# Requirements Concerning the Importation and Exportation of Ozone-depleting Substances and Halocarbon Alternatives and certain Products Containing or Designed to Contain these Substances

#### In Brief

- 1. This memorandum has been updated to reflect requirements under the <u>Ozone-depleting Substances and Halocarbon Alternatives Regulations</u>, including the amendment that came into force on April 16, 2018. Main revisions to this memorandum include:
  - a) the introduction of an allowance system for hydrofluorocarbons (HFCs);
  - b) the introduction of a prohibition on the import and manufacture of certain products containing or designed to contain HFCs; and
  - c) minor modifications on hydrochlorofluorocarbons (HCFCs).
- 2. The Ozone-depleting substances and Halocarbon Alternatives Regulations implement Canada's obligations under the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol). The Montreal Protocol is an international agreement to control the production and consumption of certain ozone-depleting substances (ODS) as well as HFCs, which are halocarbon alternatives (HA), under the Kigali Amendment to the Montreal Protocol. The Montreal Protocol benefits from universal ratification. The Regulations are intended to phase out the production and consumption of ozone-depleting substances and to phase down HFCs, which allows Canada to meet its obligations under the Montreal Protocol and reduce the threats to human health and environment from the impact of ozone-depleting substances and of HFCs which have global warming potential.
- 3. Under the Kigali Amendment to the Montreal Protocol, which Canada ratified and which comes into force on January 1, 2019, Canada must gradually reduce its HFC consumption in accordance with a specific schedule.
- 4. This memorandum provides guidelines concerning the importation and exportation of ozone-depleting substances (ODS) and HFCs, and certain products containing or designed to contain ODS or HFCs. It relates directly to the supportive role the Canada Border Services Agency (CBSA) plays in assisting <a href="Environment and Climate Change Canada">Environment and Climate Change Canada</a> (ECCC) in administering the <a href="Canadian Environmental Protection Act">Canadian Environmental Protection Act</a>, 1999 and the <a href="Ozone-depleting substances and Halocarbon Alternatives Regulations">Ozone-depleting substances and Halocarbon Alternatives Regulations</a> (SOR/2016-137).
- 5. This memorandum does not amend or supersede the relevant legislation and/or regulations. In case of any inconsistencies between this memorandum and the legislative or regulatory provisions, the legislation or regulations will prevail.

# Legislation

<u>Canada Border Services Agency Act</u> - Paragraphs 5(1) and 5(2)

Customs Act – Sections 12, 95, 99, 101, and 107

Reporting of Exported Goods Regulations – Paragraph 5(1)

Ozone-depleting Substances and Halocarbons Alternatives Regulations – Paragraphs 74 (3) and (4).

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#### **Definitions**

1. The following may not be the definitions from the <u>Ozone-depleting Substances and Halocarbons Alternatives</u> <u>Regulations</u> (ODSHAR) but are to be used as a guide in the application of this memorandum.

#### Act

Means the Canadian Environmental Protection Act, 1999.

#### **Consumption Allowance**

Means a written authorization, issued by Environment and Climate Change Canada, to import or manufacture a specific quantity of hydrochlorofluorocarbons (HCFCs) or hydrofluorocarbons (HFCs).

#### **CFC**

Means a chlorofluorocarbon.

## Consumption

Quantity manufactured + quantity imported - quantity exported.

#### Critical use

Means a use of methyl bromide that conforms to Decision IX/6 set out in the document entitled *Report of the Ninth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, published by the Ozone Secretariat, United Nations Environment Programme.

#### **Decision**

Means a decision adopted at a meeting of the Parties held under Article 11 of the Protocol.

#### **Emergency use**

Means a use of up to 20 tonnes of methyl bromide, in response to an emergency event, that conforms to Decision IX/6 set out in the document entitled *Report of the Ninth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, published by the Ozone Secretariat, United Nations Environment Programme.

#### **Essential purpose**

Means a purpose requiring the use of a substance or a product containing or designed to contain a substance, when that use is necessary for the health and safety or the good functioning of society, encompassing its cultural and intellectual aspects, and when there are no technically or economically feasible alternatives to that use that are acceptable from the standpoint of the environment and of health.

#### **Feedstock**

Means a substance that is used - and the molecular structure of which is transformed - in the manufacture of a chemical substance.

#### Foaming agent

Means a chemical that is added to a plastic during the process of manufacturing plastic foam so that gas cells are formed throughout the plastic.

#### **HBFC**

Means a hydrobromofluorocarbon.

#### **HCFC**

Means a hydrochlorofluorocarbon.

#### Heel

Means, with respect to a controlled substance, the quantity of a substance that is left in a container after it has been emptied and that does not exceed 10% of the total capacity in weight of the container for that substance.

#### **HFC**

Means a hydrofluorocarbon.

#### Laboratory or analytical use

Means a use that is agreed to be a laboratory or analytical use through a Decision of the Parties.

#### Ozone-depleting Substances and Halocarbons Alternatives Regulation (ODSHAR)

Means the regulations established under the *Canadian Environmental Protection Act*, 1999 respecting the manufacture, transit, use, sale, import, or export of controlled substances and certain products containing or designed to contain controlled substances.

#### **Party**

Means a State that has ratified the Protocol or that meets the conditions referred to in paragraph 8 of Article 4 of the Protocol.

#### **Permit**

Means a written authorization, issued by Environment and Climate Change Canada, that is required in specific circumstances established by the ODSHAR prior to importation or exportation of ODSs or HFCs and prior to the exportation of prescribed products to <u>countries categorized as operating under Article 5 paragraph 1</u> of the Montreal Protocol (considered as developing countries).

