

Memorandum D19-7-2  
Locator Code: 814A

**In Brief**

Ottawa, April 16, 1997

**SUBJECT**

**REQUIREMENTS CONCERNING THE IMPORTATION AND EXPORTATION OF  
OZONE-DEPLETING SUBSTANCES AND PRODUCTS**

1. Memorandum D19-7-2 has been updated to reflect *the Ozone-depleting Substances Regulations and the Ozone-depleting Substances Products Regulations*. These regulations replace *the Ozone-depleting Substances Regulations No. 1* (Chlorofluorocarbon) and *the Ozone-depleting Substances Regulations No. 3* (Products). The regulations were amended in an effort to make the requirements for producing, importing, and exporting ozone-depleting substances easier to understand.
2. In addition, Appendices A, B, and C have been added to this Memorandum.

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## SUBJECT

### REQUIREMENTS CONCERNING THE IMPORTATION AND EXPORTATION OF OZONE-DEPLETING SUBSTANCES AND PRODUCTS

Revenue Canada assists Environment Canada in administering the *Canadian Environmental Protection Act*, the *Ozone-Depleting Substances Regulations* and the *Ozone-Depleting Substances Products Regulations* established under that Act. This Memorandum outlines the requirements concerning the importation and exportation of ozone-depleting substances and products under these regulations.

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## **GUIDELINES AND GENERAL INFORMATION**

### **Definitions**

1. The following definitions are to be used in the application of this Memorandum:
  - (a) “controlled substance” means a substance set out in column II of an item of Schedule II of the *Ozone-Depleting Substances Regulations*, whether existing alone or in a mixture, and includes isomers of any such substance unless otherwise indicated (see the list of controlled substances in Appendix A);
  - (b) “*Ozone-Depleting Substances Regulations*” means Regulations established under the *Canadian Environmental Protection Act* respecting the manufacture, use, sell, offering for sale, import, or export of controlled substances;
  - (c) “*Ozone-Depleting Substances Products Regulations*” means Regulations established under the *Canadian Environmental Protection Act* respecting the manufacture, import, offering for sale, or sale of certain products made with or containing chlorofluorocarbons or bromofluorocarbons(halons);
  - (d) “Montreal Protocol” means the “Montreal Protocol on Substances that Deplete the Ozone Layer.” This is an international treaty that came into force on January 1, 1989, and is designed to prevent global environmental and health problems by setting out a schedule for reducing consumption of chlorofluorocarbons, bromofluorocarbons, methyl chloroform, carbon tetrachloride, methyl bromide, and hydrochlorofluorocarbons;
  - (e) “Party” means a country that is a signatory to the Montreal Protocol (see the list of signatory countries in Appendix B);
  - (f) “foaming agent” means any chemical that is added to any plastic during the process of manufacturing plastic foam so that small gas cells are formed throughout their plastic;
  - (g) “plastic foam” means a plastic the weight per unit of volume of which is decreased substantially by the use of a foaming agent during the manufacturing process.
  - (h) “reclaimed” in respect of a controlled substance, means recovered, re-processed, and upgraded through processes, such as filtering, drying, distillation, and chemical treatment in order to restore the controlled substance to industry-accepted reuse standards.
  - (i) “recovered” in respect of a controlled substance, means:
    - (1) collected after it has been used, or
    - (2) collected from machinery, equipment, or a container during servicing, or before disposal of the machinery, equipment or container.
  - (j) “recycled” in respect of a controlled substance, means recovered, cleaned by a process such as filtering or drying, and reused, including reused to recharge equipment.

### **Maintenance of Records**

2. Every importer and exporter of controlled substances is required to keep certain records and to report certain information to the Minister of the Environment. Importers and exporters should refer to the *Ozone-Depleting Substances Regulations* for the specific requirements. Revenue Canada does not maintain records on the importation and exportation of controlled substances.

### **Prohibited Importations of Ozone-Depleting Substances**

3. The *Ozone-Depleting Substances Regulations* prohibit the importation of controlled substances, other than:

- (a) by an importer authorized in accordance with these Regulations; and
- (b) from a party to the Montreal Protocol.

4. Common trade names for controlled substances such as chlorofluorocarbons (CFCs) include: Freon, Genetron, Genesolv, Isotron, Arcton, Frigen, Sercon, and Racon. The trade name is usually followed by the number 11, 12, 13, 113, 114, or 115 which identifies the type of CFC. Common refrigerant mixtures of CFCs are identified by the trade name followed by the numbers 500, 501 502, 503, and 504. Mixtures of CFCs with other chemicals are often identified by the trade name followed by certain letters and numbers such as Freon TF or Genesolv DE-35. (See Appendix C for additional scientific and trade names for controlled substances.)

5. The *Ozone-Depleting Substances Products Regulations* prohibit the importation of:

- (a) 10 kg or less of any CFC contained in a pressurized container;
- (b) any product in a pressurized container that contains 10 kg or less of any CFC;
- (c) any packaging material or container for food or beverages that is made of plastic foam in which any CFC has been used as a foaming agent; or
- (d) any of the following products that contain any chlorofluorocarbon or bromofluorocarbon from a place outside a party to the Montreal Protocol:
  - (1) mobile air-conditioning units, including units installed in vehicles or other means of transport;
  - (2) domestic and commercial refrigeration, air-conditioning and heat pump equipment;
  - (3) fire extinguishers;
  - (4) insulation boards and pipe covers;
  - (5) prepolymers, i.e., rubiflex resin, daltolac, instapak.

