

# GUIDANCE ON THE NEW EC REGULATION No 2037/2000 ON SUBSTANCES THAT DEplete THE OZONE LAYER

**Advice for suppliers and users  
of ozone depleting substances in:  
Refrigeration and Air-conditioning,  
Fire-fighting, Foam Blowing,  
Aerosols and as Solvents**

This leaflet has been produced by DETR/DTI to provide guidance to industry on the likely consequences of the new EC Regulation. It should not be relied upon as a definitive statement of the law and is not a substitute for legal advice. Interpretation of the law is a matter for the courts. DETR and DTI accept no liability for any loss resulting from reliance on this document.

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# Introduction

**This booklet presents a summary of key aspects of the new European Community (EC) Regulation No 2037/2000 on ozone depleting substances (ODS), that is applicable from 1st October 2000.**

Over 170 countries have now ratified the Montreal Protocol on substances that deplete the ozone layer, an international treaty for the protection of the stratospheric ozone layer. Within the EU, the protocol was previously enforced by EC Regulation 3093/94. However, recent changes to the Montreal Protocol have made it necessary to introduce tighter restrictions resulting in a new EC Regulation No 2037/2000 on ozone depleting substances, applicable from 1st October 2000. As the EC Legislation is in the form of a Regulation and not a Directive, it is directly applicable in UK law.

The new EC Regulation will affect users, producers, suppliers, maintenance and servicing engineers, and those involved in the disposal of all ODS. These include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, 1,1,1 trichloroethane, carbon tetrachloride and bromochloromethane (CBM). These substances are mainly used in refrigeration, air-conditioning, foam blowing, as solvents and in fire fighting.

The information contained in this booklet is intended as a short guide explaining the impact of the new EC Regulation. The new EC Regulation introduces bans on the supply and use of CFCs, halons, 1,1,1 trichloroethane, carbon tetrachloride and CBM. These prohibitions take effect immediately on or shortly after 1st October 2000 - users of these substances will need to take early action. The new EC Regulation also introduces a revised schedule for the phase out of HCFCs, accompanied by a number of important new use controls.

To accompany this summary booklet, a series of three more detailed booklets has been published by the DTI and DETR for the refrigeration and air-conditioning, solvent cleaning and fire fighting sectors.

It should be noted that this booklet does not cover those aspects of the new EC Regulation related to methyl bromide. Information on this topic can be obtained from DETR or MAFF; contact details are provided at the end of this booklet.

# Substances affected by the new EC Regulation

The new EC Regulation affects the supply and use of all ozone depleting substances (ODS). Some of the key substances are listed below. Note: this list is not intended to be fully comprehensive.

## a) Refrigerants

The substances underlined are the most commonly used.

CFCs: 11, 12, 13, 113, 114, 500, 502, 503

HCFCs: 22, 123, 124

HCFC blends: various including R401a, R402 a, R403a, R406a, R408a, R411b

Common trade names: Arcton, Forane, Freon, Isceon, Solkane, Suva

## b) Solvents

CFC: 113

1,1,1 trichloroethane

HCFCs: 141b

Bromochloromethane (CBM)

Common trade names: Arklone, Freon, Flugene, Forane, Kaltron, Fluorisol, Gensolv, Genklene

## c) Foam Blowing Agents

HCFCs: 22, 141b, 142b

## d) Fire Fighting Fluids

Halons: 1211, 1301

NOTE: SOME OF THE TRADE NAMES QUOTED ABOVE ARE USED ONLY FOR ODS SUBSTANCES WHILST OTHERS ARE USED FOR BOTH ODS AND NON-ODS SUBSTANCES.

