

## Amendments

### The Copenhagen Amendment (1992): The amendment to the Montreal Protocol agreed by the Fourth Meeting of the Parties (Copenhagen, 23–25 November 1992)

#### ARTICLE 1: AMENDMENT

##### A. Article 1, paragraph 4

In paragraph 4 of Article 1 of the Protocol, for the words:

or in Annex B

there shall be substituted:

, Annex B, Annex C or Annex E

##### B. Article 1, paragraph 9

Paragraph 9 of Article 1 of the Protocol shall be deleted.

##### C. Article 2, paragraph 5

In paragraph 5 of Article 2 of the Protocol, after the words:

Articles 2A to 2E

there shall be added:

and Article 2H

##### D. Article 2, paragraph 5 bis

The following paragraph shall be inserted after paragraph 5 of Article 2 of the Protocol:

*5 bis.* Any Party not operating under paragraph 1 of Article 5 may, for one or more control periods, transfer to another such Party any portion of its calculated level of consumption set out in Article 2F, provided that the calculated level of consumption of controlled substances in Group I of Annex A of the Party transferring the portion of its calculated level of consumption did not exceed 0.25 kilograms per capita in 1989 and that the total combined calculated levels of consumption of the Parties concerned do not exceed the consumption limits set out in Article 2F. Such transfer of consumption shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.

##### E. Article 2, paragraphs 8 (a) and 11

In paragraphs 8 (a) and 11 of Article 2 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted each time they occur:

Articles 2A to 2H

##### F. Article 2, paragraph 9(a)(i)

In paragraph 9(a)(i) of Article 2 of the Protocol, for the words:

and/or Annex B

there shall be substituted:

, Annex B, Annex C and/or Annex E

##### G. Article 2F: Hydrochlorofluorocarbons

The following Article shall be inserted after Article 2E of the Protocol:

##### Article 2F: Hydrochlorofluorocarbons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, the sum of:

(a) Three point one per cent of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex A; and

(b) Its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the sum referred to in paragraph 1 of this Article.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, thirty-five per cent of the sum referred to in paragraph 1 of this Article.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ten per cent of the sum referred to in paragraph 1 of this Article.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of

Annex C does not exceed, annually, zero point five per cent of the sum referred to in paragraph 1 of this Article.

6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2030, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero.

7. As of 1 January 1996, each Party shall endeavour to ensure that:

(a) The use of controlled substances in Group I of Annex C is limited to those applications where other more environmentally suitable alternative substances or technologies are not available;

(b) The use of controlled substances in Group I of Annex C is not outside the areas of application currently met by controlled substances in Annexes A, B and C, except in rare cases for the protection of human life or human health; and

(c) Controlled substances in Group I of Annex C are selected for use in a manner that minimizes ozone depletion, in addition to meeting other environmental, safety and economic considerations.

*H. Article 2G: Hydrobromofluorocarbons*

The following Article shall be inserted after Article 2F of the Protocol:

*Article 2G: Hydrobromofluorocarbons*

Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex C does not exceed zero. Each Party producing the substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

*I. Article 2H: Methyl Bromide*

The following Article shall be inserted after Article 2G of the Protocol:

*Article 2H: Methyl Bromide*

Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991. The calculated levels of consumption and production under this Article shall not include the amounts used by the Party for quarantine and pre-shipment applications.

*J. Article 3*

In Article 3 of the Protocol, for the words:

2A to 2E

there shall be substituted:

2A to 2H

and for the words

or Annex B

there shall be substituted each time they occur:

, Annex B, Annex C or Annex E

*K. Article 4, paragraph 1 ter*

The following paragraph shall be inserted after paragraph 1 *bis* of Article 4 of the Protocol:

*1 ter.* Within one year of the date of entry into force of this paragraph, each Party shall ban the import of any controlled substances in Group II of Annex C from any State not party to this Protocol.

*L. Article 4, paragraph 2 ter*

The following paragraph shall be inserted after paragraph 2 *bis* of Article 4 of the Protocol:

*2 ter.* Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Group II of Annex C to any State not party to this Protocol.