6. Examples of products which are subject to the *Ozone-Depleting Substances Products Regulations* are: small containers of refrigerant for servicing vehicle air conditioners; signal horns; dust-off sprays; cooling sprays containing any regulated CFC; mold release agents; cleaning solvents for electrical or electronic equipment; protective sprays for photographs; and lubricants in mining operations. For further information on products which may contain CFCs in contravention of the regulations, please refer to Appendix D to this Memorandum.

7. Non-commercial importations are those that are for the personal use and consumption of the importer. When these importations are controlled substances and products made with or containing CFCs, they are subject to the *Ozone-Depleting Substances Regulations* and the *Ozone-Depleting Substances Products Regulations*. As such, they will be detained by Revenue Canada and the nearest Environment Canada regional office outlined in Appendix E will be contacted.

### **Non-Prohibited Importations of Ozone-Depleting Products**

8. Subsection 4(3) of the *Ozone-Depleting Substances Products Regulations* provides that a person may import any product in a pressurized container that contains 10 kg or less of any CFC where the product is an animal or human health care product including any bronchial dilator, inhalable steroid, topical anaesthetic, and veterinary powder wound spray.

9. Certain types of CFCs are recognized as safe for use in pharmaceutical products. They are generally used as propellants in aerosol sprays, inhalation medicines, and foams. The CFCs are non-toxic and inert, and are therefore essential for use in health care products until suitable alternatives are approved for use. Generally, health care products can be identified by the DIN (Drug Identification Number) indicated on the container. Beauty care products such as hairspray and deodorant are not eligible for this exemption.

10. Subsection 4(2)(b) of the *Ozone-Depleting Substances Products Regulations* provides that a person may import 10 kg or less of a CFC contained in a pressurized container where the CFC is:

(a) in any of the following azeotropic mixtures:

- (1) refrigerant 500
- (2) refrigerant 501
- (3) refrigerant 502
- (4) refrigerant 503; or
- (5) refrigerant 504

(b) a recovered CFC that is sold to be recycled or reclaimed and that will be used as refrigerant.

11. Subsection 4(4) of the *Ozone-Depleting Substances Products Regulations* provides that a person may import:

(a) 10 kg or less of any CFC contained in a pressurized container, or

(b) any product in a pressurized container that contains 10 kg or less of any CFC

where the CFC or product is contained in a pressurized container of 3 litres or less and is to be used for laboratory or analytical purposes.

12. Subsection 6(2) of the *Ozone-Depleting Substances Products Regulations* provides that a person may import a product outlined in paragraph 5(d) of this Memorandum from a party outside the Montreal Protocol, provided the product is intended for the person's own use and is transported in a consignment of personal or household effects.

### **Responsibilities of Environment Canada and Revenue Canada in the Importation of Ozone-Depleting Substances and Products**

13. Environment Canada authorizes importers to import controlled substances and products outlined in paragraphs 10 and 11. Revenue Canada will request the written authorization prior to releasing the goods and will also ensure that:

(a) the authorization is addressed to a company;

(b) the authorization is signed by the Director, Commercial Chemicals Evaluation Branch, on behalf of the Minister of the Environment;

(c) an effective date is shown on the authorization;

(d) an authorization/allowance is granted for certain ozone depleting substances; and

(e) the shipment arrives within the effective date indicated in the written authorization.

14. If a customs inspector suspects a shipment is in violation of the *Ozone-Depleting Substances Regulations* or *Ozone-Depleting Substances Products Regulations*, the shipment will be detained and the nearest Environment Canada regional office outlined in Appendix E will be contacted immediately. A *Canadian Environmental Protection Act* (CEPA) inspector will verbally advise the customs inspector of the appropriate action to be taken, and follow-up immediately with written confirmation.

15. Environment Canada will provide the Revenue Canada office with the action to be taken on detained shipments within two hours of being notified of a detained shipment. The Federal-Provincial Portfolio of

the Partnerships and Strategic Planning Division in Ottawa is to be advised of situations where a CEPA inspector fails to provide the Revenue Canada office with the appropriate action to be taken. The address and telephone number for the Federal-Provincial Portfolio are contained in paragraph 24.

16. The customs inspector will record the name, title, and telephone number of that CEPA inspector who authorized the release of a detained shipment on the Revenue Canada office copy of the accounting document and will request written confirmation by mail or facsimile from Environment Canada.

17. If Environment Canada determines that a shipment must be detained for a lengthy period, officials of that department will have the shipment removed from Revenue Canada's premises within 24 hours of the time of notification, or at another time agreed to by both departments.

18. Environment Canada will be responsible for the disposal of shipments detained on its behalf by Revenue Canada.

### **Responsibilities of Environment Canada and Revenue Canada in the Exportation of Ozone-Depleting Substances and Products**

19. The exportation of controlled substances is prohibited, unless under authority of a permit issued by the Minister of the Environment. Products made with or containing CFCs or bromofluorocarbons can be exported.

20. Environment Canada is responsible for issuing permits for exporting controlled substances and any questions should be referred to the nearest Environment Canada regional office or to the Commercial Chemicals Evaluation Branch of Environment Canada indicated in paragraph 23 of this Memorandum.

### **Penalty Information**

21. The *Canadian Environmental Protection Act* provides penalties for failure to comply with that legislation. Any person who contravenes or fails to comply with Regulations made under the Act is guilty of an offence and is liable as follows:

(a) on summary conviction, to a fine not exceeding \$300,000 or to imprisonment for a term not exceeding six months, or to both; or

(b) on indictment, to a fine not exceeding \$1 million or to imprisonment for a term not exceeding three years, or to both.