## Highlights of the new EC Regulation

The new EC Regulation applies from 1st October 2000, upon which date the previous Regulation, EC 3093/94, is repealed. This booklet summarises key aspects of the new EC Regulation - a full hard copy of the document is available from the DETR (contact details given at the end of the booklet). Electronic versions can be obtained from the EC web site, <http://www.europa.eu.int/eur-lex/en/oj/index-list.html> (click on L244) or from the DTI web site <http://www.dti.gov.uk/access/ozone.htm>

Highlights of the new EC Regulation include:

- New bans on the supply<sup>1</sup> and use<sup>2</sup> of CFCs, Halons, 1,1,1 trichloroethane, carbon tetrachloride, hydrobromofluorocarbons and CBM<sup>3</sup>. These bans apply from 1st October 2000 for most applications, although certain delays and exemptions apply - these are described in this booklet. The bans on these substances apply to both virgin and recycled material.
- Significant revisions to the controls on use<sup>2</sup> of HCFCs. This adds a number of new controls to those specified in the previous EC Regulation. All the major use sectors for HCFCs are subject to new use controls.
- Tougher requirements regarding the recovery of ODS from products and equipment and to prevent leakage from systems. A ban on supply of ODS in disposable containers, except for essential uses.
- A revised timetable for the supply<sup>1</sup> of HCFCs. The timetable is designed to match the new HCFC use controls. Some cuts come into effect in 2001 and there will be a substantial cut by 2003. No virgin HCFCs can be placed on the market after the end of 2009.
- A ban on the import of products containing ODS. This is immediate for all ODS except HCFCs - the specific HCFC use control dates also introduce import bans for those products and equipment which they cover.
- A ban on the export of virgin and recycled CFCs and halons and products containing them, although certain exemptions apply.
- A new timetable for the phase out of EU production of HCFCs.

<sup>1</sup> Supply is defined as change of ownership, even without payment. It is referred to as "placing on the market" in the Regulation.

<sup>2</sup> Use is defined as use in the production, maintenance or servicing of equipment. Running an existing CFC appliance, without maintenance, would NOT qualify as use.

<sup>3</sup> CBM (bromochloromethane) is a new substance not referred to in the previous Regulation. It is sometimes referred to as Halon 1011 or as BCM.

# Refrigeration and air conditioning

## a) Supply and Use Controls for CFC<sup>4</sup> Systems

ARTICLES  
4.1/4.4  
(ii) & (iii)

New controls on supply and use of CFCs will have immediate effect on the refrigeration and air-conditioning market. From October 1st 2000 there will be a ban on supply of CFCs. From 1st January 2001 there will be a ban on the use of these refrigerants for the maintenance of existing equipment. Provision for exemption to this ban is available, for use in certain existing military applications, until 31st December 2008.

## b) HCFC Use Controls, New Equipment

ARTICLE 5.1c

The previous EC Regulation (3093/94) already has a number of end use controls that are repeated in the new EC Regulation. This means there is already a ban on the use of HCFCs in the manufacture of new equipment for the following applications:

- non-confined direct evaporation systems
- domestic refrigerators and freezers
- motor vehicle, tractor and off-road vehicle or trailer air conditioning systems
- road public-transport air-conditioning
- rail transport air conditioning applications
- public and distribution cold stores and warehouses
- equipment of 150 kW and over shaft input

The new EC Regulation introduces further use controls.

**The use of HCFCs will be banned for the manufacture of new equipment in all refrigeration and air-conditioning applications from 1st January 2001** except for 2 temporary exemptions:

- the ban is delayed until 1st July 2002 for fixed air-conditioning equipment with a cooling capacity of less than 100 kW
- the ban is delayed until 1st January 2004 for reversible air-conditioning/heat pump systems.

<sup>4</sup> In this section, reference to CFCs includes Refrigerant 13B1, which is a Halon.

### **c) HCFC Use Controls, Existing Equipment**

ARTICLE 5.1c

New controls are being introduced related to the use of HCFCs in the maintenance of refrigeration and air conditioning systems manufactured prior to the relevant manufacture ban. There will be a ban on the use of virgin HCFCs from 1st January 2010 and a ban on the use of all HCFCs, including recycled materials, from 1st January 2015.

