of 29 June 2000
on substances that deplete the ozone layer

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the Economic and Social Committee (2),

After consulting the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty (3), in the light of the joint text approved on 5 May 2000 by the Conciliation Committee,

Whereas:

(1) It is established that continued emissions of ozone-depleting substances at current levels continue to cause significant damage to the ozone layer. Ozone depletion in the southern hemisphere reached unprecedented levels in 1998. In three out of four recent springs severe ozone depletion has occurred in the Arctic region. Increased UV-B radiation resulting from ozone depletion poses a significant threat to health and environment. Further efficient measures need therefore to be taken in order to protect human health and the environment against adverse effects resulting from such emissions.

(2) In view of its responsibilities for the environment and trade, the Community, pursuant to Decision 88/540/EEC (4), has become a Party to the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, as amended by the Parties to the Protocol at their second meeting in 1995 and at their fourth meeting in Copenhagen.

Additional measures for the protection of the ozone layer were adopted by the Parties to the Montreal Protocol at their seventh meeting in Vienna in December 1995 and at their ninth meeting in Montreal in September 1997, in which the Community participated.

(4) It is necessary for action to be taken at Community level to carry out the Community's obligations under the Vienna Convention and the latest amendments and adjustments to the Montreal Protocol, in particular to phase out the production and the placing on the market of methyl bromide within the Community and to provide for a system for the licensing not only of imports but also of exports of ozone-depleting substances.

(5) In view of the earlier than anticipated availability of technologies for replacing ozone-depleting substances, it is appropriate in certain cases to provide for control measures which are stricter than those provided for in Council Regulation (EC) No 3093/94 of 15 December 1994 on substances that deplete the ozone layer (5) and stricter than those of the Montreal Protocol.

(6) Regulation (EC) No 3093/94 must be modified substantially. It is in the interest of legal clarity and transparency to revise that Regulation completely.

(7) Under Regulation (EC) No 3093/94 the production of chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane and hydrobromofluorocarbons has been phased out. The production of those controlled substances is thus prohibited, subject to possible derogation for essential uses and to meet the basic domestic needs of Parties pursuant to Article 5 of the Montreal Protocol. It is now also appropriate progressively to prohibit the placing on the market and use of those substances and of products and equipment containing those substances.

Even after the phase-out of controlled substances the Commission may under certain conditions grant exemptions for essential uses.

(2) OJ C 309, 15.2.1999, p. 34.


The growing availability of alternatives to methyl bromide should be reflected in more substantial reductions in its production and consumption compared to the Montreal Protocol. The production and consumption of methyl bromide should cease completely subject to possible derogations for critical uses determined at Community level following the criteria established under the Montreal Protocol. Also the use of methyl bromide for quarantine and preshipment applications should be controlled. Such use should not exceed current levels and ultimately be reduced in the light of technical development and developments under the Montreal Protocol.

Regulation (EC) No 3093/94 provides for controls on the production of all other ozone-depleting substances but not for controls on the production of hydrochlorofluorocarbons. It is appropriate to introduce such provisions to ensure that hydrochlorofluorocarbons do not continue to be used where non-ozone-depleting alternatives exist. Measures for the control of the production of hydrochlorofluorocarbons should be taken by all Parties to the Montreal Protocol. A freeze on production of hydrochlorofluorocarbons would reflect that need and the Community's determination to take a leading role in this respect. The quantities produced should be adapted to the reductions envisaged for the placing on the Community market of hydrochlorofluorocarbons and to the declining demand worldwide as a consequence of reductions in the consumption of hydrochlorofluorocarbons required by the Protocol.

The Montreal Protocol, in Article 2F(7), requires the Parties to endeavour to ensure that the use of hydrochlorofluorocarbons is limited to those applications where other more environmentally suitable alternative substances or technologies are not available. In view of the availability of alternative and substitute technologies, the placing on the market and use of hydrochlorofluorocarbons and products containing hydrochlorofluorocarbons can be further limited. Decision VI/13 of the Meeting of the Parties to the Montreal Protocol provides that the evaluation of alternatives to hydrochlorofluorocarbons should take into account such factors as ozone-depleting potential, energy efficiency, potential flammability, toxicity and global warming and the potential impacts on the effective use and phase-out of chlorofluorocarbons and halons. Hydrochlorofluorocarbon controls under the Montreal Protocol should be considerably tightened to protect the ozone layer and to reflect the availability of alternatives.

Quotas for the release for free circulation in the Community of controlled substances should be allocated only for limited uses of controlled substances. Controlled substances and products containing controlled substances from States not party to the Montreal Protocol should not be imported.

The licensing system for controlled substances should be extended to include the authorisation of exports of controlled substances, in order to monitor trade in ozone-depleting substances and to allow for exchange of information between Parties.

Provision should be made for the recovery of used controlled substances, and to prevent leakages of controlled substances.

The Montreal Protocol requires reporting on trade in ozone-depleting substances. Annual reporting should therefore be required from producers, importers and exporters of controlled substances.

The measures necessary for the implementation of this Regulation should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (1).

Decision X/8 of the 10th meeting of the Parties to the Montreal Protocol encourages Parties to take measures actively, as appropriate, to discourage the production and marketing of new ozone-depleting substances and in particular of bromochloromethane. To this end a mechanism should be established to provide for new substances to be addressed by this Regulation. The production, importation, placing on the market and use of bromochloromethane should be prohibited.

The switch to new technologies or alternative products, required because the production and use of controlled substances are to be phased out, could lead to problems for small and medium-sized enterprises (SMEs) in particular. The Member States should therefore consider providing appropriate forms of assistance specifically to enable SMEs to make the necessary changes.

HAVE ADOPTED THIS REGULATION:

CHAPTER I

INTRODUCTORY PROVISIONS

Article 1

Scope

This Regulation shall apply to the production, importation, exportation, placing on the market, use, recovery, recycling and reclamation and destruction of chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons, to the reporting of information on these substances and to the importation, exportation, placing on the market and use of products and equipment containing those substances.

This Regulation shall also apply to the production, importation, placing on the market and use of substances in Annex II.

Article 2

Definitions

For the purposes of this Regulation:

— ‘Protocol’ means the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, as last amended and adjusted,

— ‘Party’ means any party to the Protocol,

— ‘State not party to the Protocol’, with respect to a particular controlled substance, includes any State or regional economic integration organisation that has not agreed to be bound by the provisions of the Protocol applicable to that substance,

— ‘controlled substances’ means chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons, whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed. This definition shall not cover any controlled substance which is in a manufactured product other than a container used for the transportation or storage of that substance, or insignificant quantities of any controlled substance, originating from inadvertent or coincidental production during a manufacturing process, from unreacted feedstock, or from use as a processing agent which is present in chemical substances as trace impurities, or that is emitted during product manufacture or handling,

— ‘chlorofluorocarbons’ (CFCs) means the controlled substances listed in Group I of Annex I, including their isomers,

— ‘other fully halogenated chlorofluorocarbons’ means the controlled substances listed in Group II of Annex I, including their isomers,

— ‘halons’ means the controlled substances listed in Group III of Annex I, including their isomers,

— ‘carbon tetrachloride’ means the controlled substance specified in Group IV of Annex I,

— ‘1,1,1-trichloroethane’ means the controlled substance specified in Group V of Annex I,

— ‘methyl bromide’ means the controlled substance specified in Group VI of Annex I,

— ‘hydrobromofluorocarbons’ means the controlled substances listed in Group VII of Annex I, including their isomers,

— ‘hydrochlorofluorocarbons’ (HCFCs) means the controlled substances listed in Group VIII of Annex I, including their isomers,

— ‘new substances’ means substances listed in Annex II. This definition shall cover substances whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed. This definition shall not cover any substance which is in a manufactured product other than a container used for transportation or storage of that substance, or insignificant quantities of any new substance, originating from inadvertent or coincidental production during a manufacturing process or from unreacted feedstock,

— ‘feedstock’ means any controlled substance or new substance that undergoes chemical transformation in a process in which it is entirely converted from its original composition and whose emissions are insignificant,

