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► **B**      **DIRECTIVE 98/70/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**  
**of 13 October 1998**  
**relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC**  
(OJ L 350, 28.12.1998, p. 58)

Amended by:

		Official Journal		
		No	page	date
► <b><u>M1</u></b>	Commission Directive 2000/71/EC of 7 November 2000	L 287	46	14.11.2000
► <b><u>M2</u></b>	Directive 2003/17/EC of the European Parliament and of the Council of 3 March 2003	L 76	10	22.3.2003
► <b><u>M3</u></b>	Regulation (EC) No 1882/2003 of the European Parliament and of the Council of 29 September 2003	L 284	1	31.10.2003



**DIRECTIVE 98/70/EC OF THE EUROPEAN PARLIAMENT  
AND OF THE COUNCIL**

**of 13 October 1998**

**relating to the quality of petrol and diesel fuels and amending  
Council Directive 93/12/EEC**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE  
EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and  
in particular Article 100a thereof,

Having regard to the proposal from the Commission <sup>(1)</sup>,

Having regard to the opinion of the Economic and Social  
Committee <sup>(2)</sup>,

Acting in accordance with the procedure laid down in Article 189b of  
the Treaty <sup>(3)</sup> in the light of the joint text approved on 29 June 1998 by  
the Conciliation Committee,

- (1) Whereas disparity between the laws or administrative measures adopted by the Member States on specifications of conventional and alternative fuels used by vehicles equipped with positive-ignition and compression-ignition engines creates barriers to trade in the Community and may thereby directly affect the establishment and functioning of the internal market and the international competitiveness of the European vehicle and refining industries; whereas in accordance with the provisions of Article 3b of the Treaty, it therefore appears necessary to approximate the laws in this field;
- (2) Whereas Article 100a(3) of the Treaty envisages that Commission proposals aimed at the establishment and functioning of the internal market and concerning, *inter alia*, health and environmental protection will take as a base a high level of protection;
- (3) Whereas primary air pollutants such as nitrogen oxides, unburnt hydrocarbons, particulate matter, carbon monoxide, benzenes and other toxic exhaust emissions which contribute to the formation of secondary pollutants such as ozone are emitted in significant amounts through the exhaust and evaporative fumes of motor vehicles thereby posing directly and indirectly a considerable risk to human health and the environment;
- (4) Whereas despite the increasing stringency of vehicle emission limit values laid down by Council Directive 70/220/EEC <sup>(4)</sup>, and by Council Directive 88/77/EEC <sup>(5)</sup>, further measures to reduce atmospheric pollution caused by vehicles and other sources are necessary in order to achieve satisfactory air quality;
- (5) Whereas Article 4 of Directive 94/12/EC of the European Parliament and of the Council <sup>(6)</sup> introduced a new approach with regard to emission reduction policies for and beyond the year 2000 and required the Commission to examine, *inter alia*, the

<sup>(1)</sup> OJ C 77, 11.3.1997, p. 1 and OJ C 209, 10.7.1997, p. 25.

<sup>(2)</sup> OJ C 206, 7.7.1997, p. 113.

<sup>(3)</sup> Opinion of the European Parliament of 10 April 1997 (OJ C 132, 28.4.1997, p. 170), Council Common Position of 7 October 1997 (OJ C 351, 19.11.1997, p. 1) and Decision of the European Parliament of 18 February 1998 (OJ C 80, 16.3.1998, p. 92). Decision of the European Parliament of 15 September 1998 (OJ C 313, 12.10.1998). Decision of the Council of 17 September 1998.

<sup>(4)</sup> OJ L 76, 6.4.1970, p. 1. Directive as last amended by Directive 98/69/EC of the European Parliament and of the Council (see page 1 of this Official Journal).

<sup>(5)</sup> OJ L 36, 9.2.1988, p. 33. Directive as last amended by Directive 96/1/EC of the European Parliament and of the Council (OJ L 40, 17.2.1996, p. 1).

<sup>(6)</sup> OJ L 100, 19.4.1994, p. 42.