### **d) Recovery & Destruction**

ARTICLE 16

With immediate effect, all ODS used in refrigeration and air conditioning equipment must be recovered during servicing and maintenance of equipment or prior to dismantling or disposal of equipment. After 1st January 2001 recovered CFCs must be destroyed by an environmentally acceptable technology. Recovered HCFCs can either be destroyed or can be re-used until 2015.

This does not apply to domestic refrigerators and freezers on disposal until 1st January 2002.

### **e) Leakage Prevention**

ARTICLE 17

The new EC Regulation strengthens requirements for the prevention of leakage of ODS refrigerants from systems. All precautionary measures practicable must be taken in order to prevent and minimise leakage.

An important new rule is that fixed equipment containing ODS, which has a refrigerating fluid charge greater than 3 kg must be checked annually for leakage.

To ensure that recovery and leakage issues are properly dealt with by refrigeration technicians the Regulation calls for each Member State to set a minimum qualification level for all personnel servicing and maintaining equipment and handling refrigerants. This must be done by the end of 2001.

### **f) Trade Controls**

A number of trade controls will influence the import and export of refrigeration and air-conditioning products that contain ODS. Details of import and export controls are given on Page 10.

## Solvents

### a) Use Controls for CFCs, 1,1,1 trichloroethane, CBM and carbon tetrachloride

ARTICLE.4.1

There will be a ban on the use of CFCs, 1,1,1 trichloroethane, CBM and carbon tetrachloride for any solvent application from 1st October 2000.

### b) Use Controls for HCFCs

ARTICLE 5.1b

Use of HCFCs in non-contained solvent uses remains prohibited.

From 1st January 2002 there is a ban on the use of HCFCs in all solvent applications. There is a temporary exemption for precision cleaning of electrical and other components in aerospace and aeronautics applications where the use ban shall enter into force on 31st December 2008.

### c) Recovery & Destruction

ARTICLE 16

With immediate effect all ozone depleting solvents **must** be recovered during servicing and maintenance of equipment or prior to dismantling or disposal of equipment. With the exception of HCFCs, all recovered ODS solvents must be destroyed by an environmentally acceptable technology. HCFCs can be recovered for re-use in applications where this is permitted by the new Regulation.

## Aerosols

ARTICLE 4.1

ARTICLE 5.1a

Use of CFCs in the production of aerosols is prohibited from 1st October 2000. The UK non-medical aerosol industry has not used CFCs since 1990. Use of HCFCs as an aerosol propellant has been banned since 1995.

# Fire protection systems

## a) Use Controls, Halons

ARTICLES  
4.1/4.4  
(iv) & (v)

Virgin halons cannot be used for refilling existing fire protection systems.

Recovered, recycled or reclaimed halons may only be used in existing fire protection systems until 31st December 2002. After this date systems cannot be refilled.

Mandatory decommissioning of fire protection systems and fire extinguishers containing halons must be carried out and completed before 31st December 2003.

The only exemption to the above is the use of halons in a limited number of "critical uses", for example, in certain military and aerospace applications. The critical uses are listed in Annex VII of the new EC Regulation.

## b) Recovery & Destruction

ARTICLE 16

All halons and other ODS contained in fire protection systems and fire extinguishers must be recovered during servicing and maintenance of equipment or prior to dismantling or disposal of equipment. Recovery must be for destruction by an environmentally acceptable technology. The only exemption to this rule is for reuse in the "critical uses" listed in Annex VII of the new EC Regulation.

## c) CBM (or Halon 1011)

ARTICLE 22

CBM is used as an explosion suppression agent and its supply and use are prohibited from 1st October 2000. Systems containing CBM can, however, continue to be used until they require refilling or topping up for any reason as the controls described in paragraph (a) above do not apply to this substance.