22. The courts issue the penalty as well as assess the amount of penalty in accordance with the penalties specified in the *Canadian Environmental Protection Act*.

### **Additional Information**

23. Addresses and telephone numbers for the regional offices of Environment Canada can be found in Appendix E.

24. Questions concerning Revenue Canada's administration of this program should be directed to:

Admissibility Programs Division  
Operational Policy and Coordination Directorate  
Customs Branch  
Canada Customs and Revenue Agency

Telephone: (613) 954-7209

Facsimile: (613) 946-1520

## APPENDIX A

### LIST OF CONTROLLED SUBSTANCES

|   |            |
|---|------------|
| Tetrachloromethane (carbon tetrachloride)                                       |            |
| 1,1,1-trichloroethane (methyl chloroform), not including 1,1, 2-trichloroethane |            |
| Trichlorofluoromethane  | CFC-11     |
| Dichlorodifluoromethane   | CFC-12     |
| Trichlorotrifluoroethane  | CFC-113    |
| Dichlorotetrafluoroethane   | CFC-114    |
| Chloropentafluoroethane   | CFC-115    |
| Chlorotrifluoromethane  | CFC-13     |
| Pentachlorofluoroethane   | CFC-111    |
| Tetrachlorodifluoroethane   | CFC-112    |
| Heptachlorofluoropropane  | CFC-211    |
| Hexachlorodifluoropropane   | CFC-212    |
| Pentachlorotrifluoropropane   | CFC-213    |
| Tetrachlorotetrafluoropropane   | CFC-214    |
| Trichloropentafluoropropane   | CFC-215    |
| Dichlorohexafluoropropane   | CFC-216    |
| Chloroheptafluoropropane  | CFC-217    |
| Bromotrifluoromethane   | Halon-1301 |
| Bromochlorodifluoromethane  | Halon-1211 |
| Dibromotetrafluoroethane  | Halon-2402 |
| Methyl Bromide  |            |

#### Hydrochlorofluorocarbons:

|     |                                    |           |
|-----|------------------------------------|-----------|
| (a) | Dichlorofluoromethane              | HCFC-21   |
| (b) | Chlorodifluoromethane              | HCFC-22   |
| (c) | Chlorofluoromethane                | HCFC-31   |
| (d) | Tetrachlorofluoroethane            | HCFC-121  |
| (e) | Trichlorodifluoroethane            | HCFC-122  |
| (f) | 2,2-dichloro-1,1,1-trifluoroethane | HCFC-123  |
| (g) | 1,2-dichloro-1,1,2-trifluoroethane | HCFC-123a |
| (h) | 1,1-dichloro-1,2,2-trifluoroethane | HCFC-123b |
| (i) | 2-chloro-1,1,1,2-tetrafluoroethane | HCFC-124  |
| (j) | 1-chloro-1,1,2,2-tetrafluoroethane | HCFC-124a |

|               |   |            |
|---------------|---|------------|
| <i>(k)</i>    | Trichlorofluoroethane                     | HCFC-131   |
| <i>(l)</i>    | Dichlorodifluoroethane                    | HCFC-132   |
| <i>(m)</i>    | Chlorotrifluoroethane                     | HCFC-133   |
| <i>(n)</i>    | Dichlorofluoroethane                      | HCFC-141   |
| <i>(o)</i>    | 1,1-dichloro-1-fluoroethane               | HCFC-141b  |
| <i>(p)</i>    | Chlorodifluoroethane                      | HCFC-142   |
| <i>(q)</i>    | 1-chloro-1,1-difluoroethane               | HCFC-142b  |
| <i>(r)</i>    | Chlorofluoroethane                        | HCFC-151   |
| <i>(s)</i>    | Hexachlorofluoropropane                   | HCFC-221   |
| <i>(t)</i>    | Pentachloro-difluoropropane               | HCFC-222   |
| <i>(u)</i>    | Tetrachloro-trifluoropropane              | HCFC-223   |
| <i>(v)</i>    | Trichlorotetra-fluoropropane              | HCFC-224   |
| <i>(w)</i>    | Dichloropenta-fluoropropane               | HCFC-225   |
| <i>(x)</i>    | 1,1-dichloro-2,2,3,3,3-pentafluoropropane | HCFC-225ca |
| <i>(y)</i>    | 1,3-dichloro-1,2,2,3,3-pentafluoropropane | HCFC-225cb |
| <i>(z)</i>    | Chlorohexafluoropropane                   | HCFC-226   |
| <i>(z.1)</i>  | Pentachlorofluoropropane                  | HCFC-231   |
| <i>(z.2)</i>  | Tetrachloro-difluoropropane               | HCFC-232   |
| <i>(z.3)</i>  | Trichlorotri-fluoropropane                | HCFC-233   |
| <i>(z.4)</i>  | Dichlorotetra-fluoropropane               | HCFC-234   |
| <i>(z.5)</i>  | Chloropentafluoropropane                  | HCFC-235   |
| <i>(z.6)</i>  | Tetrachlorofluoropropane                  | HCFC-241   |
| <i>(z.7)</i>  | Trichlorodifluoropropane                  | HCFC-242   |
| <i>(z.8)</i>  | Dichlorotrifluoropropane                  | HCFC-243   |
| <i>(z.9)</i>  | Chlorotetrafluoropropane                  | HCFC-244   |
| <i>(z.10)</i> | Trichlorofluoropropane                    | HCFC-251   |
| <i>(z.11)</i> | Dichlorodifluoropropane                   | HCFC-252   |
| <i>(z.12)</i> | Chlorotrifluoropropane                    | HCFC-253   |
| <i>(z.13)</i> | Dichlorofluoropropane                     | HCFC-261   |
| <i>(z.14)</i> | Chlorodifluoropropane                     | HCFC-262   |
| <i>(z.15)</i> | Chlorofluoropropane                       | HCFC-271   |