#### 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.

#### Product containing or designed to contain an ODS or an HFC:

- a) If a controlled substance is present in a mixture as a carrier or to increase the effectiveness of the mixture (e.g. stabilizer, flash point suppressant, boiling point elevator, solvent for the other ingredient, propellant, etc.) and is not an active ingredient for the application, the mixture is considered to be a product containing an ODS or an HFC; or
- b) If the container is used to transport or store the ODSs or HFCs and is also an integral part of the use, the container and its contents are considered a product containing or designed to contain an ODS or an HFC; or
- c) If the mixture is a polyalcohol (polyol), this mixture is considered as a pre-polymer and, as a result, a product containing an ODS or an HFC. <u>Appendix C</u> provides an explanation. Note that <u>Appendix C</u> also provides examples of products containing or designed to contain ODS or HFCs.
- d) Examples of products covered by the ODSHAR and that can contain or can be designed to contain an ODS or HFCs also include refrigeration and air conditioning equipment (including in automobiles), plastic and rigid foams, aerosols (where the ODS or HFC is used as a propellant).

#### **Prohibited**

Means not allowed, and banned.

#### **Protocol**

Means the *Montreal Protocol on substances that Deplete the Ozone Layer*, published by the United Nations Environment Programme and signed by Canada on September 16, 1987, in its most recent version.

#### Reclaimed

Means, in respect of a substance, recovered and then reprocessed and upgraded through a process such as filtering, drying, distillation or chemical treatment to restore the substance to industry-accepted reuse standards.

#### Recovered

Means, in respect of a substance, used and subsequently collected.

#### Recycled

Means, in respect of a substance, recovered, cleaned through a process such as filtering or drying and reused, including reused to recharge equipment.

#### Rigid foam product

Means a product containing or consisting of any of the following types of foam:

- *a)* closed-cell rigid polyurethane foam, including one- and two-component froth, pour, spray, injected or bead-applied foam and polyisocyanurate foam;
- b) closed-cell rigid polystyrene boardstock foam;
- c) closed-cell rigid phenolic foam;
- d) closed-cell rigid polyethylene foam that is suitable in shape, thickness and design to be used as a product that provides thermal insulation in heating, plumbing or refrigeration systems or industrial processes.

#### Transfer of Allowance

Is a written authorization issued by Environment and Climate Change Canada approving the transfer of all or part of an HCFC or HFC consumption allowance from the original consumption allowance holder to another person.

#### **Transit**

Means transit through Canada from a place outside Canada to another place outside Canada, or where the substance is in transit through another country from a place in Canada to another place in Canada, where:

- a) the address of the destination is known at the time of import into or export from Canada, as applicable; and
- b) while in transit, the controlled substance is not stored other than in the normal course of transport, repackaged, sorted or otherwise changed in condition or sold.

## **Import and Export Requirements**

# CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane

- 2. Generally, the import and export of CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane are prohibited except in specific circumstances.
- 3. Please refer to Table 1 of Schedule 1 of the <u>Ozone-depleting Substances and Halocarbon Alternatives</u>
  <u>Regulations</u> for the list of these substances and to <u>Appendix A</u> and <u>Appendix B</u> for the list of common/trade names and their classification.

## **Export**

## Written Authorization/Permit is Required

- 4. The export of these substances is allowed only on the condition that a copy of a valid permit (please refer to <a href="Appendix D">Appendix D</a> to see a sample of a permit) issued by ECCC is presented to the CBSA, at the export reporting office located closest to the place of exit of the goods from Canada .ECCC will only issue a permit for export for the following purposes:
  - a) its destruction [ODSHAR, Paragraph 6(1)(a)];
  - b) its disposal if the substance was imported by mistake [ODSHAR, Paragraph 6(1)(b)];
  - c) a use set out in column 3 of <u>Table 1 of Schedule 1 of the ODSHAR</u> if the substance was manufactured or imported for a use set out in that column [ODSHAR, Paragraph 6(1)(c)];
  - d) its reclamation, if the substance is a CFC, a bromofluorocarbon or bromochlorodifluoromethane that is recovered, recycled or reclaimed [ODSHAR, Paragraph 6(1)(d)];

- e) any other purpose that complies with the laws of the importing Party if the substance is a CFC, a bromofluorocarbon or bromochlorodifluoromethane [ODSHAR, Paragraph 6(1)(e)];
- f) any purpose if any of the following substances are recovered, recycled or reclaimed:
  - (i) bromochloromethane [ODSHAR, Paragraph 6(2)(a)];
  - (ii) an HBFC [ODSHAR, Paragraph 6(2)(b)];
- g) any reclaimed CFC, tetrachloromethane or 1,1,1-trichloroethane [ODSHAR, Paragraph 6(2)(c)].
- 5. A permit is required to export to a developing country a product containing or designed to contain CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane [ODSHAR, Subsection 9(1)].

## Written Authorization/Permit is not Required

- 6. A permit is not required:
  - a) for the sale of CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane to a foreign ship for the refilling or servicing of its refrigeration, air-conditioning or fire-extinguishing equipment in a quantity that does not exceed the total capacity of that equipment [ODSHAR, Section 8].
  - b) to export fire-extinguishing equipment for use in aircraft, military ships or military vehicles [ODHSAR, Subsection 9(2)] containing or designed to contain CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane.

## **Import**

## Written Authorization/Permit is Required

- 7. The import of these substances is allowed only on the condition that a copy of a valid permit (please refer to Appendix D to see a sample of a permit) issued by ECCC is presented to the CBSA, where the goods are being released. A permit is required to import any CFC, Bromofluorocarbon, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFC and Bromochloromethane. ECCC will only issue a permit to import for the following purposes:
  - a) its destruction [ODSHAR, Paragraph 11(1)(a)];
  - b) a use set out in Column 3 of Table 1 of Schedule 1 of the ODSHAR [ODSHAR, Paragraph 11(1)(b)];
  - c) its reclamation, if the substance is a CFC, tetrachloromethane, 1,1,1-trichloroethane, an HBFC or bromochloromethane that is recovered, recycled or reclaimed [ODSHAR, Paragraph 11(1)(c)];
  - *d*) any purpose, if the substance is a bromofluorocarbon or bromochlorodifluoromethane that is recovered, recycled or reclaimed [ODSHAR, Subsection 11(2)].