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- contribution that improvements in the quality of petrol and diesel and other fuels could make to reducing air pollution;
- (6) Whereas, in addition to an initial stage of fuel specifications beginning in the year 2000, provision must be made for a second stage, to come into effect in 2005, to enable the industry to make the necessary investments to adapt its production plans;
  - (7) Whereas petrol and diesel fuel complying with the specifications set out in Annexes I, II, III and IV are already available on the market in the European Community;
  - (8) Whereas the European auto/oil programme, the details of which are outlined in the Commission's communication on a future strategy for the control of atmospheric emissions from road transport, contributes towards a scientific, technical and economic basis for recommending the introduction at Community level of new environmental fuel specifications for petrol and diesel fuels;
  - (9) Whereas the introduction of environmental fuels specifications for petrol and diesel fuels is an important element of the cost-effective package of Europe-wide and national/regional/local measures that should be put into effect, taking into account the costs and benefits of any action;
  - (10) Whereas the implementation of a combination of Europe-wide and national/regional/local measures to reduce vehicle emissions is part of the Commission's overall strategy to reduce air emissions from mobile and stationary sources in a way that is balanced and meets cost-benefit criteria;
  - (11) Whereas it is necessary to obtain in the short term a reduction, in particular in urban areas, of polluting vehicle emissions, including primary pollutants such as unburnt hydrocarbons and carbon monoxide, secondary pollutants such as ozone, toxic emissions such as benzene and particle emissions; whereas the reduction of polluting vehicle emissions in urban areas can be immediately achieved on motor vehicles through changes in fuel composition;
  - (12) Whereas the incorporation of oxygen and the significant reduction in aromatics, olefins, benzene and sulphur can permit better fuel quality to be obtained from an air quality standpoint;
  - (13) Whereas the provisions of Council Directive 92/81/EEC of 19 October 1992 on the harmonisation of the structures of excise duties on mineral oils <sup>(1)</sup>, and in particular Article 8(4) thereof, discourage and may prevent Member States from operating excise tax differentiation designed to accelerate fuel quality above Community-wide fuel specifications;
  - (14) Whereas the use by Member States of differentiated excise taxation can encourage the introduction of more advanced fuels in line with national priorities, capacity and requirements;
  - (15) Whereas the Commission has brought forward a proposal for an Energy Products Directive; whereas this proposal has the objective of, *inter alia*, permitting Member States to make more active use of fiscal incentives through differentiated excise taxation, so as to facilitate the introduction of more advanced fuels;
  - (16) Whereas fuel specifications aiming at the reduction of both exhaust and evaporative emissions are generally lacking;
  - (17) Whereas atmospheric pollution by lead arising from the combustion of leaded petrol constitutes a risk for human health and the environment; whereas it is a great step forward that by 2000 virtually all petrol-driven road vehicles will be able to run on unleaded petrol and whereas therefore it is appropriate to restrict severely the marketing of leaded petrol;

<sup>(1)</sup> OJ L 316, 31.10.1992, p. 12. Directive as last amended by Directive 94/74/EC (OJ L 365, 31.12.1994, p. 46).

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- (18) Whereas the need for vehicle emission reduction and the availability of the necessary refinery technology justify the setting of environmental fuel specifications for the marketing of unleaded petrol and diesel fuels;
- (19) Whereas it seems appropriate to provide for the availability of two types of diesel and petrol fuel, one of which would be a higher-quality diesel and one of which would be a higher quality petrol; whereas it is appropriate for this higher quality diesel or petrol to replace diesel or petrol of lower quality on the market by 2005; whereas, however, appropriate provision should be made for such replacement to be delayed when application of the date of 2005 in a Member State would cause severe difficulties for its industries in making the necessary changes in its manufacturing facilities;
- (20) Whereas, in order to protect human health and/or the environment in specific agglomerations or in specific ecologically sensitive areas with special problems of air quality, Member States should be permitted, subject to a procedure established in this Directive, to require that fuels may be marketed only if they comply with more stringent environmental specifications than established under this Directive; whereas this procedure is a derogation from the information procedure laid down in Directive 98/34/EC of 22 June 1998 of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on information society services <sup>(1)</sup>;
- (21) Whereas, in order to ensure compliance with the fuel quality standards required under this Directive, Member States should introduce monitoring systems; whereas such monitoring systems should be based on common procedures for sampling and testing and whereas information on fuel quality collected by Member States should be communicated to the Commission according to a common format;
- (22) Whereas, on the basis of a comprehensive assessment, the Commission is to submit a proposal complementing the mandatory specifications for petrol and diesel fuels referred to in Annexes III and IV to be applied as from 1 January 2005; whereas the Commission's proposal may, as appropriate, also set down environmental specifications for other types of fuel such as liquid petroleum gas, natural gas and biofuels; whereas captive vehicle fleets exist (buses, taxis, commercial vehicles, etc.) which are responsible for a large proportion of urban pollution and would benefit from separate specifications;
- (23) Whereas further developments with regard to reference methods for measuring the specifications set out in this Directive may be desirable in the light of scientific and technical progress; whereas to this end, provisions should be made in order to adapt the Annexes to this Directive to technical progress;
- (24) Whereas Council Directive 85/210/EEC of 20 March 1985 on the approximation of the laws of the Member States concerning the lead content of petrol <sup>(2)</sup>, Council Directive 85/536/EEC of 5 December 1985 relating to crude-oil savings through the use of substitute fuel components in petrol <sup>(3)</sup>, and Article 1(1)(b) and Article 2(1) of Council Directive 93/12/EEC of 23 March 1993 relating to the sulphur content of certain liquid fuels <sup>(4)</sup>, should be repealed accordingly;