**APPENDIX B**  
**(English Version)**

**PARTIES TO THE MONTREAL PROTOCOL**

|                          |                            |                              |
|--------------------------|----------------------------|------------------------------|
| Algeria                  | Greece                     | Niger                        |
| Antigua and Barbuda      | Grenada                    | Nigeria                      |
| Argentina                | Guatemala                  | Norway                       |
| Australia                | Guinea                     | Pakistan                     |
| Austria                  | Guyana                     | Panama                       |
| Bahamas                  | Honduras                   | Papua New Guinea             |
| Bahrain                  | Hungary                    | Paraguay                     |
| Bangladesh               | Iceland                    | Peru                         |
| Barbados                 | India                      | Philippines                  |
| Belarus                  | Indonesia                  | Poland                       |
| Belgium                  | Iran, Islamic Republic of  | Portugal                     |
| Benin                    | Ireland                    | Romania                      |
| Bolivia                  | Israel                     | Russian Federation           |
| Bosnia and Herzegovina   | Italy                      | Saint Kitts and Nevis        |
| Botswana                 | Jamaica                    | Saint Lucia                  |
| Brazil                   | Japan                      | Samoa                        |
| Brunei Darussalam        | Jordan                     | Saudia Arabia                |
| Bulgaria                 | Kenya                      | Senegal                      |
| Burkina Faso             | Kiribati                   | Seychelles                   |
| Cameroon                 | Korea, Democratic People's | Singapore                    |
| Canada                   | Republic of                | Slovakia                     |
| Central African Republic | Korea, Republic of         | Slovenia                     |
| Chad                     | Kuwait                     | Soloman Islands              |
| Chile                    | Latvia                     | South Africa                 |
| China                    | Lebanon                    | Spain                        |
| Colombia                 | Lesotho                    | Sri Lanka                    |
| Comoros                  | Libyan Arab Jamahiriya     | Sudan                        |
| Congo                    | Liechtenstein              | Swaziland                    |
| Costa Rica               | Lithuana                   | Sweden                       |
| Cote d'Ivoire            | Luxembourg                 | Switzerland                  |
| Croatia                  | Malawi                     | Syrian Arab Republic         |
| Cuba                     | Malaysia                   | Tanzania, United Republic of |
| Cyprus                   | Maldives                   | Thailand                     |
| Czech Republic           | Mali                       | The former Yugoslav          |
| Denmark                  | Malta                      | Republic of                  |
| Dominica                 | Marshall Islands           | Macedonia                    |
| Dominican Republic       | Mauritania                 | Togo                         |
| Ecuador                  | Mauritius                  | Trinidad and Tobago          |
| Egypt                    | Mexico                     | Tunisia                      |
| El Salvador              | Monaco                     | Turkey                       |
| Ethiopia                 | Morocco                    | Turkmenistan                 |
| Fiji                     | Mozambique                 | Tuvalu                       |
| Finland                  | Myanmar                    | Uganda                       |
| France                   | Namibia                    | Ukraine                      |
| Gabon                    | Nepal                      | United Arab Emirates         |
| Gambia                   | Netherlands                | United Kingdom               |
| Germany                  | New Zealand                | USA                          |
| Ghana                    | Nicaragua                  | Uruguay                      |

Uzbekistan  
Vanuatu  
Venezuela  
Viet Nam  
Yugoslavia  
Zaire  
Zambia  
Zimbabwe

## APPENDIX C

### SCIENTIFIC AND TRADE NAMES OF CONTROLLED SUBSTANCES

| Controlled Substances   | Chemical Names   | Trade Names   |
|---|--|---|
| Methyl chloroform C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> / | 1,1,1-trichloroethane, alpha-trichloromethane, trichloro-1,1,1 ethane, chlorothene, methyltrichloromethane, trichloroethane, methyl chloroform | 1,1,1-TCE<br>1,1,1-TCE<br>3190 Taperaser Thinner (1, 2, 3, and 4)<br>3190 Thinner<br>617X2<br>A13-02061<br>Aerosol Liquid Buffer<br>Aerothene MM<br>Aerothene TT<br>Alpha-T<br>Ardrox 8PR551 Penetrant Remover and Cleaner<br>Asahitriethane<br>B-70 Nettoyeur dégraisseur<br>Baltana<br>Belzona Molecular N.F. Cleaner/Degreaser<br>C078 Helmitin Solvant<br>Carter's Instant Type Cleaner<br>Caswell no 875<br>CF2<br>CFC140a<br>CG Triethane<br>Chloratex nettoyeur 708<br>Chlorethene B70<br>Chloroethane-NU, Chlorethene<br>Chlorothane<br>Chlorothene<br>Chlorothene 817X2<br>Chlortane NU<br>Chlorten Inhibisol<br>Chlorten<br>Cleaner C-678<br>Conveyor Belt Repair Kit<br>Cleaner<br>DE #10320<br>DE-10320<br>DE-414<br>Diluant 111<br>Dowclene LS<br>Dry Cleaning Fluid<br>Dry Cleaning Solvent<br>Drysol |

**Controlled Substances**

Methyl chloroform  
C<sub>2</sub>H<sub>3</sub>Cl<sub>3</sub> – con.

