ANNEX

ANNEX I

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

Type: **Petrol**

Parameter[a]	**Unit**	**Limits**[b]	
		Minimum	**Maximum**
Research octane number		95[c]	—
Motor octane number		85	—
Vapour pressure, summer period[d]	kPa	—	60,0[e]
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		3,7
Oxygenates			
— Methanol	% v/v		3,0
— Ethanol (stabilising agents may be necessary)	% v/v		10,0
— Iso-propyl alcohol	% v/v	—	12,0
— Tert-butyl alcohol	% v/v	—	15,0
— Iso-butyl alcohol	% v/v	—	15,0

— Ethers containing five or more carbon atoms per molecule	% v/v	—	22,0
— Other oxygenates[f]	% v/v	—	15,0
Sulphur content	mg/kg	—	10,0
Lead content	g/l	—	0,005

a Test methods shall be those specified in EN 228:2004. Member States may adopt the analytical method specified in replacement EN 228:2004 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.

b The values quoted in the specification are 'true values'. In the establishment of their limit values, the terms of EN ISO 4259:2006 '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 EN ISO 4259:2006.

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

d The summer period shall begin no later than 1 May and shall not end before 30 September. For Member States with low ambient summer temperatures the summer period shall begin no later than 1 June and shall not end before 31 August.

e In the case of Member States with low ambient summer temperatures and for which a derogation is in effect in accordance with Article 3(4) and (5), the maximum vapour pressure shall be 70 kPa. In the case of Member States for which a derogation is in effect in accordance with Article 3(4) and (5) for petrol containing ethanol, the maximum vapour pressure shall be 60 kPa plus the vapour pressure waiver specified in Annex III.

f Other mono-alcohols and ethers with a final boiling point no higher than that stated in EN 228:2004.

ANNEX II

ENVIRONMENTAL SPECIFICATIONS FOR MARKET FUELS TO BE USED FOR VEHICLES EQUIPPED WITH COMPRESSION IGNITION ENGINES

Type: **Diesel**

Parameter[a]	**Unit**	**Limits[b]**	
		Minimum	**Maximum**
Cetane number		51,0	—
Density at 15 °C	kg/m[c]	—	845,0

a Test methods shall be those specified in EN 590:2004. Member States may adopt the analytical method specified in replacement EN 590:2004 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.

b The values quoted in the specification are 'true values'. In the establishment of their limit values, the terms of EN ISO 4259:2006 '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 EN ISO 4259:2006.

c FAME shall comply with EN 14214.

Distillation:			
— 95 % v/v recovered at:	°C	—	360,0
Polycyclic aromatic hydrocarbons	% m/m	—	8,0
Sulphur content	mg/kg	—	10,0
FAME content — EN 14078	% v/v	—	7,0[c]

a Test methods shall be those specified in EN 590:2004. Member States may adopt the analytical method specified in replacement EN 590:2004 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.

b The values quoted in the specification are 'true values'. In the establishment of their limit values, the terms of EN ISO 4259:2006 '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 EN ISO 4259:2006.

c FAME shall comply with EN 14214.

ANNEX III

VAPOUR PRESSURE WAIVER PERMITTED FOR PETROL CONTAINING BIOETHANOL

Bioethanol content (% v/v)	Vapour pressure waiver permitted (kPa)
0	0
1	3,65
2	5,95
3	7,20
4	7,80
5	8,0
6	8,0
7	7,94
8	7,88
9	7,82
10	7,76

The permitted vapour pressure waiver for intermediate bioethanol content between the values listed shall be determined by a straight line interpolation between the bioethanol content immediately above and that immediately below the intermediate value.