— ‘processing agent’ means controlled substances used as chemical processing agents in those applications listed in Annex VI, in installations existing at 1 September 1997, and where emissions are insignificant. The Commission shall, in the light of those criteria and in accordance with the procedure referred to in Article 18(2), establish a list of undertakings in which the use of controlled substances as processing agents shall be permitted, laying down maximum emission levels for each of the undertakings concerned. It may, in accordance with the procedure referred to in Article 18(2), amend Annex VI as well as the list of undertakings referred to above in the light of new information or technical developments, including the review provided for in Decision X/14 of the Meeting of the Parties to the Protocol,

— ‘producer’ means any natural or legal person manufacturing controlled substances within the Community,

— ‘production’ means the amount of controlled substances produced, less the amount destroyed by technologies approved by the Parties and less the amount entirely used as feedstock or as a processing agent in the manufacture of other chemicals. No amount recovered, recycled or reclaimed shall be considered as ‘production’,

— ‘ozone-depleting potential’ means the figure specified in the third column of Annex I representing the potential effect of each controlled substance on the ozone layer,

— ‘calculated level’ means a quantity determined by multiplying the quantity of each controlled substance by its ozone-depleting potential and by adding together, for each group of controlled substances in Annex I separately, the resulting figures,

— ‘industrial rationalisation’ means the transfer either between Parties or within a Member State of all or a portion of the calculated level of production of one producer to another, for the purpose of optimising economic efficiency or responding to anticipated shortfalls in supply as a result of plant closures,

— ‘placing on the market’ means the supplying or making available to third persons, against payment or free of charge, of controlled substances or products containing controlled substances covered by this Regulation,

— ‘use’ means the utilisation of controlled substances in the production or maintenance, in particular refilling, of products or equipment or in other processes except for feedstock and processing agent uses,

— ‘reversible air-conditioning/heat pump system’ means a combination of interconnected refrigerant-containing parts constituting one closed refrigeration circuit, in which the refrigerant is circulated for the purpose of extracting and rejecting heat (i.e. cooling, heating), processes which are reversible in that the evaporators and condensers are designed to be interchangeable in their functions,
— ‘inward processing’ means a procedure provided for in Article 114(1)(a) of Council Regulation (EEC) No 2913/92 of 12 October 1992 establishing the Community Customs Code (1),
— ‘recovery’ means the collection and the storage of controlled substances from, for example, machinery, equipment and containment vessels during servicing or before disposal,
— ‘recycling’ means the reuse of a recovered controlled substance following a basic cleaning process such as filtering and drying. For refrigerants, recycling normally involves recharge back into equipment as is often carried out on site,
— ‘reclamation’ means the reprocessing and upgrading of a recovered controlled substance through such processes as filtering, drying, distillation and chemical treatment in order to restore the substance to a specified standard of performance, which often involves processing off site at a central facility,
— ‘undertaking’ means any natural or legal person who produces, recycles for placing on the market or uses controlled substances for industrial or commercial purposes in the Community, who releases such imported substances for free circulation in the Community, or who exports such substances from the Community for industrial or commercial purposes.

CHAPTER II

PHASE-OUT SCHEDULE

Article 3

Control of production of controlled substances

1. Subject to paragraphs 5 to 10, the production of the following shall be prohibited:

(a) chlorofluorocarbons;
(b) other fully halogenated chlorofluorocarbons;
(c) halons;
(d) carbon tetrachloride;
(e) 1,1,1-trichloroethane;
(f) hydrobromofluorocarbons.

In the light of the proposals made by Member States, the Commission shall, in accordance with the procedure referred to in Article 18(2), apply the criteria set out in Decision IV/25 of the Parties in order to determine every year any essential uses for which the production and importation of controlled substances referred to in the first subparagraph may be permitted in the Community and those users who may take advantage of those essential uses. Such production and importation shall be allowed only if no adequate alternatives or recycled or reclaimed controlled substances referred to in the first subparagraph are available from any of the Parties.

2. (i) Subject to paragraphs 5 to 10, each producer shall ensure that:

(a) the calculated level of its production of methyl bromide in the period 1 January to 31 December 1999 and in each 12-month period thereafter does not exceed 75% of the calculated level of its production of methyl bromide in 1991;

(b) the calculated level of its production of methyl bromide in the period 1 January to 31 December 2001 and in each 12-month period thereafter does not exceed 40% of the calculated level of its production of methyl bromide in 1991;

(c) the calculated level of its production of methyl bromide in the period 1 January to 31 December 2003 and in each 12-month period thereafter does not exceed 25% of the calculated level of its production of methyl bromide in 1991;

(d) it produces no methyl bromide after 31 December 2004.

The calculated levels referred to in subparagraphs (a), (b), (c) and (d) shall not include the amount of methyl bromide produced for quarantine and preshipment applications.

(ii) In the light of the proposals made by Member States, the Commission shall, in accordance with the procedure referred to in Article 18(2), apply the criteria set out in Decision IX/6 of the Parties, together with any other relevant criteria agreed by the Parties, in order to determine every year any critical uses for which the production, importation and use of methyl bromide may be permitted in the Community after 31 December 2004, the quantities and uses to be permitted and those users whom may take advantage of the critical exemption. Such production and importation shall be allowed only if no adequate alternatives or recycled or reclaimed methyl bromide is available from any of the Parties.

In an emergency, where unexpected outbreaks of particular pests or diseases so require, the Commission, at the request of the competent authority of a Member State, may authorise the temporary use of methyl bromide. Such authorisation shall apply for a period not exceeding 120 days and to a quantity not exceeding 20 tonnes.

3. Subject to paragraphs 8, 9 and 10, each producer shall ensure that:

(a) the calculated level of its production of hydrochlorofluorocarbons in the period 1 January 2000 to 31 December 2000 and in each 12-month period thereafter does not exceed the calculated level of its production of hydrochlorofluorocarbons in 1997;

(b) the calculated level of its production of hydrochlorofluorocarbons in the period 1 January 2008 to 31 December 2008 and in each 12-month period thereafter does not exceed 35% of the calculated level of its production of hydrochlorofluorocarbons in 1997;

c) the calculated level of its production of hydrochlorofluorocarbons in the period 1 January 2014 to 31 December 2014 and in each 12-month period thereafter does not exceed 20% of the calculated level of its production of hydrochlorofluorocarbons in 1997;

(d) the calculated level of its production of hydrochlorofluorocarbons in the period 1 January 2020 to 31 December 2020 and in each 12-month period thereafter does not exceed 15% of the calculated level of its production of hydrochlorofluorocarbons in 1997;

(e) it produces no hydrochlorofluorocarbons after 31 December 2025.

Before 31 December 2002, the Commission shall review the level of production of hydrochlorofluorocarbons with a view to determining:

— whether a production cut ahead of the year 2008 should be proposed, and/or

— whether a change to the levels of production provided for under (b), (c) and (d) should be proposed.

This review will take into account the development of hydrochlorofluorocarbon consumption worldwide, the hydrochlorofluorocarbon exports from the Community and other OECD countries and the technical and economic availability of alternative substances or technologies as well as relevant international developments under the Protocol.

4. The Commission shall issue licences to those users identified in accordance with the second subparagraph of paragraph 1 and paragraph 2(ii) and shall notify them of the use for which they have authorisation and the substances and quantities thereof that they are authorised to use.

5. A producer may be authorised by the competent authority of the Member State in which that producer's relevant production is situated to produce the controlled substances referred to in paragraphs 1 and 2 for the purpose of industrial rationalisation between Member States, provided that the combined calculated levels of production by the two producers do not exceed the sum of the calculated levels of production of their domestic producers as laid down in paragraphs 1 to 7 for the purpose of industrial rationalisation within the Member State concerned.

6. The competent authority of the Member State in which a producer's relevant production is situated may authorise that producer to combine the calculated levels of production laid down in paragraphs 1 to 9 with the calculated levels of production allowed to a producer in a third Party under the Protocol and that producer's national legislation for the purpose of industrial rationalisation with a third Party, provided that the combined calculated levels of production be reduced by the two producers do not exceed the sum of the calculated levels of production allowed to the Community producer under paragraphs 1 to 9 and the calculated levels of production allowed to the third Party producer under the Protocol and any relevant national legislation.