#### Written Authorization/Permit is not Required

- 8. A permit is not required for the import of the following products containing or designed to contain CFCs, Bromofluorocarbons, Bromochlorodifluoromethane, Tetrachloromethane, 1,1,1-Trichloroethane, HBFCs and Bromochloromethane:
  - a) fire-extinguishing equipment containing or designed to contain a bromofluorocarbon or bromochlorodifluoromethane for use in aircraft, military ships or military vehicles if the equipment is imported from a Party [ODSHAR, Paragraph 13(2)(a)];
  - b) an aircraft, ship or vehicle manufactured before January 1, 1999 [ODSHAR, Paragraph 13(2)(b)];
  - c) a personal or household effect for the person's personal use [ODSHAR, Paragraph 13(2)(c)];
  - d) a product that contains a CFC supplied in a container of 3 L or less and that is used for a laboratory or analytical use [ODSHAR, Paragraph 13(2)(d)].

#### The import of all other products containing or designed to contain these substances is prohibited.

# **Methyl Bromide**

- 9. Generally, the import and export of methyl bromide, which includes products that contain methyl bromide, are prohibited except in specific circumstances.
- 10. Please refer to Table 2 of <u>Schedule 1 of the Ozone-depleting Substances and Halocarbon Alternatives</u>

  <u>Regulations</u> for the list of these substances and to <u>Appendix A</u> and <u>Appendix B</u> for the list of common/trade names and their classification.

#### **Export**

- 11. The export of methyl bromide is allowed only on the condition that a copy of a valid permit (please refer to Appendix D to see a sample of a permit) issued by ECCC is presented to the CBSA at the export reporting office located closest to the place of exit of the goods from Canada. ECCC will only issue a permit for export for the following purposes:
  - a) its destruction [ODSHAR, Paragraph 22(a)];
  - b) its disposal if the methyl bromide was imported by mistake [ODSHAR, Paragraph 22(b)];
  - c) a use set out in column 3 of Table 2 of <u>Schedule 1 of the ODSHAR</u> if the methyl bromide was manufactured or imported for a use set out in that column [<u>ODSHAR</u>, <u>Paragraph 22(c)</u>].

#### **Import**

- 12. The import of methyl bromide is allowed only on the condition that a copy of a valid permit (please refer to <a href="Appendix D">Appendix D</a> to see a sample of a permit) issued by ECCC is presented to the CBSA where the goods are being released. ECCC will only issue a permit for import for the following purposes:
  - a) its destruction [ODSHAR, Paragraph 24(a)]
  - b) a use set out in Column 3 of Table 2 of Schedule 1 of the ODSHAR [ODSHAR, Paragraph 24(b)]

#### **HCFCs**

- 13. Generally, the import and export of HCFCs and products containing or designed to contain HCFCs are controlled.
- 14. Please refer to <u>Table 3 of Schedule 1 of the Ozone-depleting Substances and Halocarbon Alternatives</u>

  <u>Regulations</u> for the list of these substances and to <u>Appendix A</u> and <u>Appendix B</u> for the list of common/trade names and their classification.

#### **Export**

#### Written Authorization/Permit is Required

- 15. The export of HCFCs is allowed only on the condition that a copy of a valid permit (please refer to <a href="Appendix D">Appendix D</a> to see a sample of a permit) issued by ECCC is presented to the CBSA at the export reporting office located closest to the place of exit of the goods from Canada. ECCC will only issue a permit for export for the following purposes:
  - a) its destruction[ODSHAR, Paragraph 34(1)(a)];
  - b) its disposal if the HCFC was imported by mistake [ODSHAR, Paragraph 34(1)(b)];
  - c) a use set out in column 3 of <u>Table 3 of Schedule 1 of the ODSHAR</u> if the HCFC was manufactured or imported for a use set out in that column [ODSHAR, Paragraph 34(1)(c)];
  - d) any purpose, if the HCFC is recovered, recycled or reclaimed [ODSHAR, Subsection 34(2].

#### Written Authorization/Permit is not Required

16. A permit is not required for the sale of HCFCs to a foreign ship for the refilling or servicing of its refrigeration, air-conditioning or fire-extinguishing equipment in a quantity that does not exceed the total capacity of that equipment [ODSHAR, Section 35].

#### **Import**

#### Written Authorization/Permit is Required

- 17. The import of HCFCs is allowed only on the condition that a copy of a valid permit (please refer to Appendix D to see a sample of a permit), a valid allowance or a valid transfer of allowance from ECCC is presented to the CBSA, where the goods are being released. ECCC will only issue an import permit for the following purposes:
  - a) its destruction [ODSHAR, Paragraph 37(1)(a)];
  - b) a use set out in column 3 of Table 3 of Schedule 1 [ODSHAR, Paragraph 37(1)(b)]; and
  - c) any purpose, if the HCFC is recovered, recycled or reclaimed until January 1, 2020 or until January 1, 2030 in the case of HCFC-123 [ODSHAR, Subsection 37(2)].
- 18. New HCFC-22, HCFC-141b and HCFC-142b can be imported with an allowance or a transfer of allowance, if they are intended to be exported or to be used as a refrigerant or as a fire-extinguishing agent. This ceases to have effect on January 1, 2020 or in the case of HCFC-123, if it is to be exported or used as a refrigerant, on January 1, 2030 [ODSHAR, Subsection 38(1)].

#### Written Authorization/Permit is not Required

- 19. A permit is not required for the import of the following products containing or designed to contain HCFCs. It is important to note that the import of these products is prohibited after January 1, 2020 except for (b), which will continue to be allowed indefinitely.
  - *a)* Products containing or designed to contain HCFCs other than HCFC-22, HCFC-141b and HCFC-142b: e.g., air-conditioning system, refrigerator, chiller, vending machine [ODSHAR, Section 40];
  - b) Products containing or designed to contain HCFCs that is a personal or household effect for the person's personal use [ODSHAR, Paragraph 40(a)];
  - c) Products used in military ships before January 1, 2017 [ODSHAR, Paragraph 40(b)];
  - d) A pressurized container that contains 2kg or less of an HCFC other than HCFC-22, HCFC-141b or HCFC-142b:
    - (i) a mould release agent used in the manufacture of plastic and elastomeric materials [ODSHAR, Paragraph 42(2)(a)];
    - (ii) a spinneret lubricant or cleaning agent used in the manufacture of synthetic fibres [ODSHAR, Paragraph 42(2)(b)];
    - (iii) a document preservation agent [ODSHAR, Paragraph 42(2)(c)];
    - (iv) a fire-extinguishing agent used in equipment for non-residential applications [ODSHAR, Paragraph 42(2)(d)];
    - (v) a wasp or hornet agent [ODSHAR, Paragraph 42(2)(e)];
    - (vi) a rigid foam product [ODSHAR, Paragraph 42(2)(f)];
    - (vii) refrigerant R-412A [ODSHAR, Paragraph 42(2)(g)]
    - (viii) refrigerant R-509A [ODSHAR, Paragraph 42(2)(h)]
  - e) A pressurized container containing a product other than HCFC-22, HCFC-141b or HCFC-142b intended for use in animal or human health care, including a bronchial dilator, inhalable steroid, topical anesthetic and veterinary wound powder spray or for a laboratory or analytical use [ODSHAR, Paragraph 42(3)(a) and Paragraph 42(3)(b)].