ANNEX IV

RULES FOR CALCULATING LIFE CYCLE GREENHOUSE EMISSIONS FROM BIOFUELS

A.Typical and default values for biofuels if produced with no net carbon emissions from land use change

Biofuel production pathway	**Typical greenhouse gas emission saving**	**Default greenhouse gas emission saving**
Sugar beet ethanol	61 %	52 %
Wheat ethanol (process fuel not specified)	32 %	16 %
Wheat ethanol (lignite as process fuel in CHP plant)	32 %	16 %
Wheat ethanol (natural gas as process fuel in conventional boiler)	45 %	34 %
Wheat ethanol (natural gas as process fuel in CHP plant)	53 %	47 %
Wheat ethanol (straw as process fuel in CHP plant)	69 %	69 %
Corn (maize) ethanol, Community produced (natural gas as process fuel in CHP plant)	56 %	49 %
Sugar cane ethanol	71 %	71 %
The part from renewable sources of ethyl-Tertio-butyl-ether (ETBE)	Equal to that of the ethanol production Pathway used	
The part from renewable sources of tertiary-amyl-ethyl-ether (TAEE)	Equal to that of the ethanol production pathway used	
Rape seed biodiesel	45 %	38 %
Sunflower biodiesel	58 %	51 %
Soybean biodiesel	40 %	31 %
Palm oil biodiesel (process not specified)	36 %	19 %
Palm oil biodiesel (process with methane capture at oil mill)	62 %	56 %

a Not including animal oil produced from animal by-products classified as category 3 material in accordance with Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.

b OJ L 273, 10.10.2002, p. 1.

Waste vegetable or animal[a] oil biodiesel	88 %	83 %
Hydrotreated vegetable oil from rape seed	51 %	47 %
Hydrotreated vegetable oil from sunflower	65 %	62 %
Hydrotreated vegetable oil from palm oil (process not specified)	40 %	26 %
Hydrotreated vegetable oil from palm oil (process with methane capture at oil mill)	68 %	65 %
Pure vegetable oil from rape seed	58 %	57 %
Biogas from municipal organic waste as compressed natural gas	80 %	73 %
Biogas from wet manure as compressed natural gas	84 %	81 %
Biogas from dry manure as compressed natural gas	86 %	82 %

a Not including animal oil produced from animal by-products classified as category 3 material in accordance with Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.

b OJ L 273, 10.10.2002, p. 1.

B. Estimated typical and default values for future biofuels that were not on the market or were on the market only in negligible quantities in January 2008, if produced with no net carbon emissions from land use change

Biofuel production pathway	**Typical greenhouse gas emission saving**	**Default greenhouse gas emission saving**
Wheat straw ethanol	87 %	85 %
Waste wood ethanol	80 %	74 %
Farmed wood ethanol	76 %	70 %
Waste wood Fischer-Tropsch diesel	95 %	95 %
Farmed wood Fischer-Tropsch diesel	93 %	93 %
Waste wood dimethylether (DME)	95 %	95 %
Farmed wood DME	92 %	92 %
Waste wood methanol	94 %	94 %

Farmed wood methanol	91 %	91 %
The part from renewable sources of methyl-tertio-butyl-ether (MTBE)	Equal to that of the methanol production pathway used	

C. Methodology

1. Greenhouse gas emissions from the production and use of biofuels shall be calculated as:

$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr} - e_{ee}$$

where

E	=	total emissions from the use of the fuel;
e_{ec}	=	emissions from the extraction or cultivation of raw materials;
e_l	=	annualised emissions from carbon stock changes caused by land use change;
e_p	=	emissions from processing;
e_{td}	=	emissions from transport and distribution;
e_u	=	emissions from the fuel in use;
e_{sca}	=	emission savings from soil carbon accumulation via improved agricultural management;
e_{ccs}	=	emission savings from carbon capture and geological storage;
e_{ccr}	=	emission savings from carbon capture and replacement; and
e_{ee}	=	emission savings from excess electricity from cogeneration.

Emissions from the manufacture of machinery and equipment shall not be taken into account.

2. Greenhouse gas emissions from fuels, E, shall be expressed in terms of grams of CO_2 equivalent per MJ of fuel, gCO_{2eq}/MJ.