7. To the extent permitted by the Protocol, the competent authority of the Member State in which a producer's relevant production is situated may authorise that producer to exceed the calculated levels of production laid down in paragraphs 1 and 2 in order to satisfy any essential, or critical, uses of Parties at their request. The competent authority of the Member State concerned shall notify the Commission in advance of its intention to issue any such authorisation.

8. To the extent permitted by the Protocol, the competent authority of the Member State in which a producer's relevant production is situated may authorise that producer to exceed the calculated levels of production laid down in paragraphs 1 to 7 for the purpose of industrial rationalisation within the Member State concerned.

9. To the extent permitted by the Protocol, the Commission may, in agreement with the competent authority of the Member State in which a producer's relevant production is situated, authorise that producer to exceed the calculated levels of production laid down in paragraphs 1 to 8 for the purpose of industrial rationalisation between Member States.

10. To the extent permitted by the Protocol, the Commission may, in agreement with both the competent authority of the Member State in which a producer's relevant production is situated and the government of the third Party concerned, authorise a producer to combine the calculated levels of production laid down in paragraphs 1 to 9 with the calculated levels of production allowed to a producer in a third Party under the Protocol and that producer's national legislation for the purpose of industrial rationalisation with a third Party, provided that the combined calculated levels of production by the two producers do not exceed the sum of the calculated levels of production allowed to the Community producer under paragraphs 1 to 9 and the calculated levels of production allowed to the third Party producer under the Protocol and any relevant national legislation.

Article 4

Control of the placing on the market and use of controlled substances

1. Subject to paragraphs 4 and 5, the placing on the market and the use of the following controlled substances shall be prohibited:

(a) chlorofluorocarbons;

(b) other fully halogenated chlorofluorocarbons;

(c) halons;

(d) carbon tetrachloride;

(e) 1,1,1-trichloroethane; and

(f) hydrobromofluorocarbons.
The Commission may, following a request by a competent authority of a Member State and in accordance with the procedure referred to in Article 18(2), authorise a temporary exemption to allow the use of chlorofluorocarbons until 31 December 2004 in delivery mechanisms for hermetically sealed devices designed for implantation in the human body for delivery of measured doses of medication, and until 31 December 2008, in existing military applications, where it is demonstrated that, for a particular use, technically and economically feasible alternative substances or technologies are not available or cannot be used.

2. (i) Subject to paragraphs 4 and 5, each producer and importer shall ensure that:

(a) the calculated level of methyl bromide which it places on the market or uses for its own account in the period 1 January 1999 to 31 December 1999 and in each 12-month period thereafter does not exceed 75% of the calculated level of methyl bromide which it placed on the market or used for its own account in 1991;

(b) the calculated level of methyl bromide which it places on the market or uses for its own account in the period 1 January 2001 to 31 December 2001 and in each 12-month period thereafter does not exceed 40% of the calculated level of methyl bromide which it placed on the market or used for its own account in 1991;

(c) the calculated level of methyl bromide which it places on the market or uses for its own account in the period 1 January 2003 to 31 December 2003 and in each 12-month period thereafter does not exceed 25% of the calculated level of methyl bromide which it placed on the market or used for its own account in 1991;

(d) it does not place any methyl bromide on the market or use for its own account after 31 December 2004.

To the extent permitted by the Protocol, the Commission shall, following a request by a competent authority of a Member State and in accordance with the procedure referred to in Article 18(2), adjust the calculated level of methyl bromide referred to in Article 3(2) (i) (c) and subparagraph (c) where it is demonstrated that this is necessary to meet the needs of that Member State, because technically and economically feasible alternatives or substitutes that are acceptable from the standpoint of environment and health are not available or cannot be used.

The Commission, in consultation with Member States, shall encourage the development, including research, and the use of alternatives to methyl bromide as soon as possible.

(iii) Subject to paragraph 4, the placing on the market and the use of methyl bromide by undertakings other than producers and importers shall be prohibited after 31 December 2005.

(iii) The calculated levels referred to in subparagraphs (i) (a), (b), (c) and (d) and (ii) shall not include the amount of methyl bromide produced or imported for quarantine and preshipment applications. For the period 1 January 2001 to 31 December 2001 and for each 12-month period thereafter, each producer and importer shall ensure that the calculated level of methyl bromide which it places on the market or uses for its own account for quarantine and preshipment applications shall not exceed the average of the calculated level of methyl bromide which it placed on the market or used for its own account for quarantine and preshipment in the years 1996, 1997 and 1998.

Each year Member States shall report to the Commission the quantities of methyl bromide authorised for quarantine and preshipment used in their territory, the purposes for which methyl bromide was used, and the progress in evaluating and using alternatives.

The Commission shall, in accordance with the procedure referred to in Article 18(2), take measures to reduce the calculated level of methyl bromide which producers and importers may place on the market or use for their own account for quarantine and preshipment in the light of technical and economic availability of alternative substances or technologies and of the relevant international developments under the Protocol.

(iv) The total quantitative limits for the placing on the market or use for their own account by producers and importers of methyl bromide are set out in Annex III.

3. (i) Subject to paragraphs 4 and 5 and to Article 5(5):

(a) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 1999 to 31 December 1999 and in the 12-month period thereafter shall not exceed the sum of:

— 2,6% of the calculated level of chlorofluorocarbons which producers and importers placed on the market or used for their own account in 1989, and

— the calculated level of hydrochlorofluorocarbons which producers and importers placed on the market or used for their own account in 1989;

(b) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 2001 to 31 December 2001 shall not exceed the sum of:

— 2,0% of the calculated level of chlorofluorocarbons which producers and importers placed on the market or used for their own account in 1989, and
— the calculated level of hydrochlorofluorocarbons which producers and importers placed on the market or used for their own account in 1989;

(c) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 2002 to 31 December 2002 shall not exceed 85 % of the level calculated pursuant to subparagraph (b);

(d) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 2004 to 31 December 2004 and in each 12-month period thereafter shall not exceed 45 % of the level calculated pursuant to subparagraph (b);

(e) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 2008 to 31 December 2008 and in each 12-month period thereafter shall not exceed 25 % of the level calculated pursuant to subparagraph (b);

(f) the calculated level of hydrochlorofluorocarbons which producers and importers place on the market or use for their own account in the period 1 January 2003 to 31 December 2003 shall not exceed 25 % of the level calculated pursuant to subparagraph (b);

(g) producers and importers shall not place hydrochlorofluorocarbons on the market or use them for their own account after 31 December 2009;

(h) each producer and importer shall ensure that the calculated level of hydrochlorofluorocarbons which it places on the market or uses for its own account in the period 1 January 2001 to 31 December 2001 and in the 12-month period thereafter shall not exceed, as a percentage of the calculated levels set out in (a) to (c), its percentage market share in 1996.

(ii) Before 1 January 2001, the Commission shall, in accordance with the procedure referred to in Article 18(2), determine a mechanism for the allocation of quotas to each producer and importer of the calculated levels set out in (d) to (f), applicable for the period 1 January 2003 to 31 December 2003 and for each 12-month period thereafter.

(iii) In the case of producers, the quantities referred to in this paragraph shall apply to the amounts of virgin hydrochlorofluorocarbons which they place on the market or use for their own account within the Community and which were produced in the Community.

(iv) The total quantitative limits for the placing on the market or use for their own account by producers and importers of hydrochlorofluorocarbons are set out in Annex III.

4. (i) Paragraphs 1, 2 and 3 shall not apply to the placing on the market of controlled substances for destruction within the Community by technologies approved by the Parties:

(b) paragraphs 1, 2 and 3 shall not apply to the placing on the market and use of controlled substances if:

— they are used for feedstock or as a processing agent; or

— they are used to meet the licensed requests for essential uses of those users identified as laid down in Article 3(1) and to meet the licensed requests for critical uses of those users identified as laid down in Article 3(2) or to meet the requests for temporary emergency applications authorised in accordance with Article 3(2)(ii).

(ii) Paragraph 1 shall not apply to the placing on the market, by undertakings other than producers, of controlled substances for the maintenance or servicing of refrigeration and air-conditioning equipment until 31 December 1999.

(iii) Paragraph 1 shall not apply to the use of controlled substances for the maintenance or servicing of refrigeration and air-conditioning equipment or in finger-printing processes until 31 December 2000.