#### **HFCs**

- 20. The import and export of bulk HFCs listed in Table 4 of Schedule 1 to the ODSHAR are controlled.
- 21. The import of products containing or designed to contain HFCs (any HFC) is or will be controlled depending on the product and effective date (see paragraph 24). Note that there are <u>no</u> prohibitions for the export of products containing or designed to contain HFCs.

#### **Export**

22. The export of HFCs is allowed only on the condition that a copy of a valid permit (please refer to <u>Appendix D</u> to see a sample of a permit) issued by ECCC is presented to the CBSA at the export reporting office closest to the place of exit of the goods from Canada [ODSHAR, Section 64].

#### **Import**

- 23. The import of HFCs is allowed only on the condition that a copy of a valid permit for recovered, recycled or reclaimed bulk HFCs or of a valid consumption allowance for new bulk HFCs (please refer to Appendix D to see a sample of a permit and a consumption allowance) issued by ECCC is presented to the CBSA, where the goods are being released.
- 24. The restrictions on imports of products containing or designed to contain HFCs (any HFC) are as follows:
  - a) As of January 1, 2019, it is prohibited to import a pressurized container that contains 2 kg or less of an HFC if the HFC is used as a propellant if the global warming potential of that HFC is greater than 150 [ODSHAR, Subsection 64.6(1)];
  - b) As of the date indicated in column 3 of Schedule 1.1, it is prohibited to import any product in that Schedule that contains or is designed to contain an HFC that is set out in Table 4 of Schedule 1 and is to be used as a refrigerant, if the global warming potential of the refrigerant used in that product is greater than the specified limit in Schedule 1.1 [ODSHAR, Subsection 64.4(1)];
  - c) Beginning with the 2021 model year, it is prohibited to import a an automobile equipped with an air-conditioning system that contains or is designed to contain an HFC that is set out in Table 4 of Schedule 1 and is to be used as a refrigerant if the global warming potential of the refrigerant used in that system is greater than 150 [ODSHAR, Subsection 64.4(3)];
  - d) As of January 1, 2021, it is prohibited to import a plastic foam or rigid foam product in which an HFC set out in Table 4 of Schedule 1 is used as a foaming agent if the global warming potential of the foaming agent is greater than 150 [ODSHAR, Subsection 64.5(1)];

#### Written Authorization/Permit is not Required

- 25. There are some exceptions to the restrictions of imports of products containing or designed to contain HFCs:
  - a) The prohibition on the import of pressurized containers that contain 2kg or less of an HFC used as a propellant when the HFC has a GWP higher than 150 does not apply to pressurized containers that contain [ODSHAR, Subsection 64.6(2)]:
    - i. a mould release agent or mould cleaning agent;
    - ii. a spinneret lubricant or cleaning agent used in the manufacture of synthetic fibers;
    - iii. a document preservation agent;
    - iv. a lubricant, cleaning agent, freezing agent or corrosion prevention agent used for electrical equipment or electronic components;
    - v. a duster agent used on photographic negatives and semiconductor chips;
    - vi. a lubricant, cleaning agent or corrosion prevention agent used for aircraft maintenance;
    - vii. a pesticide used near electrical wires or in aircraft or a certified organic-use pesticide;
    - viii. a stench gas used in mines; or
    - ix. a cooling agent used for testing electronics and electro-mechanical systems.
  - b) The prohibition on the import of pressurized containers that contain 2kg or less of an HFC used as a propellant when the HFC has a GWP higher than 150 also does not apply to a pressurized container that contains a product that is intended [ODSHAR, Subsection 64.6(3)]
    - i. For use in animal or human health care, including a bronchial dilator, inhalable steroid, topical anesthetic, bandage adhesive remover and veterinary wound powder spray; or
    - ii. For a laboratory or analytical use.

- c) The prohibition on the import of automobiles of 2021 and subsequent model years containing HFCs does not apply to an automobile destined for the person's personal use [ODSHAR, Subsection 64.4(4)].
- d) The prohibition on the import of a plastic foam or rigid foam product starting on January 1, 2019 does not apply to
  - i. a person's personal effect that contains the plastic foam or rigid foam product [ODSHAR, Subsection 64.5(2)];
  - ii. a plastic foam or a rigid foam product that is intended to be used for military, space or aeronautical applications [ODSHAR, Subsection 64.5(3)].

# **Products for Essential Purpose**

- 26. Products containing or manufactured with ODS or HFCs may be imported with a valid permit issued by ECCC if it is for an essential purpose [ODSHAR, Subsections 66(1) and 66(2)]. Essential purpose permits may be issued for a period up to 36 months [ODSHAR, Subsection 66(2)].
- 27. Essential purpose permits do not exist for exports.

## Maintenance of Records and Reporting

28. Every importer and exporter of ODS and HFCs is required to keep records and to report to ECCC as specified in the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*. The CBSA does not maintain these records. Memorandum D17-1-21 outlines the maintenance of records and books in Canada by importers.

