

Declaration of ROHS Compliance

We, Taoglas Ltd., hereby declare that all our products manufactured from the 1st of January 2006 are in full compliance with EU Directive 2011/65/EU, with respect to the following substances:

- 1) Lead (Pb),
- 2) Mercury (Hg),
- 3) Cadmium (Cd),
- 4) Hexavalent chromium (Cr (VI)),
- 5) Polybrominated biphenyls (PBB) and
- 6) Polybrominated diphenyl ethers (PBDE)

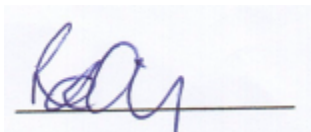
Lead free soldering was implemented in all of our subcontractors plants since the 1st of January 2006. Lead is present in ceramic antennas but is exempt under the RoHS directive (2011/65/EU) (see exemption No.7). Ceramics are exempt as the lead is chemically bound and totally inert. The only way for it to escape or leach into the surroundings is for it to be heated to temperatures exceeding 600C.

Compliance is evidenced by written declaration from our suppliers, assuring that any potential trace contamination levels of the substances listed above are below the maximum level set by EU 2011/65/EU, or are exempt due to their application.

The products supplied by Taoglas Limited meet the requirements of EU 2011/65/EU; however, some assemblies are customized to client specifications. Addition of specialized, customer-specified materials or processes which do not meet the requirements of EU 2011/65/EU may negate RoHS compliance of the assembly. To guarantee compliance of the assembly, the need for compliant product must be communicated to Taoglas in written form.

This declaration is issued based on our current level of knowledge, and covers all products. Part numbers will remain the same. Since conditions of use are outside our control, Taoglas Limited makes no warranties, express or implied, and assumes no liability in connection with the use of this information

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Ronan', is written over a horizontal line.

Ronan Quinlan
Joint Managing Director

RoHS Exemption List



Applications of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) which are exempted from the requirements of Article 4(1) of Directive 2011/65/EU

No	Exemption	Comment
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner)	
1(a)	For general lighting purposes < 30 W: 2.5 mg	from 31/12/2012
1(b)	For general lighting purposes ≥ 30 W and < 50 W: 3.5 mg	from 31/12/2011
1(c)	For general lighting purposes ≥ 50 W and < 150 W: 5 mg	
1(d)	For general lighting purposes ≥ 150 W: 15 mg	
1(e)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm : 7 mg	from 31/12/2011
1(f)	For special purposes: 5 mg	
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	from 31/12/2011
2(a)2	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 3 mg	from 31/12/2011
2(a)3	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 3.5 mg	from 31/12/2011
2(a)4	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 3.5 mg	from 31/12/2012
2(a)5	Tri-band phosphor with long lifetime (≥ 25 000 h): 5 mg	from 31/12/2011
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	expired 13/4/2012
2(b)2	Non-linear halophosphate lamps (all diameters): 15 mg	expires 13/4/2016
2(b)3	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9): 15 mg	from 31/12/2011
2(b)4	Lamps for other general lighting and special purposes (e.g. induction lamps) : 15 mg	from 31/12/2011
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):	
3(a)	Short length (≤ 500 mm): 3.5 mg	from 31/12/2011
3(b)	Medium length (> 500 mm and ≤ 1 500 mm) : 5 mg	from 31/12/2011
3(c)	Long length (> 1 500 mm) : 13 mg	from 31/12/2011
4(a)	Mercury in other low pressure discharge lamps (per lamp) : 15 mg	from 31/12/2011
4(b)-I	P ≤ 155 W : 30 mg	from 31/12/2011
4(b)-II	155 W < P ≤ 405 W : 40 mg	from 31/12/2011
4(b)-III	P > 405 W : 40 mg	from 31/12/2011
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	
4(c)-I	P ≤ 155 W : 25 mg	from 31/12/2011
4(c)-II	155 W < P ≤ 405 W : 30 mg	from 31/12/2011
4(c)-III	P > 405 W : 40 mg	from 31/12/2011
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	expires 13/04/2015
4(e)	Mercury in metal halide lamps (MH)	
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	
5(a)	Lead in glass of cathode ray tubes	
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	

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6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	
6(c)	Copper alloy containing up to 4 % lead by weight	
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	
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	
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	expired on 01/01/2013 and after that date may be used in spare parts for EEE placed on the market before 01/01/2013
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	expired on 01/01/2012 and after that date may be used in spare parts for EEE placed on the market before 01/01/2012
8(b)	Cadmium and its compounds in electrical contacts	
9	Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24/09/2010
11(b)	Lead used in other than C-press compliant pin connector systems	expired on 01/01/2013 and after that date may be used in spare parts for EEE placed on the market before 01/01/2013
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 24/09/2010

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13(a)	Lead in white glasses used for optical applications	
13(b)	Cadmium and lead in filter glasses and glasses 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 01/01/2011 and after that date may be used in spare parts for EEE placed on the market before 01/01/2011
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages	
16	Lead in linear incandescent lamps with silicate coated tubes	Expired 01/09/2013
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 specialty lamps for diazo-printing reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) ₂ MgSi ₂ O ₇ :Pb)	Expired 01/01/2011
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 (BaSi ₂ O ₇ :Pb)	
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)	Expired 01/06/2011
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCD)	Expired 01/06/2011
21	Lead and cadmium in printing inks for the application of enamels on glasses such as borosilicate and soda lime glasses	
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less	May be used in spare parts for EEE placed on the market before 24/09/2010
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	
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 (BLB) lamps	Expired 01/06/2011
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 24/09/2010
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	
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	
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	