(iv) Paragraph 1(c) shall not apply to the placing on the market and use of halons that have been recovered, recycled or reclaimed in existing fire protection systems until 31 December 2002 or to the placing on the market and use of haloes for critical uses as set out in Annex VII. Each year the competent authorities of the Member States shall notify to the Commission the quantities of haloes used for critical uses, the measures taken to reduce their emissions and an estimate of such emissions, and the current activities to identify and use adequate alternatives. Each year the Commission shall review the critical uses listed in Annex VII and, if necessary, adopt modifications in accordance with the procedure referred to in Article 18(2).

(v) Except for uses listed in Annex VII, fire protection systems and fire extinguishers containing halons shall be decommissioned before 31 December 2003, and halons shall be recovered in accordance with Article 16.

5. Any producer or importer entitled to place controlled substances referred to in this Article on the market or use them for its own account may transfer that right in respect of all or any quantities of that group of substances fixed in accordance with this Article to any other producer or importer of that group of substances within the Community. Any such transfer shall be notified in advance to the Commission. The transfer of the right to place on the market or use shall not imply the further right to produce or to import.
6. The importation and placing on the market of products and equipment containing chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane and hydrobromofluorocarbons shall be prohibited, with the exception of products and equipment for which the use of the respective controlled substance has been authorised in accordance with the second subparagraph of Article 3(1) or is listed in Annex VII. Products and equipment shown to be manufactured before the entry into force of this Regulation shall not be covered by this prohibition.

Article 5

Control of the use of hydrochlorofluorocarbons

1. Subject to the following conditions, the use of hydrochlorofluorocarbons shall be prohibited:

(a) in aerosols;

(b) as solvents:
   (i) in non-contained solvent uses including open-top cleaners and open-top dewatering systems without refrigerated areas, in adhesives and mould-release agents when not employed in closed equipment, for drain cleaning where hydrochlorofluorocarbons are not recovered;
   (ii) from 1 January 2002, in all solvent uses, with the exception of precision cleaning of electrical and other components in aerospace and aeronautics applications where the prohibition shall enter into force on 31 December 2008;

(c) as refrigerants:
   (i) in equipment produced after 31 December 1995 for the following uses:
      — in non-confined direct-evaporation systems,
      — in domestic refrigerators and freezers,
      — in motor vehicle, tractor and off-road vehicle or trailer air conditioning systems operating on any energy source, except for military uses where the prohibition shall enter into force on 31 December 2008,
      — in road public-transport air-conditioning,
   (ii) in rail transport air-conditioning, in equipment produced after 31 December 1997;
   (iii) from 1 January 2000, in equipment produced after 31 December 1999 for the following uses:
      — in public and distribution cold stores and warehouses,
      — for equipment of 150 kW and over, shaft input,
   (iv) from 1 January 2001, in all other refrigeration and air-conditioning equipment produced after 31 December 2000, with the exception of fixed air-conditioning equipment, with a cooling capacity of less than 100 kW, where the use of hydrochlorofluorocarbons shall be prohibited from 1 July 2002 in equipment produced after 30 June 2002 and of reversible air-conditioning/heat pump systems where the use of hydrochlorofluorocarbons shall be prohibited from 1 January 2004 in all equipment produced after 31 December 2003;
   (v) from 1 January 2010, the use of virgin hydrochlorofluorocarbons shall be prohibited in the maintenance and servicing of refrigeration and air-conditioning equipment existing at that date; all hydrochlorofluorocarbons shall be prohibited from 1 January 2015.

Before 31 December 2008 the Commission shall review the technical and economic availability of alternatives to recycled hydrochlorofluorocarbons.

The review shall take into account the availability of technically and economically feasible alternatives to hydrochlorofluorocarbons in existing refrigeration equipment with the view to avoiding undue abandonment of equipment.

Alternatives for consideration should have a significantly less harmful effect on the environment than hydrochlorofluorocarbons.

The Commission shall submit the result of the review to the European Parliament and to the Council. It shall, as appropriate, in accordance with the procedure referred to in Article 18(2), take a decision on whether to adapt the date of 1 January 2015;

(d) for the production of foams:
   (i) for the production of all foams except integral skin foams for use in safety applications and rigid insulating foams;
   (ii) from 1 October 2000, for the production of integral skin foams for use in safety applications and polyethylene rigid insulating foams;
   (iii) from 1 January 2002, for the production of extruded polystyrene rigid insulating foams, except where used for insulated transport;
   (iv) from 1 January 2003, for the production of polyurethane foams for appliances, of polyurethane flexible faced laminate foams and of polyurethane sandwich panels, except where these last two are used for insulated transport;
   (v) from 1 January 2004, for the production of all foams, including polyurethane spray and block foams;

(e) as carrier gas for sterilisation substances in closed systems, in equipment produced after 31 December 1997;

(f) in all other applications.

2. By way of derogation from paragraph 1, the use of hydrochlorofluorocarbons shall be permitted:

(a) in laboratory uses, including research and development;

(b) as feedstock;

(c) as a processing agent.
3. By way of derogation from paragraph 1, the use of hydrochlorofluorocarbons as fire-fighting agents in existing fire protection systems may be permitted for replacing halons in applications listed in Annex VII under the following conditions:
   — halons contained in such fire protection systems shall be replaced completely,
   — halons withdrawn shall be destroyed,
   — 70% of the destruction costs shall be covered by the supplier of the hydrochlorofluorocarbons,
   — each year, Member States making use of this provision shall notify to the Commission the number of installations and the quantities of halons concerned.

4. The importation and placing on the market of products and equipment containing hydrochlorofluorocarbons for which a use restriction is in force under this Regulation or to reflect technical progress, modify the list and the dates set out in paragraph 1, but in no case extend the periods set out therein, without prejudice to the exemptions provided for in paragraph 7.

5. Until 31 December 2009, the use restrictions under this Article shall not apply to the use of hydrochlorofluorocarbons for the production of products for export to countries where the use of hydrochlorofluorocarbons in those products is still permitted.

6. The Commission may, in accordance with the procedure referred to in Article 18(2), in the light of experience with the operation of this Regulation or to reflect technical progress, modify the list and the dates set out in paragraph 1, but in no case extend the periods set out therein, without prejudice to the exemptions provided for in paragraph 7.

7. The Commission may, following a request by a competent authority of a Member State and in accordance with the procedure referred to in Article 18(2), authorise a time-limited exemption to allow the use and placing on the market of hydrochlorofluorocarbons in derogation from paragraph 1 and Article 4(3) where it is demonstrated that, for a particular use, technically and economically feasible alternative substances or technologies are not available or cannot be used. The Commission shall immediately inform the Member States of any exemptions granted.

CHAPTER III

TRADE

Article 6

Licences to import from third countries

1. The release for free circulation in the Community or inward processing of controlled substances shall be subject to the presentation of an import licence. Such licences shall be issued by the Commission after verification of compliance with Articles 6, 7, 8 and 13. The Commission shall forward a copy of each licence to the competent authority of the Member State into which the substances concerned are to be imported. Each Member State shall appoint a competent authority for that purpose. Controlled substances listed in groups I, II, III, IV and V as listed in Annex I shall not be imported for inward processing.

2. The licence, when related to an inward-processing procedure, shall be issued only if the controlled substances are to be used in the customs territory of the Community under the system of suspension provided for in Article 114(2) of Regulation (EEC) No 2913/92, and under the condition that the compensating products are re-exported to a State where the production, consumption or import of that controlled substance is not prohibited. The licence shall only be issued following approval of the competent authority of the Member State in which the inward-processing operation is to take place.

3. A request for a licence shall state:
   (a) the names and the addresses of the importer and the exporter;
   (b) the country of exportation;
   (c) the country of final destination if controlled substances are to be used in the customs territory of the Community under the inward-processing procedure as referred to in paragraph 2;
   (d) a description of each controlled substance, including:
      — the commercial description,
      — the description and the CN code as laid down in Annex IV,
      — the nature of the substance (virgin, recovered or reclaimed),
      — the quantity of the substance in kilograms;
   (e) the purpose of the proposed import;
   (f) if known, the place and date of the proposed importation and, where relevant, any changes to these data.