<sup>(1)</sup> OJ L 204, 21.7.1998, p. 37. Directive as amended by Directive 98/48/EC (OJ L 217, 5.8.1998, p. 18).

<sup>(2)</sup> OJ L 96, 3.4.1985, p. 25. Directive as last amended by the 1994 Act of Accession.

<sup>(3)</sup> OJ L 334, 12.12.1985, p. 20. Directive as amended by Commission Directive 87/441/EEC (OJ L 238, 21.8.1987, p. 40).

<sup>(4)</sup> OJ L 74, 27.3.1993, p. 81.

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- (25) Whereas the transitional measures for Austria referred to in Article 69 of the 1994 Act of Accession include Article 7 of Directive 85/210/EEC; whereas the application of this transitional measure should, for specific reasons of the protection of the environment, be prolonged until 1 January 2000;
- (26) Whereas a *modus vivendi* between the European Parliament, the Council and the Commission concerning the implementing measures for acts adopted in accordance with the procedure laid down in Article 189b of the Treaty <sup>(1)</sup> was concluded on 20 December 1994,

HAVE ADOPTED THIS DIRECTIVE:

*Article 1***Scope**

This Directive sets technical specifications on health and environmental grounds for fuels to be used for vehicles equipped with positive-ignition and compression-ignition engines.

**▼M2***Article 2***Definitions**

For the purposes of this Directive:

1. 'petrol' means any volatile mineral oil intended for the operation of internal combustion positive-ignition engines for the propulsion of vehicles and falling within CN codes 2710 11 41, 2710 11 45, 2710 11 49, 2710 11 51 and 2710 11 59 <sup>(2)</sup>;
2. 'diesel fuels' means gas oils falling within CN code 2710 19 41 <sup>(2)</sup> and used for self-propelling vehicles as referred to in Directive 70/220/EEC and Directive 88/77/EEC;
3. 'gas oils intended for use by non-road mobile machinery and agricultural and forestry tractors' means any petroleum-derived liquid, falling within CN codes 2710 19 41 and 2710 19 45 <sup>(2)</sup>, intended for use in engines referred to in Directives 97/68/EC <sup>(\*)</sup> and 2000/25/EC <sup>(3)</sup>;
4. 'outermost regions' means France with regard to the French overseas departments, Portugal with regard to the Azores and Madeira, and Spain with regard to the Canary Islands.

For Member States with arctic or severe winter conditions the maximum distillation point of 65 % at 250 °C for diesel fuels and gas oils may be replaced with a maximum distillation point of 10 % (vol/vol) at 180 °C.

**▼B***Article 3***Petrol**

1. No later than 1 January 2000, Member States shall prohibit the marketing of leaded petrol within their territory.
2. (a) Member States shall ensure that, no later than 1 January 2000, unleaded petrol can be marketed within their territory only if it complies with the environmental specifications set out in Annex I.

<sup>(1)</sup> OJ C 102, 4.4.1996, p. 1.

<sup>(2)</sup> The numbering of these CN codes as specified in the CCT, as amended by Commission Regulation (EC) No 2031/2001 (OJ L 279, 23.10.2001, p. 1).

<sup>(\*)</sup> OJ L 59, 27.2.1998, p. 1; Directive as amended by Commission Directive 2001/63/EC (OJ L 227, 23.8.2001, p. 41).

<sup>(3)</sup> OJ L 173, 12.7.2000, p. 1.

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- (b) Without prejudice to the provisions of subparagraph (a), Member States shall, from 1 January 2000, permit the marketing within their territory of unleaded petrol complying with the specifications of Annex III.
- (c) Member States shall also ensure that, no later than 1 January 2005, unleaded petrol can be marketed within their territory only if it complies with the environmental specifications set out in Annex III.

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- (d) Without prejudice to the provisions of subparagraph (c), Member States shall take all necessary measures to ensure that in due time, and no later than 1 January 2005, unleaded petrol with a maximum sulphur content of 10 mg/kg is marketed within their territories. Member States shall ensure that such unleaded petrol is available on an appropriately balanced geographical basis and complies in all other respects with the specifications set out in Annex III.