# **Responsibilities of Canada Border Services Agency**

- 29. The CBSA will perform visual checks of conveyances or containers for placards, labels or other markings that might indicate shipments containing controlled ODS or HFCs. For all shipments of controlled ODS and HFCs and products containing or designed to contain these substances that are imported, exported or that transit through Canada, the importer, customs broker, carrier, or their agent, must present the CBSA with one of the required documents:
  - a) a copy of the permit;
  - b) a copy of the Minister's written confirmation of their allowance or transfer of allowance; or
  - c) an acknowledgement of their notice of shipment in transit.
- 30. Shipments containing regulated ODS or HFCs imported, exported or in transit through Canada will not be allowed to proceed until the required document is presented to the CBSA. For all in-transit movements of the ODS or HFC, documentation will be verified by border services officers when the shipments of ODS or HFC enter and exit Canada. Quantities must be presented in the same format as the one specified in the written authorization in order to verify that the import or export is within the maximum allowable quantity, i.e. kilograms, ODP kilograms, grams, ODP grams, milligrams, ODP milligrams or tonnes of CO<sub>2</sub> equivalent.
- 31. The CBSA will request the prescribed document (a copy of the permit or written confirmation of the consumption allowance or an acknowledgement of the notice of shipment in transit <u>Appendix D</u> displays samples of required documents) prior to releasing the goods and will also ensure that:
  - a) the importer or exporter name matches the name on the ECCC authorization;
  - b) the document is signed by the Director, Chemical Production Division, on behalf of the Minister of the Environment;
  - c) an effective date is shown on the document;
  - d) the document is granted for the specific ozone-depleting substance or HFC being imported; and
  - e) the shipment arrives within the effective date indicated in the document.

- 32. Further information concerning the release of commercial goods can be found in the Memorandum D17-1-4, <u>Release of Commercial Goods</u>. Please refer to the <u>Reporting of Exported Goods Regulations</u> for specific time frames for reporting at the CBSA export reporting offices.
- 33. If a border services officer suspects that a shipment is in violation of the <u>Ozone-depleting Substances and Halocarbon Alternatives Regulations</u>, the shipment will be detained and the nearest ECCC regional office should be contacted immediately.
- 34. Upon recommendation of an ECCC enforcement officer, the CBSA may refuse entry into Canada or may refuse export from Canada of a shipment suspected of non-compliance with CEPA.

# Responsibilities of Environment and Climate Change Canada

- 35. ECCC authorizes importers and exporters to import or export ODS and HFCs and products containing or designed to contain these substances by issuing a permit to import or a permit to export and/or by issuing an allowance (for HCFCs and new bulk HFCs only) or a transfer of allowance. Examples of such written authorizations can be found in <u>Appendix D</u>.
- 36. Any questions with reference to permits or allowances should be referred to the Chemical Production Division of ECCC (by e-mail at <u>ec.gestionhalocarbures-halocarbonsmanagement.ec@canada.ca</u> or by phone at 819-938-4228).

# Implementation of the CBSA Single Window Initiative (SWI)

- 37. On March 29, 2015, the CBSA SWI launched a new release service option, Integrated Import Declaration (IID service option 911) that allows importers and customs brokers (must be registered with the CBSA) to submit and obtain electronic release for regulated goods.
- 38. Since March 2017, importers of ODS, Halocarbon Alternatives and HFCs and products containing them have an option to submit release requests to the CBSA electronically by using an IID.
- 39. Data elements (optional, conditional, and mandatory) to be included in the IID can be found in the Appendix B3.2 of the <a href="SWI IID Electronic Commerce Client Requirements Document">SWI IID Electronic Commerce Client Requirements Document</a> (ECCRD).
- 40. ECCC will receive the IID information at the time of release each shipment.
- 41. For more information about the SWI, please refer to the <u>CBSA website</u> <u>Single Window Initiative</u>. The <u>SWI IID ECCRD</u> provides technical and system requirements information.

# **Emergency Situations**

- 42. The CBSA will take reasonable measures to ensure that potentially dangerous situations, resulting from the presence of controlled ODS or halocarbon alternatives at CBSA premises (e.g., a leakage or spill), do not pose a hazard to CBSA employees or to the public. The CBSA can obtain information on dealing with emergencies involving ODS or HFC by contacting the <a href="Canadian Transport Emergency Centre">Canadian Transport Emergency Centre</a> (CANUTEC), a national advisory service provided by Transport Canada to assist in handling dangerous goods emergencies, at 1-888-CAN-UTEC (226-8832) or (613) 996-6666.
- 43. Incidents involving leaks or spills of ODSs or HFCs should be dealt with in accordance to the emergency response plan in place at the CBSA office affected.
- 44. Emergencies involving ODS or HFC should also be reported to the appropriate emergency response agency and to the appropriate regional office of ECCC's Environmental Enforcement Directorate.

# **Penalty Information**

## Canadian Environmental Protection Act, 1999 (CEPA)

45. The following table represents the monetary penalty regime under the Environmental Enforcement Act that amends the fines, sentencing provisions and enforcement tools of six acts administered by ECCC, including CEPA.

Fine Regime under the Environmental Enforcement Act						
Offender	Type of	Sum	Summary		Indictment	
Offender	Offence	Minimum	Maximum	Minimum	Maximum	
Individuals	Most serious	\$5 000	\$300 000	\$15 000	\$1 M	
	offences					
	Other offences	N/A	\$25 000	N/A	\$100 000	
Small Corporations &	Most serious	\$25 000	\$2 M	\$75 000	\$4 M	
Ships under 7500 t	offences					
	Other offences	N/A	\$50 000	N/A	\$250 000	
Corporations & Ships	Most serious	\$100 000	\$4 M	\$500 000	\$6 M	
over 7500 t	offences					
	Other offences	N/A	\$250 000	N/A	\$500 000	

<sup>46.</sup> The courts may impose penalties in accordance with the penalty regime specified in CEPA, section 272 and onwards.

# **Administrative Monetary Penalty System (AMPS)**

47. The <u>Administrative Monetary Penalty System</u> (AMPS) authorizes the CBSA to impose monetary penalties for non-compliance with <u>Customs Act</u>, <u>Customs Tariff</u> and the regulations under these Acts, as well as contraventions of the terms and conditions of licensing agreements and undertakings. Please refer to the <u>Memorandum D22-1-1</u>, <u>Administrative Monetary Penalty System</u> for details.