4. The Commission may require a certificate attesting the nature of substances to be imported.

5. The Commission may, in accordance with the procedure referred to in Article 18(2), modify the list of items mentioned in paragraph 3 and Annex IV.

Article 7

Imports of controlled substances from third countries

The release for free circulation in the Community of controlled substances imported from third countries shall be subject to quantitative limits. Those limits shall be determined and quotas allocated to undertakings for the period 1 January to 31 December 1999 and for each 12-month period thereafter in accordance with the procedure referred to in Article 18(2). They shall be allocated only:

(a) for controlled substances of groups VI and VIII as referred to in Annex I:
(b) for controlled substances if they are used for essential or critical uses or for quarantine and preshipment applications;
(c) for controlled substances if they are used for feedstock or as processing agents; or
(d) to undertakings having destruction facilities for recovered controlled substances if the controlled substances are used for destruction in the Community by technologies approved by the Parties.

Article 8

Imports of controlled substances from a State not party to the Protocol

The release for free circulation in the Community or inward processing of controlled substances imported from any State not party to the Protocol shall be prohibited.

Article 9

Imports of products containing controlled substances from a State not party to the Protocol

1. The release for free circulation in the Community of products and equipment containing controlled substances imported from any State not Party to the Protocol shall be prohibited.

2. A list of products containing controlled substances and of Combined Nomenclature codes is given in Annex V for guidance of the Member States' customs authorities. The Commission may, in accordance with the procedure referred to in Article 18(2), add to, delete items from or amend this list in the light of the lists established by the Parties.

Article 10

Imports of products produced using controlled substances from a State not party to the Protocol

In the light of the decision of the Parties, the Council shall, on a proposal from the Commission, adopt rules applicable to the release for free circulation in the Community of products which were produced using controlled substances but do not contain substances which can be positively identified as controlled substances, imported from any State not party to the Protocol. The identification of such products shall comply with periodical technical advice given to the Parties. The Council shall act by a qualified majority.

Article 11

Export of controlled substances or products containing controlled substances

1. Exports from the Community of chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane and hydrobromofluorocarbons or products and equipment, other than personal effects, containing those substances or whose continuing function relies on supply of those substances shall be prohibited. This prohibition shall not apply to exports of:
   (a) controlled substances produced under Article 3(6) to satisfy the basic domestic needs of Parties pursuant to Article 5 of the Protocol;
   (b) controlled substances produced under Article 3(7) to satisfy essential or critical uses of Parties;
   (c) products and equipment containing controlled substances produced under Article 3(5) or imported under Article 7(b);
   (d) products and equipment containing halon, to satisfy critical uses listed in Annex VII;
   (e) controlled substances to be used for feedstock and processing agent applications.

2. Exports from the Community of methyl bromide to any State not party to the Protocol shall be prohibited.

3. From 1 January 2004, exports from the Community of hydrochlorofluorocarbons to any State not party to the Protocol shall be prohibited. The Commission shall, in accordance with the procedure referred to in Article 18(2), examine the above date in the light of relevant international developments under the Protocol and modify it as appropriate.

Article 12

Export authorisation

1. Exports from the Community of controlled substances shall be subject to authorisation. Such export authorisation shall be issued by the Commission to undertakings for the period 1 January to 31 December 2001 and for each 12-month period thereafter after verification of compliance with Article 11. The Commission shall forward a copy of each export authorisation to the competent authority of the Member State concerned.

2. An application for an export authorisation shall state:
   (a) the name and address of the exporter and of the producer, where it is not the same;
   (b) a description of the controlled substance(s) intended for export, including:
      — the commercial description,
      — the description and the CN code as laid down in Annex IV,
      — the nature of the substance (virgin, recovered or reclaimed);
   (c) the total quantity of each substance to be exported;
   (d) the country(countries) of final destination of the controlled substance(s);
   (e) the purpose of the exports.

3. Each exporter shall notify the Commission of any changes which might occur during the period of validity of the authorisation in relation to the data notified under paragraph 2. Each exporter shall report to the Commission in accordance with Article 19.
Article 13

Exceptional authorisation to trade with a State not party to the Protocol

By way of derogation from Articles 8, 9(1), 10, 11(2) and (3), trade with any State not party to the Protocol in controlled substances and products which contain or are produced by means of one or more such substances may be authorised by the Commission, to the extent that the State not party to the Protocol is determined by a meeting of the Parties to be in full compliance with the Protocol and has submitted data to that effect as specified in Article 7 of the Protocol. The Commission shall act in accordance with the procedure referred to in Article 18(2) of this Regulation.

Article 14

Trade with a territory not covered by the Protocol

1. Subject to any decision taken under paragraph 2, Articles 8, 9, 11(2) and (3) shall apply to any territory not covered by the Protocol as they apply to any State not party to the Protocol.

2. Where the authorities of a territory not covered by the Protocol are in full compliance with the Protocol and have submitted data to that effect as specified in Article 7 of the Protocol, the Commission may decide that some or all of the provisions of Articles 8, 9 and 11 of this Regulation shall not apply in respect of that territory.

The Commission shall take its decision in accordance with the procedure referred to in Article 18(2).

Article 15

Notification of Member States

The Commission shall immediately notify the Member States of any measures it adopts pursuant to Articles 6, 7, 9, 12, 13 and 14.

CHAPTER IV

EMISSION CONTROL

Article 16

Recovery of used controlled substances

1. Controlled substances contained in:
   — refrigeration, air-conditioning and heat pump equipment, except domestic refrigerators and freezers,
   — equipment containing solvents,
   — fire protection systems and fire extinguishers,
shall be recovered for destruction by technologies approved by the Parties or by any other environmentally acceptable destruction technology, or for recycling or reclamation during the servicing and maintenance of equipment or before the dismantling or disposal of equipment.

2. Controlled substances contained in domestic refrigerators and freezers shall be recovered and dealt with as provided for in paragraph 1 after 31 December 2001.

3. Controlled substances contained in products, installations and equipment other than those mentioned in paragraphs 1 and 2 shall be recovered, if practicable, and dealt with as provided in paragraph 1.

4. Controlled substances shall not be placed on the market in disposable containers, except for essential uses.

5. Member States shall take steps to promote the recovery, recycling, reclamation and destruction of controlled substances and shall assign to users, refrigeration technicians or other appropriate bodies responsibility for ensuring compliance with the provisions of paragraph 1. Member States shall define the minimum qualification requirements for the personnel involved. By 31 December 2001 at the latest, Member States shall report to the Commission on the programmes related to the above qualification requirements. The Commission shall evaluate the measures taken by the Member States. In the light of this evaluation and of technical and other relevant information, the Commission, as appropriate, shall propose measures regarding those minimum qualification requirements.

6. Member States shall report to the Commission by 31 December 2001 on the systems established to promote the recovery of used controlled substances, including the facilities available and the quantities of used controlled substances recovered, recycled, reclaimed or destroyed.


Article 17

Leakages of controlled substances

1. All precautionary measures practicable shall be taken to prevent and minimise leakages of controlled substances. In particular, fixed equipment with a refrigerating fluid charge of more than 3 kg shall be checked for leakages annually. Member States shall define the minimum qualification requirements for the personnel involved. By 31 December 2001 at the latest, Member States shall report to the Commission on the programmes related to the above qualification requirements. The Commission shall evaluate the measures taken by the Member States. In the light of this evaluation and of technical and other relevant information, the Commission, as appropriate, shall propose measures regarding those minimum qualification requirements.

The Commission shall promote the preparation of European standards relating to the control of leakages and to the recovery of substances leaking from commercial and industrial air-conditioning and refrigeration equipment, from fire-protection systems and from equipment containing solvents as well as, as appropriate, to technical requirements with respect to the leakproofness of refrigeration systems.

2. All precautionary measures practicable shall be taken to prevent and minimise leakages of methyl bromide from fumigation installations and operations in which methyl bromide is used. Whenever methyl bromide is used in soil fumigation, the use of virtually impermeable films for a sufficient time, or other techniques ensuring at least the same level of environmental protection shall be mandatory. Member States shall define the minimum qualification requirements for the personnel involved.

3. All precautionary measures practicable shall be taken to prevent and minimise leakages of controlled substances used as feedstock and as processing agents.