**Chemical Names****Trade Names**

Elecsolv  
EPA Pesticide Chemical Code  
Ethane  
F140a  
Fabrisol 55  
Flex 80 Cleaner  
Fluorocarbon 140a  
Freon 140a  
Genklené  
H&M Clean  
Helmitin Solvant C678  
ICI-CF2  
K1144 Ultra Sol  
K120 N.F.S. Solvant  
inflammable  
K120 Solvent  
K120  
K7 FC-700 nettoyeur pour tissus  
Keykleen 503  
Kodak Movie Film Cleaner  
Konden Triéthane  
Laser Dry Spot Liquid Buffer  
Loctite Safety Solvent  
Loctite 75559  
MCF  
Methyl Chloroform Technical  
Molecular N.F.  
Cleaner/Degreaser  
MS-170 1,1,1-Trichloroethane  
Solvent  
NCI-C04626  
Nettoie-caractères inst. C80820  
Nettoie-touches de dactylo  
Carters cat  
# C90820  
Nettoyant B-70  
Nettoyeur contact # 1328 Krylon  
Nettoyant B70  
Nettoyant H et M  
Nettoyant à tissus  
P128 Laser  
Picrin  
Propaklone  
R140a  
RCRA Waste Number 226  
Roberts 931 Seaming Adhesive  
Solvent

**Controlled Substances**

Methyl chloroform  
C<sub>2</sub>H<sub>3</sub>Cl<sub>3</sub> – con.

**Chemical Names****Trade Names**

Safety Solvent 75563  
Safety Solvent 755-71  
Safety Solvent (Aerosol) 75-563  
Safety Solvent # 75559  
Safety Solvent (Aerosol) 755-59  
Sanfax Pick-One  
Shine Pearl  
Solvant 111  
Solvant Dielectrique  
Solvent sécuritaire Electosolv  
Solvethane  
Spotcheck Cleaner SCK-NF  
(Liquide)  
Spotcheck Cleaner Remover  
Formula B SKC-NF  
Spotchek Cleaner/Remover  
(SKF-NF)  
Stanchem Tri-Ethane 3235  
Stripalane 416 Class 61  
Stripalene 416  
Strobane  
Super 111  
Super Spray Cleaner Crystal 180  
Tafclean  
TCEA  
Thinner 111  
Three One  
Toyoclean  
TRI  
Tri-Ethane  
Triethane 3235  
Triethane P.P.G.  
Triéthane  
TUX-7230 1,1,1-Trichlorethane  
Ultra Sol K1144  
UN2831  
Unican DME  
Vol  
Vol 8748  
Vythene  
Vythene Safety Solvant  
Wax solvent 83

| <b>Controlled Substances</b>              | <b>Chemical Names</b>   | <b>Trade Names</b>  |
|---|---|---|
| Carbon Tetrachloride CCl <sub>4</sub>     | Tetrachloromethane,<br>perchloromethane, methane<br>tetrachloro, carbon tetrachloride                           | Benзиноform<br>Carbon Tetrachloride Petro-<br>Canada<br>Carbon Tetrachloride Fisher<br>Carbon Tet<br>Carbon Tetrachloride Vulcan<br>Carbona<br>CDX-1180 Tetrachlorure de<br>Carbone<br>CFC10<br>Chloride Uhllicity<br>Chlorure de Carbone<br>Didakol<br>Ent 4,705<br>Ent 27164<br>F(-)10<br>Fasciolin<br>Flukoids<br>Fréon 10<br>Halon 1040<br>Halon 1.040<br>Halon 1.04<br>Methane Tetrachloride<br>Necatorina<br>Necatorine<br>R(-)10<br>Sérétine<br>Tetrachlorure de carbone ACS<br>Tetrachlorure de carbon<br>AC-2060T<br>Tétrazol<br>UN1846<br>Univerm<br>Vermoestricid (1, 2, 3, and 4) |
| Trichlorofluoromethane CCl <sub>3</sub> F | CFC-11, Fluorochloroform,<br>trichloromethylfluoride,<br>trichloromonofluoromethane,<br>trichlorofluorocarbon / | Arcton 11<br>Freon 11<br>Fluorocarbon 11<br>F11<br>FC11<br>FKW 11<br>Frigen 11<br>Frigon 11<br>Halocarbon 11<br>Halon 11<br>Propellant 11<br>R11<br>Refrigerant 11<br>Ucon 11   |

**Controlled Substances**

Trichlorofluoromethane  
CCl<sub>3</sub>F – con.

**Chemical Names****Trade Names**

Dichlorodifluoromethane CCl<sub>2</sub>F<sub>2</sub>

CFC-12, Carbon dichloride  
difluoride, chlorofluorocarbon  
12, difluorodichloromethane,  
methane dichlorodifluoro

Algofrene type 1  
Arcton 9  
Asahifron 11  
CFC(-)11  
Daiflon S1  
Daiflon 11  
Electro-CF  
Eskimon 11  
Fréon MF  
Fréon 11B  
Frigen 11  
Frigen 11A  
Frigen s 11  
Fron 11  
Gaz Fréon 11x50  
Gaz Fréon 11x50NR  
Genetron 11  
Genetron 11SBA  
Halocarbure 11  
Isceon 131  
Isotron 11  
Kaltron 11  
Khladon  
Khladon 11  
Ledon 11  
Niax-11  
Ucon T1 (1, 2, and 3)

Accuduster TX110  
Accuduster TX1210  
Aerosal Dust Remover  
Algofrene Type 2  
Arcton 12  
Arcton 6  
Artong  
Benetron 12  
Blow-Off # 1668-15S  
CF12  
CFC-12  
Chlorofluorocarbon 12  
Circuit Freeze  
Circuit Refrigerant PH100-20  
Circuit Refrigerant PH100-14  
Cryoquick  
Dust Remover ABSCO  
Dust Eliminator Optex

**Controlled Substances**

Dichlorodifluoromethane  
CCl<sub>2</sub>F<sub>2</sub> – con.