# Foams

## a) Use Controls - HCFCs

ARTICLE 5.1d

The only ODS now used in the foam blowing industry are HCFCs. The new EC Regulation prohibits the use of HCFCs for the production of all foams except rigid insulating foams and integral skin foams for use in safety applications. On top of this it introduces a series of product related bans that will **completely phase out the use of HCFCs in foam blowing by 1st January 2004**. The key steps in the phase out schedule are:

- From 1st October 2000 a ban on HCFCs for production of polyethylene rigid insulating foams and all integral skin foams for use in safety applications.
- From 1st January 2002 a ban on HCFCs for production of extruded polystyrene rigid insulating foams (except where used for insulated transport).
- From 1st January 2003 a ban on HCFCs for production of polyurethane foams for appliances, polyurethane flexible faced laminate foams and polyurethane sandwich panels (except where the latter two are used for insulated transport).
- From 1st January 2004 no foams can be manufactured using HCFCs. Hence at this date it will no longer be possible to use HCFCs for production of polyurethane spray or block foam, foam for insulated transport, remaining polyisocyanurate foams or phenolic foam.

## b) Recovery & Destruction

ARTICLE 16

The new EC Regulation calls for recovery of ODS from foams "if practicable". The recovered fluid must be destroyed or re-used (although, in most situations other aspects of the new EC Regulation would prevent re-use).

## Waste ODS

Waste ODS must be disposed of in a manner which does not harm human health or damage the environment. It is possible that some waste ODS may be "special waste" and so subject to more stringent disposal arrangements than most other wastes. Special rules also apply to their import and export. You should contact your local Environment Agency office for further information.

## Trade controls

The new EC Regulation includes a number of controls that apply to international trade outside of the EU. The trade controls apply to most ODS and all types of product and equipment containing them and are summarised below.

### a) Import of Most Controlled Substances

ARTICLE 7

The import of CFCs, halons, carbon tetrachloride, and 1,1,1 trichloroethane is prohibited except in three specific circumstances. These are (i) for essential uses, (ii) as a feedstock or processing agent and (iii) when the controlled substance is being imported to be destroyed.

ARTICLE 4.6

The import and placing on the market of products and equipment containing CFCs, halons, carbon tetrachloride, and 1,1,1 trichloroethane is prohibited except in three specific circumstances. These are (i) the import of products and equipment for essential uses, (ii) the import of products and equipment for critical uses of halons and (iii) the import of products and equipment that were manufactured before 30th September 2000.

### b) Import of HCFCs

ARTICLE 7

HCFCs can be imported within the strict quantitative limits defined in the EC Regulation, but only after an import licence has been granted by the European Commission.

ARTICLE 5.4

Products and equipment containing HCFCs can be imported until the relevant use control dates described in this booklet take effect. After those dates imports of products and equipment containing HCFCs are prohibited, unless the products were manufactured before the relevant use control date.

### **c) Export of Most Controlled Substances**

#### **Export of controlled substances**

ARTICLE 11

The export of CFCs, carbon tetrachloride, and 1,1,1 trichloroethane is prohibited from 1st October 2000 except those produced for (a) basic domestic needs of developing countries, (b) essential uses, or those used for feedstock or process agent applications. Export of bulk halons is also prohibited from that date.

#### **Export of products containing controlled substances**

ARTICLE 11

The export of products and equipment containing or using CFCs, carbon tetrachloride and 1,1,1 trichloroethane, is prohibited from 1st October 2000 except for essential uses. Products and equipment containing halon, however, may be exported to satisfy any of the critical uses listed in Annex VII of the new EC Regulation.

### **d) Export of HCFCs**

ARTICLE 5.5  
ARTICLE 11

The HCFC use controls described in this booklet do not apply to the use of HCFCs for the production of products for export to States Party to the Montreal Protocol where the use of HCFCs is still permitted, until 31st December 2009. After that date the export of products and equipment containing HCFCs is prohibited. Export of HCFCs to any State not party to the Montreal Protocol shall be prohibited from 1st January 2004.