3. By derogation from point 2, values calculated in terms of gCO_{2eq}/MJ may be adjusted to take into account differences between fuels in useful work done, expressed in terms of km/MJ. Such adjustments shall only be made where evidence of the differences in useful work done is provided.

4. Greenhouse gas emission savings from biofuels shall be calculated as:

$$SAVING = (E_F - E_B)/E_F$$

where

E_B	=	total emissions from the biofuel; and
E_F	=	total emissions from the fossil fuel comparator.

5. The greenhouse gases taken into account for the purposes of point 1 shall be CO_2, N_2O and CH_4. For the purpose of calculating CO_2 equivalence, those gases shall be valued as follows:

CO_2	:	1
N_2O	:	296
CH_4	:	23

6. Emissions from the extraction or cultivation of raw materials, e_{ec}, shall include emissions from the extraction or cultivation process itself; from the collection of raw materials; from waste and leakages; and from the production of chemicals or products used in extraction or cultivation. Capture of CO_2 in the cultivation of raw materials shall be excluded. Certified reductions of greenhouse gas emissions from flaring at oil production sites anywhere in the world shall be deducted. Estimates of emissions from cultivation may be derived from the use of averages calculated for smaller geographical areas than those used in the calculation of the default values, as an alternative to using actual values.

7. Annualised emissions from carbon stock changes caused by land use change, e_l, shall be calculated by dividing total emissions equally over 20 years. For the calculation of those emissions the following rule shall be applied:

$e_l = (CS_R - CS_A) \times 3{,}664 \times 1/20 \times 1/P - e_B$[(1)],

where

e_l	=	annualised greenhouse gas emissions from carbon stock change due to land use change (measured as mass of CO_2-equivalent per unit biofuel energy);
CS_R	=	the carbon stock per unit area associated with the reference land use (measured as mass of carbon per unit area, including both soil and vegetation). The reference land use shall be the land use in January 2008 or 20 years before the raw material was obtained, whichever was the later;
CS_A	=	the carbon stock per unit area associated with the actual land use (measured as mass of carbon per unit area, including both soil and vegetation). In cases where the carbon stock accumulates over more than one year, the value attributed to CS_A shall be the estimated stock per unit area after 20 years or when the crop reaches maturity, whichever is the earlier;
P	=	the productivity of the crop (measured as biofuel energy per unit area per year); and
e_B	=	bonus of 29 gCO_{2eq}/MJ biofuel if biomass is obtained from restored degraded land under the conditions provided for in point 8.

8. The bonus of 29 gCO_{2eq}/MJ shall be attributed if evidence is provided that the land:

(a) was not in use for agriculture or any other activity in January 2008; and

(b) falls into one of the following categories:

   (i) severely degraded land, including such land that was formerly in agricultural use;

   (ii) heavily contaminated land.

The bonus of 29 gCO_{2eq}/MJ shall apply for a period of up to 10 years from the date of conversion of the land to agricultural use, provided that a steady increase in carbon stocks as well as a sizable reduction in erosion phenomena for land falling under (i) are ensured and that soil contamination for land falling under (ii) is reduced.

9. The categories mentioned in point 8(b) are defined as follows:

(a) 'severely degraded land' means land that, for a significant period of time, has either been significantly salinated or presented significantly low organic matter content and been severely eroded;

(b) 'heavily contaminated land' means land that is unfit for the cultivation of food and feed due to soil contamination.

Such land shall include land that has been the subject of a Commission decision in accordance with the fourth subparagraph of Article 7c(3).

10. The guide adopted pursuant to point 10 of Part C of Annex V to Directive 2009/28/EC shall serve as the basis of the calculation of land carbon stocks for the purposes of this Directive.

11. Emissions from processing, e_p, shall include emissions from the processing itself; from waste and leakages; and from the production of chemicals or products used in processing.

