

# DIRECTIVES

## COMMISSION DIRECTIVE (EU) 2017/2096

of 15 November 2017

### amending Annex II to Directive 2000/53/EC of the European Parliament and of the Council on end-of life vehicles

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles <sup>(1)</sup>, and in particular Article 4(2)(b),

Whereas:

- (1) Article 4(2)(a) of Directive 2000/53/EC prohibits the use of lead, mercury, cadmium and hexavalent chromium in materials and components of vehicles put on the market after 1 July 2003.
- (2) Annex II to Directive 2000/53/EC lists vehicle materials and components exempt from the prohibition set out in Article 4(2)(a) thereof. That Annex is to be amended on a regular basis according to technical and scientific progress and exemptions 2(c), 3 and 5 regarding the use of lead are to be reviewed.
- (3) An assessment of technical and scientific progress has demonstrated that the use of lead remains unavoidable for the materials and components covered by exemption 2(c). However, current information suggests that lead substitutes may become available for those material and components in the near future. For some materials and components, lead substitutes are expected to become available sooner than for others, and therefore it is appropriate to split exemption 2(c) into two sub-entries with different review dates according to the progress in the development of such substitutes.
- (4) The assessment of technical and scientific progress has also demonstrated that the use of lead remains unavoidable for the materials and components covered by exemption 3. Possible substitutes exist but have to be developed further. A new review date for that exemption should therefore be set, taking into account the progress in the development of substitutes.
- (5) Finally, the assessment of technical and scientific progress has demonstrated that for some materials and components covered by exemption 5, lead alternatives already exist but are not usable in all vehicles covered by the exemption. For the other materials and components covered by exemption 5, the use of lead is still unavoidable. Consequently, that exemption should be split into two sub-entries. For the materials and components for which alternatives exist, an expiry date for the exemption should be set which allows necessary time to ensure that the use of lead is avoidable in all vehicles concerned. For the exemption covering materials and components for which the use of lead is still unavoidable, a new review date should be set, taking into account the progress in the development of substitutes.
- (6) The measures provided for in this Directive are in accordance with the opinion of the committee established by Article 39 of Directive 2008/98/EC of the European Parliament and of the Council <sup>(2)</sup>,

HAS ADOPTED THIS DIRECTIVE:

#### Article 1

Annex II to Directive 2000/53/EC is replaced by the text set out in the Annex to this Directive.

<sup>(1)</sup> OJ L 269, 21.10.2000, p. 34.

<sup>(2)</sup> OJ L 312, 22.11.2008, p. 3.

*Article 2*

1. Member States shall adopt and publish by 6 June 2018 the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 3*

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

*Article 4*

This Directive is addressed to the Member States.

Done at Brussels, 15 November 2017.

*For the Commission*  
*The President*  
Jean-Claude JUNCKER

## ANNEX

## 'ANNEX II

**Materials and components exempt from Article 4(2)(a)**

A maximum concentration value up to 0,1 % by weight in homogeneous material for lead, hexavalent chromium and mercury and up to 0,01 % by weight in homogeneous material for cadmium shall be tolerated.

Spare parts put on the market after 1 July 2003 which are used for vehicles put on the market before 1 July 2003, except for wheel balance weights, carbon brushes for electric motors and brake linings, shall be exempted from the provisions of Article 4(2)(a) of Directive 2000/53/EC.

Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)
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**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		
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	( <sup>1</sup> )	
2(c)(ii). Aluminium alloys not included in entry 2(c)(i) with a lead content up to 0,4 % by weight ( <sup>1a</sup> )	( <sup>2</sup> )	
3. Copper alloys containing up to 4 % lead by weight	( <sup>1</sup> )	
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 ( <sup>2a</sup> ) 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
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Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)
5(b). Lead in batteries for battery applications not included in entry 5(a)	(1)	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, elastomer/metal parts in the chassis applications, and engine mountings containing up to 0,5 % lead by weight	As spare parts for vehicles put on the market before 1 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 (4)
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 (4)
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 (4)
8(d). Lead used in soldering on glass in mass air-flow sensors	Vehicles type-approved before 1 January 2015 and spare parts of such vehicles	X (4)
8(e). Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	(3)	X (4)

Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)
8(f)(a). Lead in compliant pin connector systems	Vehicles type-approved before 1 January 2017 and spare parts for these vehicles	X <sup>(4)</sup>
8(f)(b). Lead in compliant pin connector systems other than the mating area of vehicle harness connectors	<sup>(3)</sup>	X <sup>(4)</sup>
8(g). Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	<sup>(3)</sup>	X <sup>(4)</sup>
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	Vehicles type-approved before 1 January 2016 and after that date as spare parts for these vehicles	X <sup>(4)</sup>
8(i). Lead in solders in electrical glazing applications on glass except for soldering in laminated glazing	Vehicles type-approved before 1 January 2016 and after that date as spare parts for these vehicles	X <sup>(4)</sup>
8(j). Lead in solders for soldering of laminated glazing	Vehicles type-approved before 1 January 2020 and after that date as spare parts for these vehicles	X <sup>(4)</sup>
9. Valve seats	As spare parts for engine types developed before 1 July 2003	
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: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d).		X <sup>(5)</sup> (for components other than piezo in engines)
10(b). Lead in PZT-based dielectric ceramic materials of capacitors being part of integrated circuits or discrete semiconductors		

Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)
10(c). Lead in dielectric ceramic materials of capacitors with a rated voltage of less than 125 V AC or 250 V DC	Vehicles type-approved before 1 January 2016 and spare parts for these vehicles	
10(d). Lead in the dielectric ceramic materials of capacitors compensating the temperature-related deviations of sensors in ultrasonic sonar systems	Vehicles type-approved before 1 January 2017 and after that date as spare parts for these 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 CO <sub>2</sub> 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. As an anti-corrosion agent of the carbon steel cooling system in absorption refrigerators in motor caravans up to 0,75 weight — % in the cooling solution except where the use of other cooling technologies is practicable (i.e. available on the market for the application in motor caravans) and does not lead to negative environmental, health and/or consumer safety impacts		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

Materials and components	Scope and expiry date of the exemption	To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)
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### Cadmium

16. Batteries for electrical vehicles	As spare parts for vehicles put on the market before 31 December 2008	
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(1) This exemption shall be reviewed in 2021.

(1<sup>a</sup>) Applies to aluminium alloys where lead is not intentionally introduced but is present due to the use of recycled aluminium.

(2) This exemption shall be reviewed in 2024.

(2<sup>a</sup>) Systems that have a voltage of > 75 V DC as defined in Directive 2006/95/EC of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (OJ L 374, 27.12.2006, p. 10).

(3) This exemption shall be reviewed in 2019.

(4) Dismantling if, in correlation with entry 10(a), an average threshold of 60 grams per vehicle is exceeded. For the application of this clause electronic devices not installed by the manufacturer on the production line shall not be taken into account.

(5) Dismantling if, in correlation with entries 8(a) to 8(j), an average threshold of 60 grams per vehicle is exceeded. For the application of this clause electronic devices not installed by the manufacturer on the production line shall not be taken into account.