**Chemical Names****Trade Names**

Electro-CF 12  
Enviro-tech 1668  
Eskimon 12  
Extra Dry Super Mist 10-702  
F12  
Fast Freeze  
FC12  
FCC-12  
Fifty Below (model 9108) aerosol  
FKW 12  
Forane 12  
Freez-it Anti-Stat, Fluorcarbon  
12  
Freeze-It  
Fréon R-12  
Freon-12  
Frigen 12  
Frigon 12  
Fron 12  
GC 10-702  
Genetron 12  
Halocarbon 12  
Halocarbura 12  
Halon 122.0  
Halon 122  
Isceon 122  
Isotron 12  
Isotron 2  
K12  
Kaiser Chemical 12  
Khladon 12  
Ledon 12  
Microduster TX600  
Microduster TX104a  
Microduster TX104  
Minus 62 Instant Chiller # 1669-  
16S  
MS-240 Quick-Freeze  
Niax Blowing Agent 12  
Niax 12  
Nicer'n ice 99900403  
Precision Duster  
Precision Duster Non-Liquid  
Cleaner 1668  
Propellant 12  
Propulseur 12  
Quick Freeze Shandon



**Controlled Substances**

Dichlorodifluoromethane  
CCl<sub>2</sub>F<sub>2</sub> – con.

**Chemical Names**

CFC-113,  
chlorotrifluoromethane,  
monochlorotrifluoromethane

**Trade Names**

R12  
Refrigerant 12  
Refrigerant/Aerosol MS-240  
Rolyen Cold Spray  
Super Freeze Mist 10-8668  
Super Frost Aid 1550  
Super Freeze Mist 10-8668-24  
Techclean Precision Duster 1668-15S  
Techclean Precision Duster 1668-3S  
Technigraphic Dust  
Ucon 12  
Un1028

Trichlorotrifluoromethane  
CCl<sub>2</sub>F-CClF<sub>2</sub>

AC-9400  
Aerosol R-O  
Aerosol Magnetic Head Cleaner  
HP PN5080-3605  
Arcton 113  
Arcton 63  
Arkalone P  
Arklone P C.I.L.  
Asahifron 113  
CFC(-)113  
CG Triflon  
Chesterton Contact Cleaner  
Chlorofluorocarbon C-113  
Daiflon S3  
Daiflon 113  
Delifrane  
Diaflon S3  
Electro Contact Cleaner  
F113  
FC113  
Fion Showa Solvent  
Flugen  
Fluorisol  
Fluorocarbon(-)113  
Forane 113  
Freon PCA  
Freon 13  
Freon TF  
Freon 113  
Freon TF Solvent  
Fréon 113  
Fridohne  
Frigen 113TR-A

**Controlled Substances**

Trichlorotrifluoromethane  
CCl<sub>2</sub>F-CClF<sub>2</sub> – con.

**Chemical Names**

Dichlorotetrafluoroethane CClF<sub>2</sub>-  
CClF<sub>2</sub>

CFC-114, Sym-  
dichlorotetrafluoroethane,  
tetrafluorodichloroethane

**Trade Names**

Frigen 113  
Frigen 113A  
Frigen 113TR-N  
Fron 113  
Fronsolve  
Fronsolve 113  
Genesolve  
Genetron D Solvent  
Genetron 226  
Genetron 113  
Halocarbon 113  
Halocarbure 113  
Halon 2.330  
Halon 233  
HP PN 5080-3605  
Instant VTR/VCR Cleaner 1683  
Instant FD Cleaner 1638-1G  
Isceon 113  
Kaltron  
Khladon 113  
Ledon 113  
Magidry  
MS-180 NR.226 Electro Contact  
Cleaner  
Nanofron  
Nettoyeur à contact NR226  
Chesterton  
# 82501  
P 113  
R-113  
Refrigerant 113  
TCTFE  
TF Non Aerosol Cleaner  
TTE  
TUX-7250 1, 1,2-Trichlorotri-  
fluoroethane  
Ucon 113

Arcton 33  
Arcton 114  
CFC114  
Cryofluorane  
Cryofluroran  
F-114  
FC-114  
FKM 114

**Controlled Substances**

Dichlorotetrafluoroethane  
CICF<sub>2</sub>-CCIF<sub>2</sub> – con.