*M. Article 4, paragraph 3 ter*

The following paragraph shall be inserted after paragraph 3 *bis* of Article 4 of the Protocol:

*3 ter.* Within three years of the date of entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Group II of Annex C. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

*N. Article 4, paragraph 4 ter*

The following paragraph shall be inserted after paragraph 4 *bis* of Article 4 of the Protocol:

*4 ter.* Within five years of the date of entry into force of this paragraph, the Parties shall determine feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Group II of Annex C. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

*O. Article 4, paragraphs 5, 6 and 7*

In paragraphs 5, 6 and 7 of Article 4 of the Protocol, for the words:

controlled substances

there shall be substituted:

controlled substances in Annexes A and B and Group II of Annex C

*P. Article 4, paragraph 8*

In paragraph 8 of Article 4 of the Protocol, for the words:

referred to in paragraphs 1, 1 *bis*, 3, 3 *bis*, 4 and 4 *bis* and exports referred to in paragraphs 2 and 2 *bis*

there shall be substituted:

and exports referred to in paragraphs 1 to 4 *ter* of this Article

and after the words:

Articles 2A to 2E

there shall be added:

, Article 2G

*Q. Article 4, paragraph 10*

The following paragraph shall be inserted after paragraph 9 of Article 4 of the Protocol:

10. By 1 January 1996, the Parties shall consider whether to amend this Protocol in order to extend the measures in this Article to trade in controlled substances in Group I of Annex C and in Annex E with States not party to the Protocol.

*R. Article 5, paragraph 1*

The following words shall be added at the end of paragraph 1 of Article 5 of the Protocol:

, provided that any further amendments to the adjustments or Amendments adopted at the Second Meeting of the Parties in London, 29 June 1990, shall apply to the Parties operating under this paragraph after the review provided for in paragraph 8 of this Article has taken place and shall be based on the conclusions of that review.

*S. Article 5, paragraph 1 bis*

The following paragraph shall be added after paragraph 1 of Article 5 of the Protocol:

1 *bis*. The Parties shall, taking into account the review referred to in paragraph 8 of this Article, the assessments made pursuant to Article 6 and any other relevant information, decide by 1 January 1996, through the procedure set forth in paragraph 9 of Article 2:

(a) With respect to paragraphs 1 to 6 of Article 2F, what base year, initial levels, control schedules and phase-out date for consumption of the controlled substances in Group I of Annex C will apply to Parties operating under paragraph 1 of this Article;

(b) With respect to Article 2G, what phase-out date for production and consumption of the controlled substances in Group II of Annex C will apply to Parties operating under paragraph 1 of this Article; and

(c) With respect to Article 2H, what base year, initial levels and control schedules for consumption and production of the controlled substance in Annex E will apply to Parties operating under paragraph 1 of this Article.

*T. Article 5, paragraph 4*

In paragraph 4 of Article 5 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2H

*U. Article 5, paragraph 5*

In paragraph 5 of Article 5 of the Protocol, after the words:

set out in Articles 2A to 2E

there shall be added:

, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article,

*V. Article 5, paragraph 6*

In paragraph 6 of Article 5 of the Protocol, after the words:

obligations laid down in Articles 2A to 2E

there shall be added:

, or any or all obligations in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article,

*W. Article 6*

The following words shall be deleted from Article 6 of the Protocol:

Articles 2A to 2E, and the situation regarding production, imports and exports of the transitional substances in Group I of Annex C

and replaced by

Articles 2A to 2H

*X. Article 7 paragraphs 2 and 3*

Article 7, paragraph 2 and 3

Paragraphs 2 and 3 of Article 7 of the Protocol shall be replaced by the following:

2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the controlled substances

- in Annexes B and C, for the year 1989;

- in Annex E, for the year 1991,

or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C and E respectively enter into force for that Party.

3. Each Party shall provide to the Secretariat statistical data on its annual production (as defined in paragraph 5 of Article 1) of each of the controlled substances listed in Annexes A, B, C and E and, separately, for each substance,

- Amounts used for feedstocks,

- Amounts destroyed by technologies approved by the Parties, and

- Imports from and exports to Parties and non-Parties respectively,

for the year during which provisions concerning the substances in Annexes A, B, C and E respectively entered into force for that Party and for each year thereafter. Data shall be forwarded not later than nine months after the end of the year to which the data relate.

Y. Article 7, paragraph 3 bis

The following paragraph shall be inserted after paragraph 3 of Article 7 of the Protocol:

3 bis. Each Party shall provide to the Secretariat separate statistical data of its annual imports and exports of each of the controlled substances listed in Group II of Annex A and Group I of Annex C that have been recycled.

Z. Article 7, paragraph 4

In paragraph 4 of Article 7 of the Protocol, for the words:

in paragraphs 1, 2 and 3

there shall be substituted:

in paragraphs 1, 2, 3 and 3 bis

AA. Article 9, paragraph 1 (a)

The following words shall be deleted from paragraph 1 (a) of Article 9 of the Protocol:

and transitional

BB. Article 10, paragraph 1

In paragraph 1 of Article 10 of the Protocol, after the words:

Articles 2A to 2E

there shall be added:

, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of Article 5.

