

Commission Directive (EU) 2016/774 of 18 May 2016 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)

COMMISSION DIRECTIVE (EU) 2016/774

of 18 May 2016

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 or 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 exempted from the prohibition set out in Article 4(2)(a) thereof. Exemptions 8(e), 8(f), 8(g), 8(h), 8(j) and 10 (d) of Annex II shall be reviewed in 2014.
- (3) An assessment of technical and scientific progress has demonstrated that the use of lead in the applications covered by exemptions 8(h), 8(j) and 10(d) should not be prolonged because the use of lead in these applications has become avoidable.
- (4) The assessment of technical and scientific progress has also demonstrated that the use of lead in the applications covered by exemptions 8(e), 8(f) and 8(g) remains unavoidable as substitutes have not become available yet. However, since information exists on possible future lead substitutes in these applications, it is appropriate to introduce a review date allowing to establish if the use of lead in these applications can be discontinued.
- (5) 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.

### *Article 2*

1 Member States shall adopt and publish, within six months of its publication in the *Official Journal of the European Union* at the latest, 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, 18 May 2016.

*For the Commission*

*The President*

Jean-Claude JUNCKER

## ANNEX

## ‘ANNEX II

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

<b>Materials and components</b>	<b>Scope and expiry date of the exemption</b>	<b>To be labelled or made identifiable in accordance with Article 4(2)(b)(iv)</b>
<i>Lead as an alloying element</i>		
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). Aluminium with a lead content up to 0,4 % by weight	<sup>a</sup>	
3. Copper alloy containing up to 4 % lead by weight	<sup>a</sup>	
<sup>a</sup> This exemption shall be reviewed in 2015.		
<sup>b</sup> This exemption shall be reviewed in 2019.		
<sup>c</sup> 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.		
<sup>d</sup> 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.		

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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	
<b>Lead and lead compounds in components</b>			
5.	Batteries	<sup>a</sup>	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	As spare parts for vehicles put on the market before 1 July 2009	
<b>a</b>	This exemption shall be reviewed in 2015.		
<b>b</b>	This exemption shall be reviewed in 2019.		
<b>c</b>	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.		
<b>d</b>	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.		

	applications containing up to 0,5 % lead by weight		
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 <sup>c</sup>
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 <sup>c</sup>
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 <sup>c</sup>
8(d).	Lead used in soldering on glass in mass airflow sensors	Vehicles type-approved before 1 January 2015 and spare parts of such vehicles	X <sup>c</sup>
8(e).	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 %	<sup>b</sup>	X <sup>c</sup>

**a** This exemption shall be reviewed in 2015.

**b** This exemption shall be reviewed in 2019.

**c** 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.

**d** 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.

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	by weight or more lead)		
8(f)(a).	Lead in compliant pin connector systems	Vehicles type-approved before 1 January 2017 and spare parts for these vehicles	X <sup>c</sup>
8(f)(b).	Lead in compliant pin connector systems other than the mating area of vehicle harness connectors	<sup>b</sup>	X <sup>c</sup>
8(g).	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	<sup>b</sup>	X <sup>c</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 spare parts for these vehicles	X <sup>c</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 spare parts for these vehicles	X <sup>c</sup>

<sup>a</sup> This exemption shall be reviewed in 2015.

<sup>b</sup> This exemption shall be reviewed in 2019.

<sup>c</sup> 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.

<sup>d</sup> 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.

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8(j).	Lead in solders for soldering of laminated glazing	Vehicles type-approved before 1 January 2020 and spare parts for these vehicles	X <sup>c</sup>
9.	Valve seats	As spare parts for engine types developed before 1 July 2003	
10(a).	<p>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.</p> <p>This exemption does not cover the use of lead in:</p> <ul style="list-style-type: none"> <li>— glass in bulbs and glaze of spark plugs,</li> <li>— dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d).</li> </ul>		X <sup>d</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		
10(c).	Lead in dielectric ceramic materials of capacitors with a rated voltage of less	Vehicles type-approved before 1 January 2016 and spare parts for these vehicles	
<b>a</b>	This exemption shall be reviewed in 2015.		
<b>b</b>	This exemption shall be reviewed in 2019.		
<b>c</b>	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.		
<b>d</b>	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.		

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	than 125 V AC or 250 V DC		
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 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
<b>Hexavalent chromium</b>			
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		X
<b>a</b>	This exemption shall be reviewed in 2015.		
<b>b</b>	This exemption shall be reviewed in 2019.		
<b>c</b>	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.		
<b>d</b>	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.		

	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		
<b>Mercury</b>			
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
<b>Cadmium</b>			
16.	Batteries for electrical vehicles	As spare parts for vehicles put on the market before 31 December 2008	
a	This exemption shall be reviewed in 2015.		
b	This exemption shall be reviewed in 2019.		
c	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.		
d	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.		

**Notes:**

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

The reuse of parts of vehicles which were already on the market at the date of expiry of an exemption shall be allowed without limitation since it is not covered by Article 4(2)(a).

Spare parts put on the market after 1 July 2003 which are used for vehicles put on the market before 1 July 2003 shall be exempted from the provisions of Article 4(2)(a)<sup>(3)</sup>.

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- (1) [OJ L 269, 21.10.2000, p. 34](#)
- (2) [OJ L 312, 22.11.2008, p. 3.](#)
- (3) This clause shall not apply to wheel balance weights, carbon brushes for electric motors and brake linings.'