**Chemical Names**

CFC-115,  
monochloropentafluoroethane,  
pentafluoroethylchloride,  
perfluoroethyl chloride

**Trade Names**

FKW 114  
Fluorane 114  
Fluorocarbon 114  
Forane 114  
Freon 114  
Frigen 114  
Frigiderm  
Fron 114  
Genetron 114  
Genetron 316  
Halocarbon 114  
Halocarbure 114  
Halon 242  
Halon 2.420  
Isotron 114  
Ledon 114  
Propellant 114  
Propulseur 114  
R(-)114  
R-14  
Refrigerant 114  
Ucon Halocarbon 114 (1 and 2)  
Ucon 114

Chloropentafluoroethane  
CCIF<sub>2</sub>-CF<sub>3</sub>

Arcton 115  
CFC115  
F-115  
FC115  
FKW 115  
Fluorocarbon 115  
Forane 115  
Freon 115  
Genetron 115  
Halocarbon 115  
Halocarbure 115  
Halon 251  
Halon 2.510  
Propellant 115  
Propulseur 115  
R-115  
Refrigerant 115 (1 and 2)

| <b>Controlled Substances</b>                         | <b>Chemical Names</b>  | <b>Trade Names</b>  |
|--|--|---|
| Bromochlorodifluoromethane<br>CF <sub>2</sub> BrCl / | Halon 1211,<br>Chlorobromodifluoromethane,<br>Chlorodifluorobromomethane,<br>Difluorochlorobromomethane    | BCF Fire Extinguisher Halon<br>1211<br>CFC-12B1<br>Chlorofluorocarbure 12B1<br>F-12B1<br>Fire Extinguisher Flugex 12B1<br>Fluorocarbone 1211<br>Fluorocarbon 12B1<br>Freon 12B1<br>Halocarbon 12B1<br>Halon 1.211<br>Halon 1211<br>Halon 1.122<br>UN 1974 (1 and 2)   |
| Bromotrifluoromethane CBrF <sub>3</sub>              | Halon 1301, Bromofluoroform,<br>Carbon monobromide<br>trifluoride, Trifluoromethyl<br>bromide              | CFC-13B1<br>Daiflon 13B1<br>F-3B1<br>FC13B1<br>FKWR 13B1<br>Flugex 13B1<br>Fluorocarbon 1301<br>Fluorocarbon 13B1<br>Freon 13B1<br>Halocarbon 13B1<br>Halocarbure 13B1<br>Halon 1301<br>Halon 1.301<br>Khladon 13B1<br>R-13B1<br>Refrigerant 13B1<br>UN1009 (1 and 2) |
| Methyl bromide                                       | methylbromide, bromomethane,<br>methane, bromo, methyl bromide,<br>methyl monobromide,<br>monobromomethane | CFC(-)40B<br>Embafume<br>F(-)40B<br>Fluorocarbon(-)40B<br>Freon 40B<br>Halon 1.001<br>Halon(-)1001<br>Halon # 1001<br>R(-)40B<br>UN1062, (1, 2, 3)  |

| <b>Controlled Substances</b>                                      | <b>Chemical Names</b>  | <b>Trade Names</b>  |
|---|--|---|
| Dibromotetrafluoroethane<br>CF <sub>2</sub> Br-Cf <sub>2</sub> Br | Dibromo-tetrafluoroethane,<br>dibromotetrafluoroethane,<br>1,2-dibromotetrafluoroethane,<br>Sym-dibromotetrafluoroethane | Arcton 114B2<br>CFC-114B2<br>Daiflon 114B2<br>F-114B2<br>FC-114B2<br>Fluobrene<br>Fluorocarbon 114B2<br>Freon 114B2<br>Halon(-)2402<br>Khladon 114B2<br>R-114B2 (1 and 2) |

There are also azeotropic mixtures that contain CFCs. These azeotropic mixtures, with the exception of azeotropic mixture 503, are exempt from the *Ozone-depleting Substances Products Regulations* (meaning that pressurized containers containing these mixtures are not regulated by the *Ozone-Depleting Substances Products Regulations*), but they are regulated by the *Ozone-Depleting Substances Regulations* (meaning that an importer must have an authorization to import

|                 |  |  |
|-----------------|--|--|
| Refrigerant 500 | 73.8% Dichlorodifluoromethane (CFC-12) 26.2% 1,1-difluoroethane (HFC-152a)                 | Azeotrope 500<br>CFC-500<br>F-500<br>Fluorocarbon 500<br>Freon 500<br>Frigorigène 500<br>Genetron 500<br>Genetron 500 azeotrope<br>R500<br>Refrigerant 500 (1, 2, 3, 4)  |
| Refrigerant 501 | 75% chlorofluoromethane (HCFC-22) 25% dichlorodifluoromethane (CFC-12)                     | R501   |
| Refrigerant 502 | 48.8% chlorodifluoromethane (HCFC-22) 51.2% 1-chloro-1,1,2,2,2-pentafluoroethane (CFC-115) | Azeotrope 502<br>CFC-502<br>F-502<br>Fluorocarbon 502<br>Freon 502<br>Frigorigène 502<br>Genetron 502<br>Genetron 502 azeotrope<br>R-502<br>Refrigerant 502 (1, 2, 3, 4) |

|                 |  |      |
|-----------------|--|------|
| Refrigerant 503 | 60% chlorotrifluoromethane<br>(CFC-13) 40% trifluoro methane             | R503 |
| Refrigerant 504 | 52% chloropentafluoroethane<br>(CFC-115) 48% difluoromethane<br>(HFC-32) | R504 |

## **APPENDIX D**

### **PRODUCTS WHICH MAY CONTAIN CHLOROFLUOROCARBONS IN CONTRAVENTION OF THE *OZONE-DEPLETING SUBSTANCES* *PRODUCTS REGULATIONS***

#### **Automotive Air Conditioning Refill Kits**

Small containers of refrigerants used to recharge automobile air-conditioning units contain about 340 grams of CFC-12. They are sold to auto dealers, repair shops and, through retail outlets, to the public.