CC. Article 11, paragraph 4 (g)

The following words shall be deleted from paragraph 4 (g) of Article II of the Protocol:

and the situation regarding transitional substances

DD. Article 17

In Article 17 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2H

EE. Annexes

1. Annex C

The following annex shall replace Annex C of the Protocol:

Annex C: Controlled substances

Group	Substance	Number of isomers	Ozone-Depleting Potential*
Group I			
CHFC1 <sub>2</sub>	(HCFC-21)**	1	0.04
CHF <sub>2</sub> Cl	(HCFC-22)**	1	0.055
CH <sub>2</sub> FCl	(HCFC-31)	1	0.02
C <sub>2</sub> HFCl <sub>4</sub>	(HCFC-121)	2	0.01-0.04
C <sub>2</sub> HF <sub>2</sub> Cl <sub>3</sub>	(HCFC-122)	3	0.02-0.08
C <sub>2</sub> HF <sub>3</sub> Cl <sub>2</sub>	(HCFC-123)	3	0.02-0.06
CHCl <sub>2</sub> CF <sub>3</sub>	(HCFC-123)**	-	0.02
C <sub>2</sub> HF <sub>4</sub> Cl	(HCFC-124)	2	0.02-0.04

CHFClCF <sub>3</sub>	(HCFC-124)**	-	0.022
C <sub>2</sub> H <sub>2</sub> FCl <sub>3</sub>	(HCFC-131)	3	0.007-0.05
C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Cl <sub>2</sub>	(HCFC-132)	4	0.008-0.05
C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Cl	(HCFC-133)	3	0.02-0.06
C <sub>2</sub> H <sub>3</sub> FCl <sub>2</sub>	(HCFC-141)	3	0.005-0.07
CH <sub>3</sub> CFCl <sub>2</sub>	(HCFC-141b)**	-	0.11
C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Cl	(HCFC-142)	3	0.008-0.07
CH <sub>3</sub> CF <sub>2</sub> Cl	(HCFC-142b)**	-	0.065
C <sub>2</sub> H <sub>4</sub> FCI	(HCFC-151)	2	0.003-0.005
C <sub>3</sub> HFCl <sub>6</sub>	(HCFC-221)	5	0.015-0.07
C <sub>3</sub> HF <sub>2</sub> Cl <sub>5</sub>	(HCFC-222)	9	0.01-0.09
C <sub>3</sub> HF <sub>3</sub> Cl <sub>4</sub>	(HCFC-223)	12	0.01-0.08
C <sub>3</sub> HF <sub>4</sub> Cl <sub>3</sub>	(HCFC-224)	12	0.01-0.09
C <sub>3</sub> HF <sub>5</sub> Cl <sub>2</sub>	(HCFC-225)	9	0.02-0.07
CF <sub>3</sub> CF <sub>2</sub> CHCl <sub>2</sub>	(HCFC-225ca)**	-	0.025
CF <sub>2</sub> ClCF <sub>2</sub> CHClF	(HCFC-225cb)**	-	0.033
C <sub>3</sub> HF <sub>6</sub> Cl	(HCFC-226)	5	0.02-0.10
C <sub>3</sub> H <sub>2</sub> FCl <sub>5</sub>	(HCFC-231)	9	0.05-0.09
C <sub>3</sub> H <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub>	(HCFC-232)	16	0.008-0.10
C <sub>3</sub> H <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub>	(HCFC-233)	18	0.007-0.23
C <sub>3</sub> H <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub>	(HCFC-234)	16	0.01-0.28
C <sub>3</sub> H <sub>2</sub> F <sub>5</sub> Cl	(HCFC-235)	9	0.03-0.52
C <sub>3</sub> H <sub>3</sub> FCl <sub>4</sub>	(HCFC-241)	12	0.004-0.09
C <sub>3</sub> H <sub>3</sub> F <sub>2</sub> Cl <sub>3</sub>	(HCFC-242)	18	0.005-0.13
C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> Cl <sub>2</sub>	(HCFC-243)	18	0.007-0.12
C <sub>3</sub> H <sub>3</sub> F <sub>4</sub> Cl	(HCFC-244)	12	0.009-0.14
C <sub>3</sub> H <sub>4</sub> FCl <sub>3</sub>	(HCFC-251)	12	0.001-0.01
C <sub>3</sub> H <sub>4</sub> F <sub>2</sub> Cl <sub>2</sub>	(HCFC-252)	16	0.005-0.04
C <sub>3</sub> H <sub>4</sub> F <sub>3</sub> Cl	(HCFC-253)	12	0.003-0.03
C <sub>3</sub> H <sub>5</sub> FCl <sub>2</sub>	(HCFC-261)	9	0.002-0.02
C <sub>3</sub> H <sub>5</sub> F <sub>2</sub> Cl	(HCFC-262)	9	0.002-0.02
C <sub>3</sub> H <sub>6</sub> FCI	(HCFC-271)	5	0.001-0.03
<i>Group II</i>			
CHBr <sub>2</sub>		1	1.00
CHF <sub>2</sub> Br	(HBFC-22B1)	1	0.74
CH <sub>2</sub> FBr		1	0.73
C <sub>2</sub> HFBr <sub>4</sub>		2	0.3-0.8
C <sub>2</sub> HF <sub>2</sub> Br <sub>3</sub>		3	0.5-1.8
C <sub>2</sub> HF <sub>3</sub> Br <sub>2</sub>		3	0.4-1.6
C <sub>2</sub> HF <sub>4</sub> Br		2	0.7-1.2
C <sub>2</sub> H <sub>2</sub> FBr <sub>3</sub>		3	0.1-1.1
C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>2</sub>		4	0.2-1.5
C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Br		3	0.7-1.6
C <sub>2</sub> H <sub>3</sub> FBr <sub>2</sub>		3	0.1-1.7
C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Br		3	0.2-1.1
C <sub>2</sub> H <sub>4</sub> FBr		2	0.07-0.1
C <sub>3</sub> HFBr <sub>6</sub>		5	0.3-1.5
C <sub>3</sub> HF <sub>2</sub> Br <sub>5</sub>		9	0.2-1.9
C <sub>3</sub> HF <sub>3</sub> Br <sub>4</sub>		12	0.3-1.8
C <sub>3</sub> HF <sub>4</sub> Br <sub>3</sub>		12	0.5-2.2
C <sub>3</sub> HF <sub>5</sub> Br <sub>2</sub>		9	0.9-2.0
C <sub>3</sub> HF <sub>6</sub> Br		5	0.7-3.3
C <sub>3</sub> H <sub>2</sub> FBr <sub>5</sub>		9	0.1-1.9
C <sub>3</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>4</sub>		16	0.2-2.1
C <sub>3</sub> H <sub>2</sub> F <sub>3</sub> Br <sub>3</sub>		18	0.2-5.6
C <sub>3</sub> H <sub>2</sub> F <sub>4</sub> Br <sub>2</sub>		16	0.3-7.5
C <sub>3</sub> H <sub>2</sub> F <sub>5</sub> Br		8	0.9-1.4
C <sub>3</sub> H <sub>3</sub> FBr <sub>4</sub>		12	0.08-1.9