In accounting for the consumption of electricity not produced within the fuel production plant, the greenhouse gas emission intensity of the production and distribution of that electricity shall be assumed to be equal to the average emission intensity of the production and distribution of electricity in a defined region. As an exception to this rule producers may use an average value for an individual electricity production plant for electricity produced by that plant, if that plant is not connected to the electricity grid.

12. Emissions from transport and distribution, e_{td}, shall include emissions from the transport and storage of raw and semi-finished materials and from the storage and distribution of finished materials. Emissions from transport and distribution to be taken into account under point 6 shall not be covered by this point.

13. Emissions from the fuel in use, e_u, shall be taken to be zero for biofuels.

14. Emission savings from carbon capture and geological storage e_{ccs}, that have not already been accounted for in e_p, shall be limited to emissions avoided through the capture and sequestration of emitted CO_2 directly related to the extraction, transport, processing and distribution of fuel.

15. Emission savings from carbon capture and replacement, e_{ccr}, shall be limited to emissions avoided through the capture of CO_2 of which the carbon originates from biomass and which is used to replace fossil-derived CO_2 used in commercial products and services.

16. Emission savings from excess electricity from cogeneration, e_{ee}, shall be taken into account in relation to the excess electricity produced by fuel production systems that use cogeneration except where the fuel used for the cogeneration is a co-product other than an agricultural crop residue. In accounting for that excess electricity, the size of the cogeneration unit shall be assumed to be the minimum necessary for the cogeneration unit to supply the heat that is needed to produce the fuel. The greenhouse gas emission savings associated with that excess electricity shall be taken to be equal to the amount of greenhouse gas that would be emitted when an equal amount of electricity was generated in a power plant using the same fuel as the cogeneration unit.

17. Where a fuel production process produces, in combination, the fuel for which emissions are being calculated and one or more other products (co-products), greenhouse gas emissions shall be divided between the fuel or its intermediate product

and the co-products in proportion to their energy content (determined by lower heating value in the case of co-products other than electricity).

18. For the purposes of the calculation referred to in point 17, the emissions to be divided shall be $e_{ec} + e_l +$ those fractions of e_p, e_{td} and e_{ee} that take place up to and including the process step at which a co-product is produced. If any allocation to co-products has taken place at an earlier process step in the life-cycle, the fraction of those emissions assigned in the last such process step to the intermediate fuel product shall be used for this purpose instead of the total of those emissions.

All co-products, including electricity that does not fall under the scope of point 16, shall be taken into account for the purposes of that calculation, except for agricultural crop residues, including straw, bagasse, husks, cobs and nut shells. Co-products that have a negative energy content shall be considered to have an energy content of zero for the purpose of the calculation.

Wastes, agricultural crop residues, including straw, bagasse, husks, cobs and nut shells, and residues from processing, including crude glycerine (glycerine that is not refined), shall be considered to have zero life-cycle greenhouse gas emissions up to the process of collection of those materials.

In the case of fuels produced in refineries, the unit of analysis for the purposes of the calculation referred to in point 17 shall be the refinery.

19. For the purposes of the calculation referred to in point 4, the fossil fuel comparator E_F shall be the latest available actual average emissions from the fossil part of petrol and diesel consumed in the Community as reported under this Directive. If no such data are available, the value used shall be 83,8 gCO_{2eq}/MJ.

D. Disaggregated default values for biofuels

Disaggregated default values for cultivation: 'e_{ec}' as defined in Part C of this Annex

Biofuel production pathway	Typical greenhouse gas emissions(gCO_{2eq}/MJ)	Default greenhouse gas emissions(gCO_{2eq}/MJ)
Sugar beet ethanol	12	12
Wheat ethanol	23	23
Corn (maize) ethanol, Community produced	20	20
Sugar cane ethanol	14	14
The part from renewable sources of ETBE	Equal to that of the ethanol production pathway used	
The part from renewable sources of TAEE	Equal to that of the ethanol production pathway used	
Rape seed biodiesel	29	29
Sunflower biodiesel	18	18
Soybean biodiesel	19	19
Palm oil biodiesel	14	14

a Not including animal oil produced from animal by-products classified as category 3 material in accordance with Regulation (EC) No 1774/2002.