#### **Additional Information**

48. For further information about import or export of ODS or HFCs, please contact:

Ozone Layer Protection and Export Controls Chemical Production Division Environment and Climate Change Canada 351 St. Joseph Boulevard, 11th floor Gatineau, QC K1A 0H3

Tel.: 819-938-4228 Fax: 819-938-4218

Email: ec.gestionhalocarbures-halocarbonsmanagement.ec@canada.ca

or visit ECCC's Stratospheric Ozone website.

49. For more information regarding the CBSA's programs and services, please contact the Border Information Service (BIS) line. Within Canada, you can call BIS toll-free at **1-800-461-9999**. From outside Canada, please call 204-983-3500 or 506-636-5064 (long-distance charges will apply). Agents are available Monday to Friday (08:00 – 16:00 local time, except holidays). TTY is also available within Canada at 1-866-335-3237.

# Appendix A

Common/Trade Names of Ozone-depleting Substances and HFCs		
Common/Trade Names	Substance	
1211	Halon 1211	
1,1,2-Trichlorotrifluoroethane	CFC-113	
1,1,1-TCE	MCF	
1,1,1-tri	MCF	
1,1,1-trichloroethane	MCF	
A D Delco Fabric	MCF	
Aerolex	MCF	
Aerothene (R) TA solvent	MCF	
Aerothene (R) TT solvent	MCF	
Algofrene 11	CFC-11	
Algofrene 113	CFC-113	
Algofrene 114	CFC-114	
Algofrene 115	CFC-115	
Algofrene 12	CFC-12	
Algofrene 22	HCFC-22	
Algofrene 502	CFC-115	
Alpha-T	MCF	
Alpha-trichloroethane	MCF	
Alpha 1220	MCF	
Aquadry 50	MCF	
Arcton 11	CFC-11	
Arcton 113	CFC-113	
Arcton 114	CFC-114	
Arcton 115	CFC-115	
Arcton 12	CFC-12	
Arcton 13	CFC-13	
Arcton 22	HCFC-22	
Arcton 402A	HCFC-22	
Arcton 402B	HCFC-22	
Arcton 408A	HCFC-22	
Arcton 409a	HCFC-22	
Arcton 412A	HCFC-22	
Arcton 509	HCFC-22	
Arcton TP5R	HCFC-22	
Arcton TP5R2	HCFC-22	
Ardrox 8PR551 Penetrant Remover	MCF	
Ardrox D495A Developer	MCF	
Ardrox K410C Remover	MCF	
Arklone AM	CFC-113	
Arklone AMD	CFC-113	

	GDG 112
Arklone AS	CFC-113
Arklone EXT	CFC-113
Arklone K	CFC-113
Arklone L	CFC-113
Arklone P	CFC-113
Arklone PCIL	CFC-113
Arklone PSM	CFC-113
Arklone W	CFC-113
Arrow C190 LEC	MCF
Asahifron R-11	CFC-11
Asahifron R-113	CFC-113
Asahifron R-114	CFC-114
Asahifron R-115	CFC-115
Asahifron R-12	CFC-12
Asahifron R-13	CFC-13
Asahifron R-22	HCFC-22
Asahifron R-500	CFC-12
Asahifron R-502	CFC-115
Asahiklin AK-123	HCFC-123
Asahiklin AK-124	HCFC-124
Asahiklin AK-134a	HFC-134a
Asahiklin AK-141b	HCFC-141b
Asahiklin AK-142b	HCFC-142b
Asahiklin AK-225	HCFC-225
Asahiklin AK-225AE	HCFC-225
Asahiklin AK-225AES	HCFC-225
Asahiklin AK-123DH	HCFC-225
Asahiklin AK-123DW	HCFC-225
Asahiklin SA-28	HFC-125/HFC-143a (50/50)
Asahiklin SA-39	HFC-32/HFC-125/HFC-134a (23/25/52)
	HFC-32/HFC-125/HFC-143a/HFC-134a
Asahiklin SA-45	(10/40/30/20)
Autofrost Chill It	HCFCs
Asahitriethane xxx	MCF
AZ-20	HFC-32/HFC-125 (50/50)
AZ-50	HFC-125/HFC-143a (50/50)
B-70 Nettoyeur dégraisseur	MCF
B-Lube	MCF
Balcoxx	MCF
Baltane	MCF
Baltanexx	MCF
BCF Fire Extinguisher Halon	Halon 1211
BCM	BCM
Bromochlorodifluromethane	Halon 1211
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Bromofluoroform	Halon 1301
Bromomethane	MBr
Bromotrifluoromethane	Halon 1301
Carbon dichloride difluoride	CFC-12
Carbon monobromide trifluroride	Halon 1301
Carbon Tet	CT
Carbon Tetrachloride	CT
Carbon Tetrachloride Fisher	CT
Carbon Tetrachloride Petro-Canada	CT
Carbon Tetrachloride Vulcan	CT
CB-046 mold releasing agent	HCFC-141b
CFC(-)11	CFC-11
CFC(-)113	CFC-113
CFC-11	CFC-11
CFC-113	CFC-113
CFC-114	CFC-114
CFC-115	CFC-115
CFC-12	CFC-12
CFC114	CFC-114
CFC115	CFC-115
CG Triethane F	MCF
CG Triethane N	MCF
CG Triethane NN	MCF
CG Triethane NNA	MCF
CG Triflon	CFC-113
CG Triflon A	CFC-113
CG Triflon C1	CFC-113
CG Triflon CP	CFC-113
CG Triflon D3	CFC-113
CG Triflon DI	CFC-113
CG Triflon E	CFC-113
CG Triflon EC	CFC-113
CG Triflon EE	CFC-113
CG Triflon ES	CFC-113
CG Triflon FD	CFC-113
CG Triflon M	CFC-113
CG Triflon MES	CFC-113
CG Triflon P	CFC-113
CG Triflon WI	CFC-113
Chem-Slich	MCF
Chemlok 252	MCF
Chlorethene (R)	MCF
Chlorethene (R) NU	MCF

