

# EU RoHS - More Exemptions Published

Further material exemptions to the RoHS Directive 2002/95/EC have now been officially confirmed. They include use of decaDBE in polymers (flame retardant), cadmium compounds (e.g. cadmium oxide-silver used in certain contacts) and further uses of lead. The consolidated list follows, based on the RoHS Directive and new Decisions 2005/717/EC (OJ L 271, 15.10.2005, p. 48) and 2005/747/EC (OJ L 280, 25.10.2005, p. 18).

## Consolidated List of Exemptions to the RoHS Directive 2002/95/EC (First & Second Packages)

1	Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.
2	Mercury in straight fluorescent lamps for general purposes not exceeding: <ul style="list-style-type: none"> <li>• Halophosphate 10 mg;</li> <li>• Triphosphate with normal lifetime 5 mg;</li> <li>• Triphosphate with long lifetime 8 mg.</li> </ul>
3	Mercury in straight fluorescent lamps for special purposes.
4	Mercury in other lamps not specifically mentioned in this Annex.
5	Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
6	Lead as an alloying element in: <ul style="list-style-type: none"> <li>• Steel containing up to 0.35 % lead by weight;</li> <li>• Aluminum containing up to 0.4 % lead by weight;</li> <li>• Copper alloy containing up to 4 % lead by weight.</li> </ul>
7	<ul style="list-style-type: none"> <li>• Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).</li> <li>• Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunication.</li> <li>• Lead in electronic ceramic parts (e.g. piezoelectronic devices).</li> </ul>
8	Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.
9	Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.
9a	DecaBDE in polymeric applications.
9b	Lead in lead-bronze bearing shells and bushes.
11	Lead used in compliant pin connector systems.
12	Lead as a coating material for the thermal conduction module c-ring.
13	Lead and cadmium in optical and filter glass.
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.
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

**Third package of proposed exemptions (under review by the Commission's expert)**

1	Lead in tin whisker resistant coatings for fine pitch (<0.65 mm) applications (e.g. connectors).
2	Lead bound in glass, crystal glass, lead crystal or full lead crystal in general and chromium (VI) and cadmium as coloring agents (up to 2 % content) in glass, crystal glass, lead crystal or full lead crystal for decorative and/or functional use.
3	Solders containing lead and/or cadmium for specific applications.
4	Hexavalent chromium anti-corrosion coatings.
5	Lead oxide glass in plasma display panels.
6	Lead in connectors, flexible printed circuits, flexible flat cables.
7	Lead glass used for magnetic heads (e.g. VCRs).
8	Cadmium as a doping material in avalanche photodiodes (APDs) for optical fibre communications.
9	Lead in optical isolators.
10	Lead glass seals in the sheath heater of microwaves.
11	Cadmium pigments (except for those banned by the Cadmium Directive 91/338/EEC).
12	Lead halide (iodide) as a radiant agent in high intensity discharge (HID) lamps for professional UV applications (e.g. lamps used for curing, reprography and label printing).
13	Lead activators in the phosphors used for specialized straight and compact fluorescent lamps (e.g. lamps for sun tanning, diazo-printing, reprography, lithography, insect traps).
14	Lead as an amalgam in discharge lamps (e.g. small compact energy-saving fluorescent lamps).
15	Lead in glass solder used for mercury-free flat panel lamps.
16	Lead in the glass envelope of Black Light Blue (BLB) UV lamps (BLB lamps are used for money checking, leak detection, disco lighting etc).
17	Lead in low melting point alloys (e.g. second soldering operations on a printed circuit board (PCB) and safety and other temperature dependant switching devices.
18	Lead in galvanized steel (up to 0.35% lead) and aluminum (up to 0.4 % unintended lead).
19	Cadmium sulphide photocells.

**Fourth package of proposed exemptions (Has undergone a public consultation)**

1	Linear incandescent lamp.
2	Mercury in switches.
3	Special ICs having tin-lead solder plating on leads used in professional equipment.
4	Specific modular units including tin-lead solder being used in special professional equipment.
5	Solders containing lead and /or cadmium for specific applications where local temperature is

	higher than 150 deg C and which need to work properly more than 500 hours.
6	Lead in solder for printed circuit boards for emergency lighting products.
7	Hexavalent chromium (Cr-VI) in chromate conversion coatings as surface treatment.
8	Lead in gas sensors.
9	Concerning of PbO (Lead in Seal Frit) used for making BLU (Back Light Unit) lamps in LCD TVs.
10	Cadmium in opto-electronic components.
11	Non-consumer mechanical power transmission systems including speed reducers and mechanical couplings which rely on electrical/electronic components for safe control and operation.
12	Electrical and electronic components contained in heating ventilating and air conditioning building systems, commercial refrigeration systems and transport refrigeration systems.
13	Cadmium-bearing copper alloys.
14	Electrical/electronic components contained mobile and stationary air compressors and vacuum systems, compressed air contaminant removal systems and pneumatic contractor's air tools.
15	Electrical/electronic equipment that are: used in transport -aviation, aerospace, road, maritime, rail; installed in to the fabric of buildings - elevators, escalators, moving walks, dumb waiters, and heating, cooling and ventilation systems, and fire and security systems; used in the energy generation and transmission; used in mining and mineral processing; used for non-consumer mechanical power transmission systems; industrial process pumps and compressors; used in industrial refrigeration; and used in military applications.
16	Lead alloys as electrical/mechanical solder for transducers used in high-powered professional and commercial loudspeakers.
17	Cadmium oxide.
18	Solder tin of the thermo fuse with a defined low melting point.
19	Lead in lead oxide glass used in plasma display panel (PDP).
20	Lead in solder on small PCB and tinned legs of primary components.
21	Use of the not lead free component NEC V25 in the Memor 2000.
22	Lead used in shielding of radiation for Non Medical X-ray equipment.
23	Lead based solders sealed or captured within heat-shrinkable components and devices.