ARTICLE 12

### **e) Export Authorisation**

Exporters of ODS will require an export authorisation from the European Commission for all exports from 1st January 2001.

## Articles in the new EC Regulation

Some readers will find it useful to know the structure of the new EC Regulation in order to locate key rules within the document. The main text of the Regulation consists of 7 Chapters, split into 24 Articles. There are also 7 Annexes. The table below summarises the structure of the most important parts of the Regulation.

Chapter	Article/s	Content
I	1,2	Introductory Provisions (Scope; definitions)
II	<b>Phase Out Schedule</b>	
	3	Control of production of controlled substances
	4	Control of placing on the market and use of controlled substances
	5	Control of use of HCFCs
III	6 - 15	Trade
IV	<b>Emission Control</b>	
	16	Recovery of used controlled substances
	17	Leakages of controlled substances
V	18 - 21	Committee, Reporting, Inspection and Penalties
VI	22	New Substances
VII	23, 24	Final Provisions
Annex I and II		Controlled substances covered
Annex III		Quantitative limits for producers and importers
Annex IV and V		CN codes for controlled substances and products
Annex VI		Processes using controlled substances as processing agents
Annex VII		Critical uses of halons

## Useful information

### Contacts

#### DTI

Environment Directorate  
151 Buckingham Palace Road  
London SW1W 9SS  
Tel: 020 7215 1018  
Fax: 020 7215 1691  
[www.dti.gov.uk](http://www.dti.gov.uk)

#### DETR

Global Atmosphere Division  
Floor 3/A3 Ashdown House  
123 Victoria Street  
London SW1E 6DE  
Tel: 020 7944 5233  
Fax: 020 7944 5219  
[www.detr.gov.uk](http://www.detr.gov.uk)

#### HALON USERS NATIONAL CONSORTIUM (HUNC) AND REFRIGERANT USERS GROUP (RUG)

Global House  
College Street  
Petersfield  
Hampshire GU31 4AD  
Tel: 01730 264 040  
Fax: 01730 269 042  
[www.hunc.org](http://www.hunc.org)

#### MINISTRY OF AGRICULTURE, FISHERIES AND FOOD (MAFF)

Horticulture & Potatoes Division  
Room 907  
Eastbury House  
30/34 Albert Embankment  
London SE1 7TL  
Tel: 020 7238 1030  
Fax: 020 7238 1072  
[www.maff.gov.uk](http://www.maff.gov.uk)

#### CUSTOMS AND EXCISE

For advice relating to shipments at specific UK ports, contact your local Customs and Excise Advice Centres. Details can be found in telephone directories.

#### ENVIRONMENT AGENCY

Head office public enquiries  
Tel: 01454 624 411  
Fax: 01454 624 014  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

To be put through to your local Environment Agency Office:  
Tel: 08459 333 111

### Other New DTI/DETR Publications

Guide to the Impact of New EC Ozone Regulations in:

- Fire Fighting Applications  
URN 00/1154
- Refrigeration and Air-Conditioning Applications  
URN 00/1156
- Solvent Applications including dry cleaning  
URN 00/1155

The above booklets can be ordered from EC Logistics by Fax: 0870 150 2333, Tel: 0870 150 2500 or email your requests to: [dtipubs@eclogistics.co.uk](mailto:dtipubs@eclogistics.co.uk)

### References to the EC Regulation

The full text of the EC Regulation can be obtained from the DETR and from the EU web site:  
<http://www.europa.eu.int/eur-lex/en/oj/index-list.html> (click on L244) which contains the electronic version of the full text of legislation in force. Electronic version also available from the DTI web site  
<http://www.dti.gov.uk/access/ozone.htm>

[www.dti.gov.uk/access/ozone.htm](http://www.dti.gov.uk/access/ozone.htm)