Chlorethene (R) SL	MCF
Chlorethene (R) SM	MCF
	MCF
Chlorethene (R) VG	MCF MCF
Chlorethene (R) XL	
Chlorobromodifluromethane	Halon 1211
Chlorobromomethane	BCM
Chlorodifluorobromomethane	Halon 1211
Chlorofluorocarbon 12	CFC-12
Chlorofluorocarbon C-113	CFC-113
Chloropentafluoroethane	CFC-115
Chlorothane	MCF
Chlorotrifluoromethane	CFC-13
Chlorure de carbone	CT
Circuit Freeze	CFC-12
Circuit Refrigerant PH100-14	CFC-12
Circuit Refrigerant PH100-20	CFC-12
CRC Lectra Clean	MCF
CRC226	MCF
Daiflon 11	CFC-11
Daiflon 113	CFC-113
Daiflon 114	CFC-114
Daiflon 115	CFC-115
Daiflon 12	CFC-12
Daiflon 13	CFC-13
Daiflon 142b	HCFC-142b
Daiflon 22	HCFC-22
Daiflon 500	CFC-12
Daiflon 502	CFC-115
Daiflon S3	CFC-113
Daiflon S3-A	CFC-113
Daiflon S3-E	CFC-113
Daiflon S3-EN	CFC-113
Daiflon S3-ES	CFC-113
Daiflon S3-HN	CFC-113
Daiflon S3-MC	CFC-113
Daiflon S3-P35	CFC-113
Daiflon S3-W6	CFC-113
Delifrene 113	CFC-113
Dibromo-tetrafluoroethane,	Halon 2402
Dichlorodifluoromethane CCl2F2	CFC-12
Dichlorotetrafluoroethane	CFC-114
Difluorochlorobromomethane	Halon 1211
Difluorodichloromethane	CFC-12
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Di 24	HCFC-124
Di 36	HCFC-22
Di 44	HCFC-22
Dional 11	CFC-11
Dional 113	CFC-113
Dowclene (R) EC	MCF
Dowclene (R) EC-S	MCF
Dowclene (R) LS	MCF
Dry Cleaning Fluid	MCF
Dry Cleaning Solvent	MCF
Dymel 134a	HFC-134a
Dymel 142b	HCFC-142b
Dymel 152a	HFC-152a
Dymel 22	HCFC-22
EcoloAce 404a	HFC-125/HFC-143a/HFC-134a (44/52/4)
EcoloAce 407c	HFC-32/HFC-125a/HFC-134a
Elecsoly	MCF
Ethana AL	MCF
Ethana FXN	MCF
Ethana HT	MCF
Ethana IRN	MCF
Ethana NU	MCF
Ethana RD	MCF
Ethana RS	MCF
Ethana SL	MCF
Ethana TS	MCF
Ethana VG	MCF
F-113	CFC-113
F-114	CFC-114
F-115	CFC-115
FCC-11	CFC-11
FCC-12	CFC-12
FCC-13	CFC-13
FE-13	HFC-23
FE-25	HFC-125
FE-36	HFC-236fa
FE-232	HCFC-123
FE-241	HCFC-124
Film Cleaning Grade	MCF
Fire Extinguisher Flugex 12B1	Halon 1211
Flon Showa 11	CFC-11
Flon Showa 114	CFC-114
Flon Showa 12	CFC-12
1 1011 D110 Wu 12	01 0 12