4. All precautionary measures practicable shall be taken to prevent and minimise any leakage of controlled substances inadvertently produced in the course of the manufacture of other chemicals.

5. The Commission shall develop as appropriate and ensure the dissemination of notes describing best available technologies and best environmental practices concerning the prevention and minimisation of leakages and emissions of controlled substances.

CHAPTER V

COMMITTEE, REPORTING, INSPECTION AND PENALTIES

Article 18

Committee

1. The Commission shall be assisted by a Committee.

2. Where reference is made to this paragraph, Articles 4 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 4(3) of Decision 1999/468/EC shall be set at one month.

3. The Committee shall adopt its rules of procedure.

Article 19

Reporting

1. Every year before 31 March, each producer, importer and exporter of controlled substances shall communicate to the Commission, sending a copy to the competent authority of the Member State concerned, data as specified below for each controlled substance in respect of the period 1 January to 31 December of the preceding year.

The format of this report shall be established in accordance with the procedure referred to in Article 18(2).

(a) Each producer shall communicate:

— its total production of each controlled substance,
— any production placed on the market or used for the producer’s own account within the Community, separately identifying production for feedstock, processing agent, quarantine and preshipment and other uses,
— any production to meet the essential uses in the Community, licensed in accordance with Article 3(4),
— any production authorised under Article 3(6) to satisfy basic domestic needs of Parties pursuant to Article 5 of the Protocol,
— any production authorised under Article 3(7) to satisfy essential, or critical, uses of Parties,
— any increase in production authorised under Article 3(8), (9) and (10) in connection with industrial rationalisation,
— any quantities recycled, reclaimed or destroyed,
— any stocks.

(b) Each importer, including any producers who also import, shall communicate:

— any quantities released for free circulation in the Community, separately identifying imports for feedstock and processing-agent uses, for essential or critical uses licensed in accordance with Article 3(4), for use in quarantine and preshipment applications and for destruction,
— any quantities of controlled substances entering the Community under the inward-processing procedure,
— any quantities of used controlled substances imported for recycling or reclamation,
— any stocks.

(c) Each exporter, including any producers who also export, shall communicate:

— any quantities of controlled substances exported from the Community, including substances which are re-exported under the inward processing procedure, separately identifying quantities exported to each country of destination and quantities exported for feedstock and processing agent uses, essential uses, critical uses, quarantine and preshipment uses, to meet the basic domestic needs of Parties pursuant to Article 5 of the Protocol and for destruction,
— any quantities of used controlled substances exported for recycling or reclamation,
— any stocks.

2. Every year before 31 December, Member States’ customs authorities shall return to the Commission the stamped used licence documents.
3. Every year before 31 March, each user who has been authorised to take advantage of an essential use exemption under Article 3(1) shall, for each substance for which an authorisation has been received, report to the Commission, sending a copy to the competent authority of the Member State concerned, the nature of the use, the quantities used during the previous year, the quantities held in stock, any quantities recycled or destroyed, and the quantity of products containing those substances placed on the Community market and/or exported.

4. Every year before 31 March, each undertaking which has been authorised to use controlled substances as a processing agent shall report to the Commission the quantities used during the previous year, and an estimate of the emissions which occurred during such use.

5. The Commission shall take appropriate steps to protect the confidentiality of the information submitted to it.

6. The Commission may, in accordance with the procedure referred to in Article 18(2), modify the reporting requirements laid down in paragraphs 1 to 4, to meet commitments under the Protocol or to improve the practical application of those reporting requirements.

Article 20

Inspection

1. In carrying out the tasks assigned to it by this Regulation, the Commission may obtain all the information from the governments and competent authorities of the Member States and from undertakings.

2. When requesting information from an undertaking the Commission shall at the same time forward a copy of the request to the competent authority of the Member State within the territory of which the undertaking's seat is situated, together with a statement of the reasons why that information is required.

3. The competent authorities of the Member States shall carry out the investigations which the Commission considers necessary under this Regulation. Member States shall also conduct random checks on imports of controlled substances, and communicate the schedules and results of those checks to the Commission.

4. Subject to the agreement of the Commission and of the competent authority of the Member State within the territory of which the investigations are to be made, the officials of the Commission shall assist the officials of that authority in the performance of their duties.

5. The Commission shall take appropriate action to promote adequate exchange of information and cooperation between national authorities and between national authorities and the Commission. The Commission shall take appropriate steps to protect the confidentiality of information obtained under this Article.

Article 21

Penalties

Member States shall determine the necessary penalties applicable to breaches of this Regulation. The penalties shall be effective, proportionate and dissuasive. Member States shall notify the provisions regarding penalties to the Commission by 31 December 2000 at the latest and shall also notify it without delay of any subsequent amendment affecting such provisions.

NEW SUBSTANCES

Article 22

New substances

1. The production, release for free circulation in the Community and inward processing, placing on the market and use of new substances in Annex II are prohibited. This prohibition does not apply to new substances if they are used as feedstock.

2. The Commission shall, as appropriate, make proposals to include in Annex II any substances that are not controlled substances but that are found by the Scientific Assessment Panel under the Protocol to have a significant ozone-depleting potential, including on possible exemptions from paragraph 1.

FINAL PROVISIONS

Article 23

Repeal

Regulation (EC) No 3093/94 shall be repealed as from 1 October 2000.

References to the repealed Regulation shall be construed as references to this Regulation.

Article 24

Entry into force

This Regulation shall enter into force on the day following that of its publication in the Official Journal of the European Communities.

It shall apply from 1 October 2000.
This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Luxembourg, 29 June 2000.

