



# HONGCAI TESTING

Consumer products

HCT-202207-02

## EU proposes to update the partial exemption of lead in ELV directive

On June 21, 2022, the EU submitted to TBT circular G/TBT/N/EU/901, proposing to update the exemption of lead in aluminum alloys, copper alloys for machining and some batteries in the ELV directive, and will make minor adjustments to some remarks in the annex II exemption list. If the draft is approved, it will enter into force 20 days after its publication in the official gazette of the European Union and will be implemented six months after its publication. The main updates are summarized as follows:

Current exemption	Proposed update
2(c)(i). Aluminium alloys for machining purposes with a lead content up to 0,4 % by weight. This exemption shall be reviewed in 2021.	2(c)(i). Aluminium alloys for machining purposes with a lead content up to 0,4 % by weight. Vehicles type-approved before 1 January 2028 and spare parts for these vehicles.
3. Copper alloys containing up to 4 % lead by weight. This exemption shall be reviewed in 2021.	3. Copper alloys containing up to 4 % lead by weight. This exemption shall be reviewed in 2025.
5(b). Lead in batteries for battery applications not included in entry 5(a). This exemption shall be reviewed in 2021.	5(b)(i). Lead in batteries used in 12 V applications. Vehicles and spare parts for these vehicles, This exemption shall be reviewed in 2025.
	5(b)(ii). Lead in batteries for battery applications not included in entry 5(a) and entry 5(b)(i). Vehicles type approved before 1 January 2024 and spare parts for these vehicles

If the draft is approved, the list of exemptions in Annex II of the ELV directive will be replaced by the following table.

Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2), point (b)(iv)
Lead as an alloying element		
1(a). Steel for machining purposes and batch hot dip galvanised steel components containing up to 0,35 % lead by weight		



# HONGCAI TESTING

1(b). Continuously galvanised steel sheet containing up to 0,35 % lead by weight	Vehicles type approved before 1 January 2016 and spare parts for these vehicles	
2(a). Aluminium for machining purposes with a lead content up to 2 % by weight	As spare parts for vehicles put on the market before 1 July 2005	
2(b). Aluminium with a lead content up to 1,5 % by weight	As spare parts for vehicles put on the market before 1 July 2008	
2(c)(i). Aluminium alloys for machining purposes with a lead content up to 0,4 % by weight	Vehicles type-approved before 1 January 2028 and spare parts for these vehicles	
2(c)(ii). Aluminium alloys not included in entry 2(c)(i) with a lead content up to 0,4 % by weight (2)	(1)	
3. Copper alloys containing up to 4 % lead by weight	(3)	
4(a). Bearing shells and bushes	As spare parts for vehicles put on the market before 1 July 2008	
4(b). Bearing shells and bushes in engines, transmissions and air conditioning compressors	As spare parts for vehicles put on the market before 1 July 2011	
Lead and lead compounds in components		
5(a). Lead in batteries in high-voltage systems (4) that are used only for propulsion in M1 and N1 vehicles	Vehicles type approved before 1 January 2019 and spare parts for these vehicles	X
5(b)(i). Lead in batteries used in 12 V applications	Vehicles and spare parts for these vehicles (3)	X
5(b)(ii). Lead in batteries for battery applications not included in entry 5(a) and entry 5(b)(i)	Vehicles type approved before 1 January 2024 and spare parts for these vehicles	X
6. Vibration dampers	Vehicles type approved before 1 January 2016 and spare parts for these vehicles	X
7(a). Vulcanising agents and stabilisers for elastomers in brake hoses, fuel hoses, air ventilation hoses, elastomer/metal parts in the chassis applications, and engine mountings	As spare parts for vehicles put on the market before 1 July 2005	
7(b). Vulcanising agents and stabilisers for elastomers in brake hoses, fuel hoses, air ventilation hoses,	As spare parts for vehicles put on the market before 1	