However, Member States may, for the outermost regions, make specific provisions for the introduction of petrol of a maximum sulphur content of 10 mg/kg. Member States making use of this provision shall inform the Commission accordingly. The Commission shall develop guidance for recommending what, for the purposes of this subparagraph, constitutes availability on an appropriately balanced geographical basis.

- (e) By no later than 1 January 2009, Member States shall ensure that unleaded petrol may be marketed in their territory only if it complies with the environmental specification set out in Annex III except for the sulphur content which shall be a maximum of 10 mg/kg.

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3. By way of derogation from paragraph 1, a Member State may be allowed, on a request to be submitted to the Commission no later than 31 August 1999, to continue to permit the marketing of leaded petrol, until at the latest 1 January 2005, if it can demonstrate that the introduction of a ban would result in severe socioeconomic problems or would not lead to overall environmental or health benefits because of, *inter alia*, the climatic situation in that Member State.

The lead content of leaded petrol shall not exceed 0,15 g/l and the benzene content shall comply with the specifications in Annex I. The other values of the specifications may remain unchanged compared to the present situation.

4. Notwithstanding the provisions of paragraph 2, a Member State may be authorised, on a request to be submitted to the Commission no later than 31 August 1999, to continue to permit the marketing within its territory, until at the latest 1 January 2003, of unleaded petrol with a sulphur content which does not comply with the specification for sulphur content in Annex I but which does not exceed the current content, if it can demonstrate that severe difficulties would ensue for its industries in making the necessary changes in their manufacturing facilities during the period of time between the date of adoption of this Directive and 1 January 2000.

5. Notwithstanding the provisions of paragraph 2, a Member State may be authorised, on a request to be submitted to the Commission no later than 31 August 2003, to continue to permit the marketing within its territory, until at the latest 1 January 2007, of unleaded petrol with a sulphur content which does not comply with Annex III but which does comply with Annex I, if it can demonstrate that severe difficulties would ensue for its industries in making the necessary changes in their manufacturing facilities during the period of time between the date of adoption of this Directive and 1 January 2005.

6. The Commission may authorise the derogations referred to in paragraphs 3, 4 and 5 in accordance with the Treaty.

The Commission shall notify the Member States and inform the European Parliament and the Council of its decision.

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7. Notwithstanding paragraph 1, Member States may continue to permit the marketing of small quantities of leaded petrol with the specifications mentioned in the second subparagraph of paragraph 3 to a maximum of 0,5 % of total sales to be used by old vehicles of a characteristic nature and to be distributed through special interest groups.

*Article 4***Diesel fuel**

1. (a) Member States shall ensure that, no later than 1 January 2000, diesel fuel can be marketed within their territory only if it complies with the environmental specifications set out in Annex II.
- (b) Without prejudice to the provisions of subparagraph (a), Member States shall, from 1 January 2000, permit the marketing within their territory of diesel fuel complying with the specifications of Annex IV.
- (c) Member States shall also ensure that, no later than 1 January 2005, diesel fuel can be marketed within their territory only if it complies with the environmental specifications set out in Annex IV.

**▼M2**

- (d) Without prejudice to the provisions of subparagraph (c), Member States shall take all necessary measures to ensure that in due time, and no later than 1 January 2005, diesel fuel with a maximum sulphur content of 10 mg/kg is marketed within their territories. Member States shall ensure that such diesel fuel is available on an appropriately balanced geographical basis and complies in all other respects with the specifications set out in Annex IV.

However, Member States may, for the outermost regions, make specific provisions for the introduction of diesel fuel of a maximum sulphur content of 10 mg/kg. Member States making use of this provision shall inform the Commission accordingly.

- (e) By no later than 1 January 2009, Member States shall ensure, subject to the provisions of Article 9(1)(a), that diesel fuel may be marketed in their territory only if it complies with the environmental specification set out in Annex IV except for the sulphur content which shall be a maximum of 10 mg/kg.

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2. Notwithstanding the provisions of paragraph 1, a Member State may be authorised, on a request to be submitted to the Commission no later than 31 August 1999, to continue to permit the marketing within its territory, until at the latest 1 January 2003, of diesel fuel with a sulphur content which does not comply with the specification for sulphur content in Annex II but which does not exceed the current content, if it can demonstrate that severe difficulties would ensue for its industries in making the necessary changes in their manufacturing facilities during the period of time between the date of adoption of this Directive and 1 January 2000.

