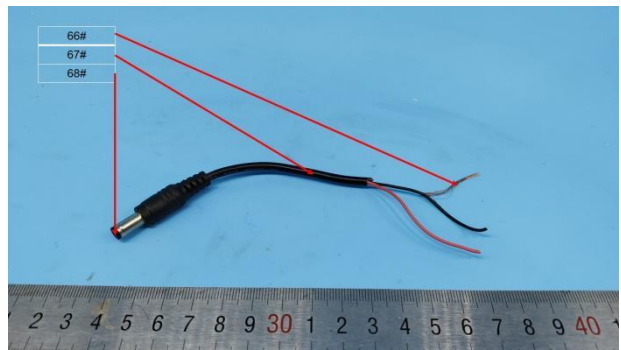
57#~59#



60#~62#



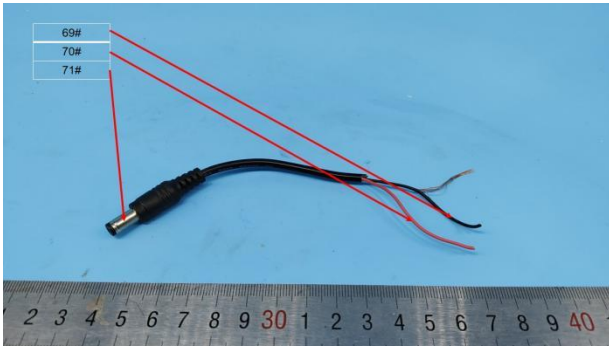
63#~65#



66#~68#

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***** END OF REPORT *****