For the European Parliament
The President
N. FONTAINE

For the Council
The President
M. MARQUES DA COSTA
### ANNEX 1

#### Controlled substances covered

<table>
<thead>
<tr>
<th>Group</th>
<th>Substance</th>
<th>Ozone-depleting potential (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group I</strong></td>
<td>CFCl₃ (CFC-11)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>CF₂Cl₂ (CFC-12)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₂F₃Cl₃ (CFC-113)</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>C₂F₄Cl₂ (CFC-114)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₂F₅Cl (CFC-115)</td>
<td>0,6</td>
</tr>
<tr>
<td><strong>Group II</strong></td>
<td>CF₃Cl (CFC-13)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₂FCl₅ (CFC-111)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₂F₂Cl₄ (CFC-112)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃FCl₇ (CFC-211)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₂Cl₆ (CFC-212)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₃Cl₅ (CFC-213)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₄Cl₄ (CFC-214)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₅Cl₃ (CFC-215)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₆Cl₂ (CFC-216)</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃F₇Cl (CFC-217)</td>
<td>1,0</td>
</tr>
<tr>
<td><strong>Group III</strong></td>
<td>CF₂BrCl (halon-1211)</td>
<td>3,0</td>
</tr>
<tr>
<td></td>
<td>CF₂Br (halon-1301)</td>
<td>10,0</td>
</tr>
<tr>
<td></td>
<td>C₂F₂Br₂ (halon-2402)</td>
<td>6,0</td>
</tr>
<tr>
<td><strong>Group IV</strong></td>
<td>CCl₄ (carbon tetrachloride)</td>
<td>1,1</td>
</tr>
<tr>
<td><strong>Group V</strong></td>
<td>C₃H₃Cl (1,1,1-trichloroethane)</td>
<td>0,1</td>
</tr>
<tr>
<td><strong>Group VI</strong></td>
<td>CH₃Br (methyl bromide)</td>
<td>0,6</td>
</tr>
<tr>
<td><strong>Group VII</strong></td>
<td>CHFBr₃</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>CHFBr</td>
<td>0,74</td>
</tr>
<tr>
<td></td>
<td>CH₂FBr</td>
<td>0,73</td>
</tr>
<tr>
<td></td>
<td>C₂HFBr₄</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>C₂HF₂Br₂</td>
<td>1,8</td>
</tr>
<tr>
<td></td>
<td>C₂HF₂Br</td>
<td>1,6</td>
</tr>
<tr>
<td></td>
<td>C₂HFBr</td>
<td>1,2</td>
</tr>
<tr>
<td></td>
<td>C₂HF₂Br₂</td>
<td>1,1</td>
</tr>
<tr>
<td></td>
<td>C₂HF₃Br</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>C₂HF₄Br</td>
<td>1,6</td>
</tr>
<tr>
<td></td>
<td>C₂HF₅Br</td>
<td>1,7</td>
</tr>
<tr>
<td></td>
<td>C₂HF₆Br</td>
<td>1,1</td>
</tr>
<tr>
<td></td>
<td>C₂HF₇Br</td>
<td>0,1</td>
</tr>
<tr>
<td></td>
<td>C₂HF₈Br</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>C₂HF₉Br</td>
<td>1,9</td>
</tr>
<tr>
<td></td>
<td>C₂HF₁₀Br</td>
<td>1,8</td>
</tr>
<tr>
<td></td>
<td>C₂HF₁₁Br</td>
<td>2,2</td>
</tr>
<tr>
<td>Group</td>
<td>Substance</td>
<td>Ozone-depleting potential (1)</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₂</td>
<td>2,0</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr</td>
<td>3,3</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₃</td>
<td>1,9</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₄</td>
<td>2,1</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₅</td>
<td>5,6</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₆</td>
<td>7,5</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₇</td>
<td>1,4</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₈</td>
<td>1,9</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₉</td>
<td>3,1</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₀</td>
<td>2,5</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₁</td>
<td>4,4</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₂</td>
<td>0,3</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₃</td>
<td>1,0</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₄</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₅</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>C₃H₂FBr₁₆</td>
<td>0,7</td>
</tr>
<tr>
<td>Group VIII</td>
<td>CHFCl₂</td>
<td>(HCFC-21) (1)</td>
</tr>
<tr>
<td></td>
<td>CHF₂Cl</td>
<td>(HCFC-22) (1)</td>
</tr>
<tr>
<td></td>
<td>CH₂FCl</td>
<td>(HCFC-31)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₁</td>
<td>(HCFC-121)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₂</td>
<td>(HCFC-122)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₃</td>
<td>(HCFC-123) (1)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₄</td>
<td>(HCFC-124) (1)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₅</td>
<td>(HCFC-131)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₆</td>
<td>(HCFC-132)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₇</td>
<td>(HCFC-133)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₈</td>
<td>(HCFC-141)</td>
</tr>
<tr>
<td></td>
<td>CH₃CFCl₂</td>
<td>(HCFC-141b) (1)</td>
</tr>
<tr>
<td></td>
<td>C₃H₃FCl₁₀</td>
<td>(HCFC-142)</td>
</tr>
<tr>
<td></td>
<td>CH₂CFCl₁₁</td>
<td>(HCFC-142b) (1)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₁</td>
<td>(HCFC-151)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₂</td>
<td>(HCFC-221)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₃</td>
<td>(HCFC-222)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₄</td>
<td>(HCFC-223)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₅</td>
<td>(HCFC-224)</td>
</tr>
<tr>
<td></td>
<td>C₃H₄FCl₆</td>
<td>(HCFC-225)</td>
</tr>
<tr>
<td></td>
<td>CF₂CF₂CHCl₂</td>
<td>(HCFC-225ca) (1)</td>
</tr>
<tr>
<td></td>
<td>CF₂Cl₂CF₂CHCl₂</td>
<td>(HCFC-225cb) (1)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₁</td>
<td>(HCFC-226)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₂</td>
<td>(HCFC-231)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₃</td>
<td>(HCFC-232)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₄</td>
<td>(HCFC-233)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₅</td>
<td>(HCFC-234)</td>
</tr>
<tr>
<td></td>
<td>C₃H₅FCl₆</td>
<td>(HCFC-235)</td>
</tr>
<tr>
<td>Group</td>
<td>Substance</td>
<td>Ozone-depleting potential (1)</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>C₃H₃FCl₄ (HCFC-241)</td>
<td>0.090</td>
<td></td>
</tr>
<tr>
<td>C₃H₃F₂Cl₃ (HCFC-242)</td>
<td>0.130</td>
<td></td>
</tr>
<tr>
<td>C₃H₃F₃Cl₂ (HCFC-243)</td>
<td>0.120</td>
<td></td>
</tr>
<tr>
<td>C₃H₃F₄Cl (HCFC-244)</td>
<td>0.140</td>
<td></td>
</tr>
<tr>
<td>C₃H₄FCl₃ (HCFC-251)</td>
<td>0.010</td>
<td></td>
</tr>
<tr>
<td>C₃H₄F₂Cl₂ (HCFC-252)</td>
<td>0.040</td>
<td></td>
</tr>
<tr>
<td>C₃H₄F₃Cl (HCFC-253)</td>
<td>0.030</td>
<td></td>
</tr>
<tr>
<td>C₃H₅F₂Cl (HCFC-261)</td>
<td>0.020</td>
<td></td>
</tr>
<tr>
<td>C₃H₅F₃Cl (HCFC-262)</td>
<td>0.020</td>
<td></td>
</tr>
<tr>
<td>C₃H₆FCl (HCFC-271)</td>
<td>0.030</td>
<td></td>
</tr>
</tbody>
</table>

(1) These ozone-depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically in the light of decisions taken by the Parties.

(2) This formula does not refer to 1,1,2-trichloroethylene.

(3) Identifies the most commercially viable substance as prescribed in the Protocol.
ANNEX II

New substances

Bromochloromethane

ANNEX III

Total quantitative limits on producers and importers placing controlled substances on the market and using them for their own account in the Community
(calculated levels expressed in ODP tonnes)

<table>
<thead>
<tr>
<th>Substance For 12-month periods from 1 January to 31 December</th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
<th>Group IV</th>
<th>Group V For uses other than quarantine and pre-shipment applications</th>
<th>Group VI (1) For quarantine and pre-shipment applications</th>
<th>Group VII</th>
<th>Group VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8 665</td>
<td>0</td>
<td>8 079</td>
</tr>
<tr>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8 665</td>
<td>8 665</td>
<td>0</td>
<td>8 079</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4 621</td>
<td>607</td>
<td>607</td>
<td>6 678</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4 621</td>
<td>607</td>
<td>607</td>
<td>5 676</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>3 005</td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2006</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2010</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 888</td>
<td>607</td>
<td>607</td>
<td>2 003</td>
</tr>
</tbody>
</table>

(1) Calculated on the basis of ODP = 0.6.
# ANNEX IV

**Groups, Combined Nomenclature 1999 (CN 99) Codes** and descriptions for the substances referred to in Annexes I and III

<table>
<thead>
<tr>
<th>Group</th>
<th>CN 99 code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>2903 41 00</td>
<td>-- Trichlorofluoromethane</td>
</tr>
<tr>
<td></td>
<td>2903 42 00</td>
<td>-- Dichlorodifluoromethane</td>
</tr>
<tr>
<td></td>
<td>2903 43 00</td>
<td>-- Trichlorotrifluoroethanes</td>
</tr>
<tr>
<td></td>
<td>2903 44 10</td>
<td>-- Dichlorotetrafluoroethanes</td>
</tr>
<tr>
<td></td>
<td>2903 44 90</td>
<td>-- Chloropentafluoroethane</td>
</tr>
<tr>
<td></td>
<td>2903 45 10</td>
<td>-- Chlorotrifluoromethane</td>
</tr>
<tr>
<td></td>
<td>2903 45 15</td>
<td>-- Pentachlorotrifluoroethanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 20</td>
<td>-- Tetrachlorodifluoroethanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 25</td>
<td>-- Heptachlorodifluoropropanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 30</td>
<td>-- Hexachlorodifluoropropanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 35</td>
<td>-- Pentachlorotrifluoropropanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 40</td>
<td>-- Tetrachlorodifluoropropanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 45</td>
<td>-- Trichloropentafluoroethanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 50</td>
<td>-- Dichlorohexafluoropropanes</td>
</tr>
<tr>
<td></td>
<td>2903 45 55</td>
<td>-- Chloroheptafluoropropanes</td>
</tr>
<tr>
<td>Group II</td>
<td>2903 46 10</td>
<td>-- Bromochlorodifluoromethane</td>
</tr>
<tr>
<td></td>
<td>2903 46 20</td>
<td>-- Bromotrifluoromethane</td>
</tr>
<tr>
<td></td>
<td>2903 46 30</td>
<td>-- None</td>
</tr>
<tr>
<td>Group III</td>
<td>2903 46 90</td>
<td>-- Dibromotetrafluoroethanes</td>
</tr>
<tr>
<td>Group IV</td>
<td>2903 14 00</td>
<td>-- Carbon tetrachloride</td>
</tr>
<tr>
<td>Group V</td>
<td>2903 19 10</td>
<td>-- 1,1,1-Trichloroethane (methylchloroform)</td>
</tr>
<tr>
<td>Group VI</td>
<td>2903 30 33</td>
<td>-- Bromomethane (methyl bromide)</td>
</tr>
<tr>
<td>Group VII</td>
<td>2903 49 30</td>
<td>-- Hydrobromofluoromethanes, -ethanes or -propanes</td>
</tr>
<tr>
<td>Group VIII</td>
<td>2903 49 10</td>
<td>-- Hydrochlorofluoromethanes, -ethanes or -propanes</td>
</tr>
</tbody>
</table>