3. Notwithstanding the provisions of paragraph 1, a Member State may be authorised, on a request to be submitted to the Commission no later than 31 August 2003, to continue to permit the marketing within its territory, until at the latest 1 January 2007, of diesel fuel with a sulphur content which does not comply with Annex IV but which does comply with Annex II, if it can demonstrate that severe difficulties would ensue for its industries in making the necessary changes in their manufacturing facilities during the period of time between the date of adoption of this Directive and 1 January 2005.

4. The Commission may authorise the derogations referred to in paragraphs 2 and 3 in accordance with the Treaty.

The Commission shall notify the Member States and inform the Council and the European Parliament of its decision.

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5. Member States shall ensure that gas oils intended for use by non-road mobile machinery and agricultural and forestry tractors marketed within their territory contain less than 2 000 mg/kg of sulphur. By 1 January 2008 at the latest, the maximum permissible sulphur content of gas oils intended for use by non-road mobile machinery and agricultural and forestry tractors shall be 1 000 mg/kg. However, Member States may require a lower limit or the same sulphur content for diesel fuels stipulated in this Directive.

**▼ B***Article 5***Free circulation**

No Member State may prohibit, restrict or prevent the placing on the market of fuels which comply with the requirements of this Directive.

*Article 6***Marketing of fuels with more stringent environmental specifications****▼ M2**

1. By way of derogation from Articles 3, 4 and 5 and in accordance with Article 95(10) of the Treaty, a Member State may take measures to require that in specific areas, within its territory, fuels may be marketed only if they comply with more stringent environmental specifications than those provided for in this Directive for all or part of the vehicle fleet with a view to protecting the health of the population in a specific agglomeration or the environment in a specific ecologically or environmentally sensitive area in that Member State, if atmospheric or ground water pollution constitutes, or may reasonably be expected to constitute, a serious and recurrent problem for human health or the environment.

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2. A Member State wishing to make use of a derogation provided for in paragraph 1 shall submit its request in advance, including the justification for it, to the Commission. The justification shall include evidence that the derogation respects the principle of proportionality and that it will not disrupt the free movements of persons and goods.

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3. The Member States involved shall provide the Commission with relevant environmental data for the agglomeration or area in question as well as the predicted effects on the environment of the measures proposed.

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4. The Commission shall provide this information to the other Member States without delay.

5. Member States may give their comments on the request and its justification within two months of the date of the Commission's provision of information.

6. The Commission shall take a decision on the request of Member States within three months after the date on which Member States have submitted their comments. The Commission will take Member States' comments into account and will notify them of its decision and inform the European Parliament and the Council at the same time.

**▼ M2****▼ B***Article 7***Change in supply of crude oils**

If, as a result of exceptional events, a sudden change in the supply of crude oils or petroleum products renders it difficult for the refineries in a Member State to respect the fuel specification requirements of Articles 3 and 4, that Member State shall inform the Commission thereof.



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The Commission, after informing the other Member States, may authorise higher limit values in that Member State for one or more fuel components for a period not exceeding six months.

The Commission shall notify the Member States and inform the European Parliament and the Council of its decision.

Any Member State may refer the Commission's decision to the Council within one month of its notification.

The Council, acting by a qualified majority, may take a different decision within one month of the matter being referred to it.

**▼M2***Article 8***Monitoring compliance and reporting**

1. Member States shall monitor compliance with the requirements of Articles 3 and 4, in respect of petrol and diesel fuels, on the basis of the analytical methods referred to in European standards EN 228:1999 and EN 590:1999 respectively.

2. Member States shall establish a fuel quality monitoring system in accordance with the requirements of the relevant European standard. The use of an alternative fuel quality monitoring system may be permitted provided that such a system ensures results of equivalent confidence.

3. Each year by 30 June, the Member States shall submit a report of national fuel quality data for the preceding calendar year. The first report shall be submitted by 30 June 2002. From 1 January 2004, the format for this report shall be consistent with that described in the relevant European standard. In addition, Member States shall report the total volumes of petrol and diesel fuels marketed in their territories and the volumes of unleaded petrol and diesel fuels marketed with a maximum sulphur content of 10 mg/kg. Furthermore, Member States shall report annually on the availability on an appropriately balanced geographical basis of petrol and diesel fuels with a maximum sulphur content of 10 mg/kg that are marketed within their territory.

4. The Commission shall ensure that the information submitted pursuant to paragraph 3 is promptly made available by appropriate means. The Commission shall publish annually, and for the first time by 31 December 2003, a report on actual fuel quality in the different Member States and geographical coverage of fuels with a maximum sulphur content of 10 mg/kg, aiming to provide an overview of the fuels quality data in the different Member States.