Chemical Formula	ODP	Group
C <sub>3</sub> H <sub>3</sub> F <sub>2</sub> Br <sub>3</sub>	18	0.1-3.1
C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> Br <sub>2</sub>	18	0.1-2.5
C <sub>3</sub> H <sub>3</sub> F <sub>4</sub> Br	12	0.3-4.4
C <sub>3</sub> H <sub>4</sub> FBr <sub>3</sub>	12	0.03-0.3
C <sub>3</sub> H <sub>4</sub> F <sub>2</sub> Br <sub>2</sub>	16	0.1-1.0
C <sub>3</sub> H <sub>4</sub> F <sub>3</sub> Br	12	0.07-0.8
C <sub>3</sub> H <sub>5</sub> FBr <sub>2</sub>	9	0.04-0.4
C <sub>3</sub> H <sub>5</sub> F <sub>2</sub> Br	9	0.07-0.8
C <sub>3</sub> H <sub>6</sub> FBr	5	0.02-0.7

\* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

\*\* Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.

## 2. Annex E

The following annex shall be added to the Protocol:

### Annex E: Controlled substances

Group	Substance	Ozone-Depleting Potential
Group I		
CH <sub>3</sub> Br	methyl bromide	0.7

## ARTICLE 2: RELATIONSHIP TO THE 1990 AMENDMENT

No State or regional economic integration organization may deposit an instrument of ratification, acceptance, approval or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Second Meeting of the Parties in London, 29 June 1990.

## ARTICLE 3: ENTRY INTO FORCE

1. This Amendment shall enter into force on 1 January 1994, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Amendment, as provided under paragraph 1, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.