### Exclusions

<table>
<thead>
<tr>
<th>Exclusion Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3824 71 00</td>
<td>-- Mixtures containing one or more substances falling within CN codes 2903 41 00 to 2903 45 55.</td>
</tr>
<tr>
<td>3824 79 00</td>
<td>-- Mixtures containing one or more substances falling within CN codes 2903 46 10 to 2903 46 90.</td>
</tr>
<tr>
<td>3824 90 95</td>
<td>-- Mixtures containing one or more substances falling within CN codes 2903 14 00, 2903 19 10, 2903 30 33, 2903 49 10 or 2903 49 30.</td>
</tr>
</tbody>
</table>

---

(1) An ‘ex’ before a code implies that other products than those referred to in the column ‘Description’ may fall under that subheading.
ANNEX V

Combined Nomenclature (CN) codes for products containing controlled substances (*)

1. Automobiles and trucks equipped with air-conditioning units
   
   CN codes
   
   8701 20 10 – 8701 90 90
   8702 10 11 – 8702 90 90
   8703 10 11 – 8703 90 90
   8704 10 11 – 8704 90 00
   8705 10 00 – 8705 90 90
   8706 00 11 – 8706 00 99

2. Domestic and commercial refrigeration and air-conditioning/heat-pump equipment

   Refrigerators:
   
   CN codes
   
   8418 10 10 – 8418 29 00
   8418 50 11 – 8418 50 99
   8418 61 10 – 8418 69 99

   Freezers:
   
   CN codes
   
   8418 10 10 – 8418 29 00
   8418 30 10 – 8418 30 99
   8418 40 10 – 8418 40 99
   8418 50 11 – 8418 50 99
   8418 61 10 – 8418 61 90
   8418 69 10 – 8418 69 99

   Dehumidifiers:
   
   CN codes
   
   8415 10 00 – 8415 83 90
   8479 60 00
   8479 89 10
   8479 89 98

   Water coolers and gas liquefying units:
   
   CN codes
   
   8419 60 00
   8419 89 98

   Ice machines:
   
   CN codes
   
   8418 10 10 – 8418 29 00
   8418 30 10 – 8418 30 99
   8418 40 10 – 8418 40 99
   8418 50 11 – 8418 50 99
   8418 61 10 – 8418 61 90
   8418 69 10 – 8418 69 99

(*) These customs codes are given for the guidance of the Member States’ customs authorities
Air-conditioning and heat-pump units:

CN codes
8415 10 00 – 8415 83 90
8418 61 10 – 8418 61 90
8418 69 10 – 8418 69 99
8418 99 10 – 8418 99 90

3. Aerosol products, except medical aerosols

Food products:

CN codes
0404 90 21 – 0404 90 89
1517 90 10 – 1517 90 99
2106 90 92
2106 90 98

Paints and varnishes, prepared water pigments and dyes:

CN codes
3208 10 10 – 3208 10 90
3208 20 10 – 3208 20 90
3208 90 11 – 3208 90 99
3209 10 00 – 3209 90 00
3210 00 10 – 3210 00 90
3212 90 90

Perfumery, cosmetic or toilet preparations:

CN codes
3303 00 10 – 3303 00 90
3304 30 00
3304 99 00
3305 10 00 – 3305 90 90
3306 10 00 – 3306 90 00
3307 10 00 – 3307 30 00
3307 49 00
3307 90 00

Surface-active preparations:

CN codes
3402 20 10 – 3402 20 90

Lubricating preparations:

CN codes
2710 00 81
2710 00 97
3403 11 00
3403 19 10 – 3403 19 99
3403 91 00
3403 99 10 – 3403 99 90
Household preparations:
CN codes
3405 10 00
3405 20 00
3405 30 00
3405 40 00
3405 90 10 – 3405 90 90

Articles of combustible materials:
CN codes
3606 10 00

Insecticides, rodenticides, fungicides, herbicides, etc.:
CN codes
3808 10 10 – 3808 10 90
3808 20 10 – 3808 20 80
3808 30 11 – 3808 30 90
3808 40 10 – 3808 40 90
3808 90 10 – 3808 90 90

Finishing agents, etc.:
CN codes
3809 10 10 – 3809 10 90
3809 91 00 – 3809 93 00

Preparations and charges for fire-extinguishers; charged fire-extinguishing grenades:
CN codes
3813 00 00

Organic composite solvents, etc.:
CN codes
3814 00 10 – 3814 00 90

Prepared de-icing fluids:
CN codes
3820 00 00

Products of the chemical or allied industries:
CN codes
3824 90 10
3824 90 35
3824 90 40
3824 90 45 – 3824 90 95

Silicones in primary forms:
CN codes
3910 00 00
Arms:
CN codes
9304 00 00

4. **Portable fire extinguishers**
   CN codes
   8424 10 10 – 8424 10 99

5. **Insulation boards, panels and pipe covers**
   CN codes
   3917 21 10 – 3917 40 90
   3920 10 23 – 3920 99 90
   3921 11 00 – 3921 90 90
   3925 10 00 – 3925 90 80
   3926 90 10 – 3926 90 99

6. **Pre-polymers**
   CN codes
   3901 10 10 – 3911 90 99
ANNEX VI

Processes in which controlled substances are used as processing agents

— Use of carbon tetrachloride for the elimination of nitrogen trichloride in the production of chlorine and caustic soda,
— Use of carbon tetrachloride in the recovery of chlorine in tail gas from production of chlorine,
— Use of carbon tetrachloride in the manufacture of chlorinated rubber,
— Use of carbon tetrachloride in the manufacture of isobutyl acetophenone (ibuprofen-analgesic),
— Use of carbon tetrachloride in the manufacture of polyphenyleneterephthalamide,
— Use of CFC-11 in manufacture of fine synthetic polyolefin fibre sheet,
— Use of CFC-113 in the manufacture of vinorelbine (pharmaceutical product),
— Use of CFC-12 in the photochemical synthesis of perfluoropolyetherpolyperoxide precursors of Z-perfluoropolyethers and difunctional derivatives,
— Use of CFC-113 in the reduction of perfluoropolyetherpolyperoxide intermediate for production of perfluoropolyether diesters,
— Use of CFC-113 in the preparation of perfluoropolyether diols with high functionality,
— Use of carbon tetrachloride in the production of tralomethrine (insecticide).

Also the use of HCFCs in the above processes when used to replace CFC or carbon tetrachloride.

ANNEX VII

Critical uses of halon

Use of halon 1301:
— in aircraft for the protection of crew compartments, engine nacelles, cargo bays and dry bays,
— in military land vehicles and naval vessels for the protection of spaces occupied by personnel and engine compartments,
— for the making inert of occupied spaces where flammable liquid and/or gas release could occur in the military and oil, gas and petrochemical sector, and in existing cargo ships,
— for the making inert of existing manned communication and command centres of the armed forces or others, essential for national security,
— for the making inert of spaces where there may be a risk of dispersion of radioactive matter,
— in the Channel Tunnel and associated installations and rolling stock.

Use of halon 1211:
— in hand-held fire extinguishers and fixed extinguisher equipment for engines for use on board aircraft,
— in aircraft for the protection of crew compartments, engine nacelles, cargo bays and dry bays,
— in fire extinguishers essential to personal safety used for initial extinguishing by fire brigades,
— in military and police fire extinguishers for use on persons.