*Article 9***Review process**

1. By 31 December 2005 at the latest, the Commission shall review the fuel specifications of Annexes III and IV with the exception of sulphur content and propose amendments, if appropriate, in keeping with current and future requirements of Community vehicle emission and air quality legislation and related objectives. In particular, the Commission shall consider:

- (a) the necessity of any change to the end date for the full introduction of diesel fuel, with a maximum sulphur content of 10 mg/kg, in order to ensure that there is no overall increase in greenhouse gas emissions. This analysis shall consider developments in refinery processing technologies, expected fuel economy improvements of vehicles and the rate at which new fuel-efficient technologies are introduced into the vehicle fleet;
- (b) the implications of new Community legislation setting air quality standards for substances such as polycyclic aromatic hydrocarbons;
- (c) the outcome of the review described in Article 10 of Council Directive 1999/30/EC of 22 April 1999 relating to limit values for

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sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air <sup>(1)</sup>;

- (d) the outcome of the review of the various commitments by the Japanese <sup>(2)</sup>, Korean <sup>(3)</sup> and European <sup>(4)</sup> automobile manufacturers to reduce the fuel consumption and carbon dioxide emissions of new passenger cars in the light of the fuel quality changes introduced by this Directive and progress towards the Community target of 120 g/km CO<sub>2</sub> emissions for the average vehicle;
- (e) the outcome of the review required by Article 7 of Directive 1999/96/EC of the European Parliament and of the Council of 13 December 1999 on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending Council Directive 88/77/EEC <sup>(5)</sup> and the confirmation of the mandatory NO<sub>x</sub> emission standard for heavy duty engines;
- (f) the effective functioning of new pollution abatement technologies and the impact of metallic additives and other relevant issues on their performance and developments affecting international fuel markets;
- (g) the need to encourage the introduction of alternative fuels, including biofuels, as well as the need to introduce modifications to other parameters in the fuel specifications, both for conventional and for alternative fuels, for example the modifications to the maximum volatility limits for petrol contained in this Directive required for their application to blends of bioethanol with petrol and any subsequent necessary changes to EN 228:1999.

2. When considering its proposal for the next stage of emission standards for compression ignition engines in non-road applications, the Commission shall establish in parallel the required fuel quality. In so doing, the Commission shall take into account the importance of the emissions from this sector, the overall environmental and health benefits, the implications in the Member States regarding fuel distribution and the costs and benefits of a more restrictive sulphur level than is currently required for fuel used in compression ignition engines in non-road applications, and shall then align appropriate fuel quality requirements for non-road applications with the on-road sector by a certain date, currently expected to be 1 January 2009, to be confirmed or amended by the Commission in its review in 2005.

3. In addition to the provisions of paragraph 1 the Commission may, *inter alia*, bring forward:

- proposals taking into consideration the particular situation of captive fleets and the need to propose levels of specifications for the special fuels they use,
- proposals setting levels of specifications applicable to liquid petroleum gas, natural gas and biofuels.

#### *Article 9a*

#### **Penalties**

Member States shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties determined must be effective, proportionate and dissuasive.

<sup>(1)</sup> OJ L 163, 29.6.1999, p. 41; Directive as amended by Commission Decision 2001/744/EC (OJ L 278, 23.10.2001, p. 35).

<sup>(2)</sup> OJ L 100, 20.4.2000, p. 57.

<sup>(3)</sup> OJ L 100, 20.4.2000, p. 55.

<sup>(4)</sup> OJ L 40, 13.2.1999, p. 49.

<sup>(5)</sup> OJ L 44, 16.2.2000, p. 1.

**▼B***Article 10***Procedure for adaptation to technical progress****▼M2**

1. The measurement methods to be applied in relation to the parameters specified in Annexes I and III shall be those analytical methods set out in European standard EN 228:1999. The measurement methods to be applied in relation to the parameters specified in Annexes II and IV shall be those analytical methods set out in European standard EN 590:1999. Member States may adopt the analytical methods specified in replacement EN 228:1999 or EN 590:1999 standards, as appropriate, if they can be shown to give at least the same accuracy and at least the same level of precision as the analytical methods they replace. In the event that adaptation of the permitted analytical methods to technical progress is necessary, amendments may be adopted by the Commission in accordance with the procedure referred to in Article 11(2).

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2. Such adaptation must not result in any direct or indirect modification of the limit values laid down in this Directive or to any change in the dates from which they apply.