#### **Signal Horns**

Signal horns operate by using a pressurized gas. They are sold through safety supply companies for use by workers in hazardous locations such as isolated spaces, factory floors, and docking yards. Signal horns are also sold through boating supply companies as emergency boat or fog horns. Pocket- and purse-size devices are sold at the retail level as personal distress signals and for protection against threatening animals.

#### **Dust-Off Sprays**

Dust-off sprays provide a gentle stream of gas to blow dust and other contaminants off fragile surfaces such as optical lenses, mirrors, film negatives, polished metal surfaces, art work, and electrical and electronic components. The product is sold in standard aerosol spray cans. Dust-off sprays have many uses, and are sold through scientific, laboratory, and medical supply companies; art supply stores; camera, photographic, and optical equipment supply companies; electrical and electronic supply companies; hobby shops; audio and video retail and service shops; and computer stores.

#### **Cooling Sprays**

Cooling sprays provide a freezing spray of gas and are sold in aerosol cans. Cooling sprays provide a clean, portable, and compact source of temporary cooling. They are used in the electronics industry, the research field, and in the assembly of shrink fit machine parts. Cooling sprays are sold through electrical, electronic, and scientific supply companies.

#### **Aerosol Spray Cans**

Some products in an aerosol spray can, such as deodorants, hair sprays, and antiperspirants, may use CFCs as a propellant or as a slurring agent.

#### **Mold Release Agents**

Mold release agents are lubricants which are applied to the surface of molds before injection of plastic or elastomeric material. Mold release agents are packaged in aerosol spray cans. This product is a specialty item sold primarily to commercial users.

### **Cleaning Solvents for Electrical or Electronic Equipment**

CFCs are used extensively in the electronics industry as a cleaning solvent. It is sometimes packaged in pressurized aerosol spray cans and sold as a cleaner for electrical and electronic equipment, audio and visual service, and optical devices.

### **Protective Sprays for Photographs**

Sometimes, placing a photographic print or a film negative against a glass surface can produce a rainbow effect. To prevent this, the print or the negative is sprayed with a protective coating which separates the film from the glass just enough to prevent the effect. A CFC propellant is considered essential because it provides a very fine and uniform aerosol and because it does not react with the photographic emulsion.

### **Lubricants in Mining Operations**

Lubricants have been developed to safeguard open gears, cables, and wire ropes on large machinery for use in mining operations. CFC propellants are essential in this application because they are non-flammable and the CFCs are generally recognized to be non-toxic. In the interests of occupational safety, lubricants may be imported for use in either open pit or underground mining operations.

**Note:** Products using HCFC-22, chlorodifluoromethane, are not regulated. The contents of the product should be listed on the label or on a Material Safety Data Sheet, which may accompany the shipment.



## **APPENDIX E**

### **ENVIRONMENT CANADA REGIONAL OFFICES**

#### **Atlantic Region (except Newfoundland)**

(Nova Scotia, New Brunswick, Prince Edward Island)

Environmental Protection  
Atlantic Region  
16th floor  
Queen Square  
45 Alderney Drive  
Dartmouth NS B2Y 2N6

Telephone: (902) 426-1925 (during working hours)  
(902) 426-3593 (during working hours)  
Facsimile: (902) 426-9709

#### **Newfoundland**

Environmental Protection  
P.O. Box 5037  
St. John's NF A1C 5V3

Telephone: (709) 772-2065  
Facsimile: (709) 772-5097

#### **Quebec Region**

Environmental Protection  
1179 de Bleury Street  
Montréal QC H3B 3H9

Telephone: (514) 283-4670 (during working hours)  
Facsimile: (514) 283-4423

#### **Ontario Region**

Environmental Contaminants and  
Nuclear Programs Division  
Environmental Protection  
Ontario Region  
4905 Dufferin Street  
Downsview ON M5H 5T4

Facsimile: (416) 739-4405

#### **Prairie and Northern Region**

(Manitoba, Saskatchewan, Alberta, Northwest Territories)

**Alberta Division**

Environmental Protection  
Room 200  
4999-98th Avenue  
Edmonton AB T6B 2X3  
Facsimile: (403) 495-4099

**Saskatchewan Division**

Environmental Protection  
Room 300  
Park Plaza  
2365 Albert Street  
Regina SK S4P 4K1  
Facsimile: (306) 780-6466

**Manitoba Division**

Environmental Protection  
5th floor  
Federal Building  
269 Main Street  
Winnipeg MB R3C 1B2  
Facsimile: (204) 983-0960

**Northern Division**

Environmental Protection  
Suite 301, 5204-50th Avenue  
Yellowknife NT X1A 1E2  
Telephone: (403) 920-6051 (during working hours)  
Facsimile: (403) 873-8185

**Pacific and Yukon Region**

**British Columbia**

Environmental Protection  
224 West Esplanade  
North Vancouver BC V7M 3H7  
Facsimile: (604) 666-1140

**Yukon District Office**

Environmental Protection  
100 Hamilton Boulevard  
Whitehorse YT Y1A 5L7  
Facsimile: (403) 667-7962

## REFERENCES

### ISSUING OFFICE

Transportation Division

### LEGISLATIVE REFERENCES

*Canadian Environmental Protection Act*  
*Ozone-Depleting Substances Regulations*  
*Ozone-Depleting Substances Products Regulations*

### HEADQUARTERS FILE

7620-12

### SUPERSEDED MEMORANDA "D"

D19-7-2, May 22, 1992

### OTHER REFERENCES

N/A