Waste vegetable or animal[a] oil biodiesel	0	0
Hydrotreated vegetable oil from rape seed	30	30
Hydrotreated vegetable oil from sunflower	18	18
Hydrotreated vegetable oil from palm oil	15	15
Pure vegetable oil from rape seed	30	30
Biogas from municipal organic waste as compressed natural gas	0	0
Biogas from wet manure as compressed natural gas	0	0
Biogas from dry manure as compressed natural gas	0	0

a Not including animal oil produced from animal by-products classified as category 3 material in accordance with Regulation (EC) No 1774/2002.

Disaggregated default values for processing (including excess electricity): '$e_p - e_{ee}$' as defined in Part C of this Annex

Biofuel production pathway	Typical greenhouse gas emissions(gCO_{2eq}/MJ)	Default greenhouse gas emissions(gCO_{2eq}/MJ)
Sugar beet ethanol	19	26
Wheat ethanol (process fuel not specified)	32	45
Wheat ethanol (lignite as process fuel in CHP plant)	32	45
Wheat ethanol (natural gas as process fuel in conventional boiler)	21	30
Wheat ethanol (natural gas as process fuel in CHP plant)	14	19
Wheat ethanol (straw as process fuel in CHP plant)	1	1
Corn (maize) ethanol, Community produced (natural gas as process fuel in CHP plant)	15	21
Sugar cane ethanol	1	1

The part from renewable sources of ETBE	Equal to that of the ethanol production pathway used	
The part from renewable sources of TAEE	Equal to that of the ethanol production pathway used	
Rape seed biodiesel	16	22
Sunflower biodiesel	16	22
Soybean biodiesel	18	26
Palm oil biodiesel (process not specified)	35	49
Palm oil biodiesel (process with methane capture at oil mill)	13	18
Waste vegetable or animal oil biodiesel	9	13
Hydrotreated vegetable oil from rape seed	10	13
Hydrotreated vegetable oil from sunflower	10	13
Hydrotreated vegetable oil from palm oil (process not specified)	30	42
Hydrotreated vegetable oil from palm oil (process with methane capture at oil mill)	7	9
Pure vegetable oil from rape seed	4	5
Biogas from municipal organic waste as compressed natural gas	14	20
Biogas from wet manure as compressed natural gas	8	11
Biogas from dry manure as compressed natural gas	8	11

Disaggregated default values for transport and distribution: 'e_{td}' as defined in Part C of this Annex

Biofuel production pathway	**Typical greenhouse gas emissions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Sugar beet ethanol	2	2
Wheat ethanol	2	2

Corn (maize) ethanol, Community produced	2	2
Sugar cane ethanol	9	9
The part from renewable sources of ETBE	Equal to that of the ethanol production pathway used	
The part from renewable sources of TAEE	Equal to that of the ethanol production pathway used	
Rape seed biodiesel	1	1
Sunflower biodiesel	1	1
Soybean biodiesel	13	13
Palm oil biodiesel	5	5
Waste vegetable or animal oil biodiesel	1	1
Hydrotreated vegetable oil from rape seed	1	1
Hydrotreated vegetable oil from sunflower	1	1
Hydrotreated vegetable oil from palm oil	5	5
Pure vegetable oil from rape seed	1	1
Biogas from municipal organic waste as compressed natural gas	3	3
Biogas from wet manure as compressed natural gas	5	5
Biogas from dry manure as compressed natural gas	4	4

Total for cultivation, processing, transport and distribution

Biofuel production pathway	**Typical greenhouse gas emissions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Sugar beet ethanol	33	40
Wheat ethanol (process fuel not specified)	57	70
Wheat ethanol (lignite as process fuel in CHP plant)	57	70
Wheat ethanol (natural gas as process fuel in conventional boiler)	46	55