**▼M3***Article 11***Committee procedure**

1. Where reference is made to this Article, Articles 5 and 7 of Decision 1999/468/EC <sup>(1)</sup> shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

2. The Committee shall adopt its rules of procedure.

**▼B***Article 12***Repeal and amendment of the Directives related to the fuel quality of petrol and diesel fuels**

1. Directives 85/210/EEC, 85/536/EEC and 87/441/EEC are repealed as from 1 January 2000.

2. Directive 93/12/EEC is amended by deleting Article 1(1)(b) and Article 2(1) as from 1 January 2000.

*Article 13***Transposition into national legislation**

1. Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive not later than 1 July 1999. They shall immediately inform the Commission thereof.

Member States shall apply these measures from 1 January 2000.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

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

<sup>(1)</sup> Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (OJ L 184, 17.7.1999, p. 23).

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*Article 14*

**Austria**

Article 7 of Directive 85/210/EEC, as far as the benzene content of petrol referred to in Article 4 of that Directive is concerned, shall, until 1 January 2000, not apply to Austria.

*Article 15*

**Entry into force of the Directive**

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

*Article 16*

**Addressees**

This Directive is addressed to the Member States.

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## ANNEX I

## ENVIRONMENTAL SPECIFICATIONS FOR MARKET FUELS TO BE USED FOR VEHICLES EQUIPPED WITH POSITIVE-IGNITION ENGINES

Type: **Petrol**

Parameter <sup>(1)</sup>	Unit	Limits <sup>(2)</sup>	
		Minimum	Maximum
Research octane number		95 <sup>(3)</sup>	—
Motor octane number		85	—
Vapour pressure, summer period <sup>(4)</sup>	kPa	—	60,0 <sup>(5)</sup>
Distillation:			
— percentage evaporated at 100 °C	% v/v	46,0	—
— percentage evaporated at 150 °C	% v/v	75,0	—
Hydrocarbon analysis:			
— olefins	% v/v	—	18,0 <sup>(6)</sup>
— aromatics	% v/v	—	42,0
— benzene	% v/v	—	1,0
Oxygen content	% m/m	—	2,7
Oxygenates			
— Methanol (stabilising agents must be added)	% v/v	—	3
— Ethanol (stabilising agents may be necessary)	% v/v	—	5
— Iso-propyl alcohol	% v/v	—	10
— Tert-butyl alcohol	% v/v	—	7
— Iso-butyl alcohol	% v/v	—	10
— Ethers containing five or more carbon atoms per molecule	% v/v	—	15
— Other oxygenates <sup>(7)</sup>	% v/v	—	10
Sulphur content	mg/kg	—	150
Lead content	g/l	—	0,005

<sup>(1)</sup> Test methods shall be those specified in EN 228:1999. Member States may adopt the analytical method specified in replacement EN 228:1999 standard if it can be shown to give at least the same accuracy and at least the same level of precision as the analytical method it replaces.

<sup>(2)</sup> The values quoted in the specification are 'true values'. In the establishment of their limit values, the terms of ISO 4259 'Petroleum products - Determination and application of precision data in relation to methods of test' have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in ISO 4259 (published in 1995).

<sup>(3)</sup> Unleaded regular grade petrol may be marketed with a minimum motor octane number (MON) of 81 and a minimum research octane number (RON) of 91.

<sup>(4)</sup> The summer period shall begin no later than 1 May and shall not end before 30 September. For Member States with arctic or severe winter conditions, the summer period shall begin no later than 1 June and shall not end before 31 August.

<sup>(5)</sup> For Member States with arctic or severe winter conditions the vapour pressure shall not exceed 70 kPa during the summer period.

<sup>(6)</sup> Unleaded regular grade petrol may be marketed with a maximum olefin content of 21 % v/v.

<sup>(7)</sup> Other mono-alcohols and ethers with a final boiling point no higher than that stated in EN 228:1999.

▼ **M2**

## ANNEX II

**ENVIRONMENTAL SPECIFICATIONS FOR MARKET FUELS TO BE USED FOR VEHICLES EQUIPPED WITH COMPRESSION IGNITION ENGINES***Type: Diesel fuel*

Parameter <sup>(1)</sup>	Unit	Limits <sup>(2)</sup>	
		Minimum	Maximum
Cetane number		51,0	—
Density at 15 °C	kg/m <sup>3</sup>	—	845
Distillation: — 95% (v/v) recovered at	°C	—	360
Polycyclic aromatic hydrocarbons	% m/m	—	11
Sulphur content	mg/kg	—	350

(1) Test methods shall be those specified in EN 590:1999. Member States may adopt the analytical method specified in replacement EN 590:1999 standard if it can be shown to give at least the same accuracy and at least the same level of precision as the analytical method it replaces.