# HONGCAI TESTING

elastomer/metal parts in the chassis applications, and engine mountings containing up to 0,5 % lead by weight	July 2006	
7(c). Bonding agents for elastomers in powertrain applications containing up to 0,5 % lead by weight	As spare parts for vehicles put on the market before 1 July 2009	
8(a). Lead in solders to attach electrical and electronic components to electronic circuit boards and lead in finishes on terminations of components other than electrolyte aluminium capacitors, on component pins and on electronic circuit boards	Vehicles type approved before 1 January 2016 and spare parts for these vehicles	X(5)
8(b). Lead in solders in electrical applications other than soldering on electronic circuit boards or on glass	Vehicles type approved before 1 January 2011 and spare parts for these vehicles	X(5)
8(c). Lead in finishes on terminals of electrolyte aluminium capacitors	Vehicles type approved before 1 January 2013 and spare parts for these vehicles	X(5)
8(d). Lead used in soldering on glass in mass airflow sensors	Vehicles type approved before 1 January 2015 and spare parts of these vehicles	X(5)
8(e). Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	(1)	X
8(f)(i). Lead in compliant pin connector systems	Vehicles type approved before 1 January 2017 and spare parts for these vehicles	X(5)
8(f)(ii). Lead in compliant pin connector systems other than the mating area of vehicle harness connectors	Vehicles type approved before 1 January 2024 and spare parts for these vehicles	X
8(g)(i). Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Vehicles type approved before 1 October 2022 and spare parts for these vehicles	X
8(g)(ii). Lead in solders to complete a viable electrical connection between the semiconductor die and the carrier within integrated circuit flip chip packages where that electrical connection consists of any of the following: (1) a semiconductor technology node of 90 nm or	(1)	X



# HONGCAI TESTING

<p>larger;                  (2) a single die of 300 mm<sup>2</sup> or larger in any semiconductor technology node;                  (3) stacked die packages with dies of 300 mm<sup>2</sup> or larger, or silicon interposers of 300mm<sup>2</sup> or larger.</p>		
<p>8(h). Lead in solder to attach heat spreaders to the heat sink in power semiconductor assemblies with a chip size of at least 1 cm<sup>2</sup> of projection area and a nominal current density of at least 1 A/mm<sup>2</sup> of silicon chip area</p>	<p>Vehicles type approved before 1 January 2016 and spare parts for these vehicles</p>	<p>X(5)</p>
<p>8(i). Lead in solders in electrical glazing applications on glass except for soldering in laminated glazing</p>	<p>Vehicles type approved before 1 January 2016 and spare parts for these vehicles</p>	<p>X(5)</p>
<p>8(j). Lead in solders for soldering of laminated glazing</p>	<p>Vehicles type approved before 1 January 2020 and spare parts for these vehicles</p>	<p>X(5)</p>
<p>8(k). Soldering of heating applications with 0,5A or more of heat current per related solder joint to single panes of laminated glazings not exceeding wall thickness of 2,1 mm. This exemption does not cover soldering to contacts embedded in the intermediate polymer.</p>	<p>Vehicles type approved before 1 January 2024 and spare parts for these vehicles</p>	<p>X(5)</p>
<p>9. Valve seats</p>	<p>As spare parts for engine types developed before 1 July 2003</p>	
<p>10(a). Electrical and electronic components, which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound.                  This exemption does not cover the use of lead in:                  (i) glass in bulbs and glaze of spark plugs,                  (ii) dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d).</p>	<p>As spare parts for engine types developed before 1 July 2003</p>	<p>X(6) (for components other than piezo in engines)</p>
<p>10(b). Lead in PZT based dielectric ceramic materials of capacitors being part of integrated circuits or discrete semiconductors</p>		
<p>10(c). Lead in dielectric ceramic materials of capacitors with a rated voltage of less than 125 V AC or 250 V DC</p>	<p>Vehicles type approved before 1 January 2016 and spare parts for these vehicles</p>	
<p>10(d). Lead in the dielectric ceramic materials of capacitors compensating the temperature-related deviations of sensors in ultrasonic sonar systems</p>	<p>Vehicles type approved before 1 January 2017 and spare parts for these</p>	