Wheat ethanol (natural gas as process fuel in CHP plant)	39	44
Wheat ethanol (straw as process fuel in CHP plant)	26	26
Corn (maize) ethanol, Community produced (natural gas as process fuel in CHP plant)	37	43
Sugar cane ethanol	24	24
The part from renewable sources of ETBE	Equal to that of the ethanol production pathway used	
The part from renewable sources of TAEE	Equal to that of the ethanol production pathway used	
Rape seed biodiesel	46	52
Sunflower biodiesel	35	41
Soybean biodiesel	50	58
Palm oil biodiesel (process not specified)	54	68
Palm oil biodiesel (process with methane capture at oil mill)	32	37
Waste vegetable or animal oil biodiesel	10	14
Hydrotreated vegetable oil from rape seed	41	44
Hydrotreated vegetable oil from sunflower	29	32
Hydrotreated vegetable oil from palm oil (process not specified)	50	62
Hydrotreated vegetable oil from palm oil (process with methane capture at oil mill)	27	29
Pure vegetable oil from rape seed	35	36
Biogas from municipal organic waste as compressed natural gas	17	23
Biogas from wet manure as compressed natural gas	13	16
Biogas from dry manure as compressed natural gas	12	15

E. Estimated disaggregated default values for future biofuels that were not on the market or were only on the market in negligible quantities in January 2008

Disaggregated values for cultivation: 'e_{ec}' as defined in Part C of this Annex

Biofuel production pathway	**Typical greenhouse gas missions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Wheat straw ethanol	3	3
Waste wood ethanol	1	1
Farmed wood ethanol	6	6
Waste wood Fischer-Tropsch diesel	1	1
Farmed wood Fischer-Tropsch diesel	4	4
Waste wood DME	1	1
Farmed wood DME	5	5
Waste wood methanol	1	1
Farmed wood methanol	5	5
The part from renewable sources of MTBE	Equal to that of the methanol production pathway used	

Disaggregated values for processing (including excess electricity): '$e_p - e_{ee}$' as defined in Part C of this Annex

Biofuel production pathway	**Typical greenhouse gas emissions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Wheat straw ethanol	5	7
Wood ethanol	12	17
Wood Fischer-Tropsch diesel	0	0
Wood DME	0	0
Wood methanol	0	0
The part from renewable sources of MTBE	Equal to that of the methanol production pathway used	

Disaggregated values for transport and distribution: 'e_{td}' as defined in Part C of this Annex

Biofuel production pathway	**Typical greenhouse gas emissions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Wheat straw ethanol	2	2
Waste wood ethanol	4	4
Farmed wood ethanol	2	2

Waste wood Fischer-Tropsch diesel	3	3
Farmed wood Fischer-Tropsch diesel	2	2
Waste wood DME	4	4
Farmed wood DME	2	2
Waste wood methanol	4	4
Farmed wood methanol	2	2
The part from renewable sources of MTBE	Equal to that of the methanol production pathway used	

Total for cultivation, processing, transport and distribution

Biofuel production pathway	**Typical greenhouse gas emissions(gCO_{2eq}/MJ)**	**Default greenhouse gas emissions(gCO_{2eq}/MJ)**
Wheat straw ethanol	11	13
Waste wood ethanol	17	22
Farmed wood ethanol	20	25
Waste wood Fischer-Tropsch diesel	4	4
Farmed wood Fischer-Tropsch diesel	6	6
Waste wood DME	5	5
Farmed wood DME	7	7
Waste wood methanol	5	5
Farmed wood methanol	7	7
The part from renewable sources of MTBE	Equal to that of the methanol production pathway used	

(**1**) The quotient obtained by dividing the molecular weight of CO_2 (44,010 g/mol) by the molecular weight of carbon (12,011 g/mol) is equal to 3,664.