(2) The values quoted in the specification are 'true values'. In the establishment of their limit values, the terms of ISO 4259 'Petroleum products - Determination and application of precision data in relation to methods of test' have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in ISO 4259 (published in 1995).

▼ M2

## ANNEX III

## ENVIRONMENTAL SPECIFICATIONS FOR MARKET FUELS TO BE USED FOR VEHICLES EQUIPPED WITH POSITIVE-IGNITION ENGINES

Type: **Petrol**

Parameter <sup>(1)</sup>	Unit	Limits <sup>(2)</sup>	
		Minimum	Maximum
Research octane number		95 <sup>(3)</sup>	—
Motor octane number		85	—
Vapour pressure, summer period <sup>(4)</sup>	kPa	—	60,0 <sup>(5)</sup>
Distillation:			
— percentage evaporated at 100 °C	% v/v	46,0	—
— percentage evaporated at 150 °C	% v/v	75,0	—
Hydrocarbon analysis:			
— olefins	% v/v	—	18,0
— aromatics	% v/v	—	35,0
— benzene	% v/v	—	1,0
Oxygen content	% m/m	—	2,7
Oxygenates			
— methanol (stabilising agents must be added)	% v/v	—	3
— ethanol (stabilising agents may be necessary)	% v/v	—	5
— iso-propyl alcohol	% v/v	—	10
— tert-butyl alcohol	% v/v	—	7
— iso-butyl alcohol	% v/v	—	10
— ethers containing 5 or more carbon atoms per molecule	% v/v	—	15
— Other oxygenates <sup>(6)</sup>	% v/v	—	10
Sulphur content	mg/kg	—	50
	mg/kg	—	10 <sup>(7)</sup>
Lead content	g/l	—	0,005

(1) Test methods shall be those specified in EN 228:1999. Member States may adopt the analytical method specified in replacement EN 228:1999 standard if it can be shown to give at least the same accuracy and at least the same level of precision as the analytical method it replaces.

(2) The values quoted in the specification are 'true values'. In the establishment of their limit values the terms of ISO 4259 'Petroleum products - Determination and application of precision data in relation to methods of test' have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in ISO 4259 (published in 1995).

(3) Member States may decide to continue to permit the marketing of unleaded regular grade petrol with a minimum motor octane number (MON) of 81 and a minimum research octane number (RON) of 91.

(4) The summer period shall begin no later than 1 May and shall not end before 30 September. For Member States with arctic or severe winter conditions, the summer period shall begin no later than 1 June and shall not end before 31 August.

(5) For Member States with arctic or severe winter conditions, the vapour pressure shall not exceed 70 kPa during the summer period.

(6) Other mono-alcohols and ethers with a final boiling point no higher than that stated in EN 228:1999.

(7) In accordance with Article 3(2), by no later than 1 January 2005 unleaded petrol with a maximum sulphur content of 10 mg/kg must be marketed and be available on an appropriately balanced geographical basis within the territory of a Member State. By 1 January 2009 all unleaded petrol marketed in the territory of a Member State must have a maximum sulphur content of 10 mg/kg.

▼ **M2**

## ANNEX IV

**ENVIRONMENTAL SPECIFICATIONS FOR MARKET FUELS TO BE USED FOR VEHICLES EQUIPPED WITH COMPRESSION IGNITION ENGINES***Type: Diesel fuel*

Parameter <sup>(1)</sup>	Unit	Limits <sup>(2)</sup>	
		Minimum	Maximum
Cetane number		51,0	—
Density at 15 °C	kg/m <sup>3</sup>	—	845
Distillation: — 95 % (v/v) recovered at	°C	—	360
Polycyclic aromatic hydrocarbons	% m/m	—	11
Sulphur content	mg/kg	—	50
	mg/kg	—	10 <sup>(3)</sup>

<sup>(1)</sup> Test methods shall be those specified in EN 590:1999. Member States may adopt the analytical method specified in replacement EN 590:1999 standard, if it can be shown to give at least the same accuracy and at least the same level of precision as the analytical method it replaces.

<sup>(2)</sup> The values quoted in the specification are 'true values'. In the establishment of their limit values the terms of ISO 4259 'Petroleum products - Determination and application of precision data in relation to methods of test' have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in ISO 4259 (published in 1995).

<sup>(3)</sup> In accordance with Article 4(1), by no later than 1 January 2005 diesel fuel with a maximum sulphur content of 10 mg must be marketed and be available on an appropriately balanced geographical basis within the territory of a Member State. In addition, and subject to the review in Article 9(1), by 1 January 2009 all diesel fuel marketed in the territory of a Member State must have a maximum sulphur content of 10 mg/kg.