# HONGCAI TESTING

	vehicles	
11. Pyrotechnic initiators	Vehicles type approved before 1 July 2006 and spare parts for these vehicles	
12. Lead-containing thermoelectric materials in automotive electrical applications to reduce CO2 emissions by recuperation of exhaust heat	Vehicles type approved before 1 January 2019 and spare parts for these vehicles	X
Hexavalent chromium		
13(a). Corrosion preventive coatings	As spare parts for vehicles put on the market before 1 July 2007	
13(b). Corrosion preventive coatings related to bolt and nut assemblies for chassis applications	As spare parts for vehicles put on the market before 1 July 2008	
14. Hexavalent chromium as an anti-corrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution: (a) designed to operate fully or partly with electrical heater, having an average utilised electrical power input < 75W at constant running conditions; (b) designed to operate fully or partly with electrical heater, having an average utilised electrical power input ≥ 75W at constant running conditions; (c) designed to fully operate with non-electrical heater.	For (i): Vehicles type approved before 1 January 2020 and spare parts for these vehicles For (ii): Vehicles type approved before 1 January 2026 and spare parts for these vehicles	X
Mercury		
15(a). Discharge lamps for headlight application	Vehicles type approved before 1 July 2012 and spare parts for these vehicles	X
15(b). Fluorescent tubes used in instrument panel displays	Vehicles type approved before 1 July 2012 and spare parts for these vehicles	X
Cadmium		
16. Batteries for electrical vehicles	As spare parts for vehicles put on the market before 31 December 2008	



# HONGCAI TESTING

Notes to the table:

1. This exemption shall be reviewed in 2024.
2. Applies to aluminium alloys where lead is not intentionally introduced, but is present due to the use of recycled aluminium.
3. This exemption shall be reviewed in 2025.
4. Systems that have a voltage of > 75 V DC as provided for in Article 1 of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (OJ L 96, 29.3.2014, p. 357).
5. Dismantling if, in correlation with entry 10(a), an average threshold of 60 grams per vehicle is exceeded. For the purposes of this note electronic devices not installed by the manufacturer on the production line shall not be taken into account.
6. Dismantling if, in correlation with entries 8(a) to 8(j), an average threshold of 60 grams per vehicle is exceeded. For the purposes of this note electronic devices not installed by the manufacturer on the production line shall not be taken into account.

Original link:

<https://eping.wto.org/en/Search/Index?countryIds=U918&viewData=G%2FTBT%2FN%2FEU%2F901>

## HCT SOLUTION :

The proposed update is mainly to extend the exemption period for lead in aluminum alloys, copper alloys and certain batteries. Relevant enterprises should focus on the latest development of the three types of exempted uses of lead mentioned above to ensure legal compliance of products. HCT has a wide range of testing fields and convenient service channels, which can help companies evaluate restricted substances in products and make your products meet the standards of corresponding national and international organizations.

### Contact us:

Shenzhen Hongcai testing technology co., LTD. (HCT)

Web: <http://www.hct-test.com/>

Hotline: 400-0066-989 T: (86) 755 8416666

Email: [service@hct-test.com](mailto:service@hct-test.com)

Add: Building B, Tianji Industrial Park, Floor 1&2&3 No.30-9 Laiyin Road,

Xinsheng Community, Longgang Street, Longgang District, Shenzhen,

Guangdong, China

**Statement:** This publication is only educational and does not replace any legal requirements or applicable rules. Information included in the publication will not be revised. HCT does not guarantee that the content contained in the publication without any errors or will meet any particular performance or quality standards. If there is no consent of HCT in advance, please do not quote or refer any information contained in this publication.