Flon Showa 22	Flon Showa 13	CFC-13
Flon Showa 500		
Flon Showa FS-3		
Flon Showa FS-3		
Flon Showa FS-3A		
Flon Showa FS-3D		
Flon Showa FS-3E		
Flon Showa FS-3BS		
Flon Showa FS-3M		
Flon Showa FS-3MS		
Flon Showa FS-3P		
Floron 11		
Floron 11		
Floron 12		
Floron 22		
Floron 134a		
Flugene 22	Floron 22	HCFC-22
Fluorisol	Floron 134a	HFC-134a
Fluorocarbon 11 Fluorocarbon 114 Fluorocarbon(-)113 Fluorocarbon(-)113 Fluorocarbon(-)113 Fluorocarbon 115 FM-200 HFC-227ea Forane 11 Forane 113 Forane 114 Forane 115 Forane 121 Forane 12 Forane 12 Forane 12 Forane 123 Forane 125 Forane 125 Forane 13 Forane 134 Forane 134 Forane 141b Forane 142b Forane 22 Forane 32 Forane 32 Forane 404A Forane 407C Forane 407C FO-114 FFC-125 FFC-123 FFC-125 FFC-134 FFC-125/HFC-134a(23/25/52) Forane 500 Forane 500 Forane 500 FFC-12	Flugene 22	HCFC-22
Fluorocarbon 114   CFC-114     Fluorocarbon(-)113   CFC-113     Fluorochloroform   CFC-11     Fluorocarbon 115   CFC-115     FM-200   HFC-227ea     Forane 11   CFC-111     Forane 113   CFC-113     Forane 114   CFC-114     Forane 115   CFC-114     Forane 12   CFC-115     Forane 12   CFC-12     Forane 123   HCFC-123     Forane 125   HFC-125     Forane 13   CFC-13     Forane 13   CFC-13     Forane 134a   HFC-134a     Forane 141b   HCFC-141b     Forane 142b   HCFC-142b     Forane 22   HCFC-22     Forane 32   HFC-32     Forane 404A   HFC-125/HFC-134a/HFC-143a     Forane 407C   HFC-32/HFC-125/HFC-134a(23/25/52)     Forane 500   CFC-12     Forance 500   CFC-12	Fluorisol	CFC-113
Fluorocarbon(-)113         CFC-113           Fluorochloroform         CFC-11           Fluorocarbon 115         CFC-115           FM-200         HFC-227ea           Forane 11         CFC-11           Forane 113         CFC-11           Forane 114         CFC-113           Forane 115         CFC-114           Forane 115         CFC-115           Forane 12         CFC-12           Forane 123         HCFC-123           Forane 125         HFC-125           Forane 13         CFC-13           Forane 13         CFC-13           Forane 141b         HCFC-134a           Forane 142b         HCFC-141b           Forane 22         HCFC-22           Forane 32         HFC-32           Forane 404A         HFC-125/HFC-134a/HFC-143a           Forane 407C         HFC-32/HFC-125/HFC-134a(23/25/52)           Forane 500         CFC-12	Fluorocarbon 11	CFC-11
Fluorochloroform         CFC-11           Flurorocarbon 115         CFC-115           FM-200         HFC-227ea           Forane 11         CFC-11           Forane 113         CFC-113           Forane 114         CFC-114           Forane 115         CFC-115           Forane 12         CFC-12           Forane 123         HCFC-123           Forane 125         HFC-125           Forane 13         CFC-13           Forane 134a         HFC-134a           Forane 141b         HCFC-141b           Forane 142b         HCFC-142b           Forane 22         HCFC-22           Forane 32         HFC-32           Forane 404A         HFC-32/HFC-134a/HFC-143a           Forane 407C         HFC-32/HFC-125/HFC-134a(23/25/52)           Forane 500         CFC-12	Fluorocarbon 114	CFC-114
Flurorocarbon 115  FM-200  HFC-227ea  Forane 11  CFC-11  Forane 113  CFC-113  Forane 114  Forane 115  CFC-114  Forane 12  CFC-115  Forane 12  Forane 123  HCFC-123  Forane 125  Forane 125  Forane 13  CFC-13  Forane 134  Forane 141b  HCFC-141b  Forane 142b  Forane 142b  Forane 22  HCFC-22  Forane 32  Forane 32  Forane 404A  HFC-125/HFC-134a/HFC-143a  Forane 407C  HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 500  CFC-12	Fluorocarbon(-)113	CFC-113
FM-200	Fluorochloroform	CFC-11
Forane 11 Forane 113 Forane 114 CFC-114 Forane 115 Forane 12 Forane 12 Forane 12 Forane 123 Forane 125 Forane 125 Forane 13 Forane 13 Forane 141b Forane 141b Forane 142b Forane 142b Forane 22 Forane 22 Forane 32 Forane 32 Forane 32 Forane 404A Forane 407C Forane 410A (AZ-20) Forane 500 Forane 500 Forane 500 Forane 500 Forane 500 Forane 113 CFC-114 CFC-115 CFC-115 CFC-12 CFC-12 CFC-12 CFC-12 CFC-115 CFC-115 CFC-115 CFC-115 CFC-114 CFC-123 CFC-12 CFC-12 CFC-114 CFC-124 CFC-124 CFC-124 CFC-125 CFC-12	Flurorocarbon 115	CFC-115
Forane 113 Forane 114 CFC-114 Forane 115 Forane 12 CFC-115 Forane 12 Forane 123 Forane 125 Forane 125 Forane 13 CFC-13 Forane 134a Forane 134a Forane 141b Forane 141b Forane 142b Forane 22 Forane 22 Forane 32 Forane 32 Forane 32 Forane 404A Forane 407C Forane 407C Forane 500 CFC-12	FM-200	HFC-227ea
Forane 114 Forane 115 CFC-115 Forane 12 CFC-12 Forane 123 HCFC-123 Forane 125 Forane 13 CFC-13 Forane 134a Forane 134a Forane 141b HCFC-141b Forane 142b Forane 22 HCFC-22 Forane 32 Forane 32 Forane 404A HFC-32 Forane 407C HFC-32/HFC-134a(23/25/52) Forane 410A (AZ-20) Forane 500 CFC-12	Forane 11	CFC-11
Forane 115 Forane 12 CFC-12 Forane 123 HCFC-123 Forane 125 Forane 13 CFC-13 Forane 134 Forane 134a Forane 141b Forane 141b Forane 142b Forane 22 Forane 32 Forane 32 Forane 32 Forane 404A Forane 407C Forane 407C Forane 410A (AZ-20) Forane 500  CFC-12  CFC-115 CFC-12 HCFC-123 HCFC-123 HCFC-124 HCFC-134a/HFC-143a HFC-32/HFC-134a/HFC-143a HFC-32/HFC-125/HFC-134a(23/25/52) HFC-32/HFC-125/HFC-134a(23/25/52)	Forane 113	CFC-113
Forane 12 Forane 123 Forane 125 Forane 13 Forane 13 Forane 134a Forane 141b Forane 142b Forane 142b Forane 22 Forane 32 Forane 32 Forane 404A Forane 407C Forane 410A (AZ-20) Forane 500  CFC-12  HCFC-123  HCFC-123  HCFC-123  HCFC-1242b  HCFC-22  HCFC-22  HFC-32  HFC-32  HFC-125/HFC-134a/HFC-143a  Forane 407C HFC-125/HFC-125/HFC-134a(23/25/52)  Forane 500  CFC-12	Forane 114	CFC-114
Forane 123 Forane 125 Forane 13 Forane 13 Forane 134a Forane 141b Forane 142b Forane 142b Forane 22 Forane 32 Forane 32 Forane 404A Forane 407C Forane 407C Forane 410A (AZ-20) Forane 500  HCFC-125 HCFC-125 HCFC-125 HCFC-125/HFC-134a(23/25/52) HFC-125/HFC-32(50/50) Forane 500  CFC-12	Forane 115	CFC-115
Forane 125 Forane 13 CFC-13 Forane 134a HFC-134a Forane 141b HCFC-141b Forane 142b Forane 22 HCFC-22 Forane 32 HFC-32 Forane 404A HFC-125/HFC-134a/HFC-143a Forane 407C HFC-32/HFC-125/HFC-134a(23/25/52) Forane 410A (AZ-20) Forane 500 CFC-12	Forane 12	CFC-12
Forane 13  Forane 134a  Forane 141b  Forane 142b  Forane 22  Forane 32  Forane 32  Forane 404A  Forane 407C  Forane 410A (AZ-20)  Forane 500  CFC-12  CFC-13  HFC-134a  HFC-134a  HFC-125/HFC-134a/HFC-143a  HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 500  CFC-12	Forane 123	HCFC-123
Forane 134a	Forane 125	HFC-125
Forane 141b  Forane 142b  Forane 22  Forane 32  Forane 404A  Forane 407C  Forane 410A (AZ-20)  Forane 500  HCFC-141b  HCFC-142b  HCFC-22  HCFC-22  HFC-32  HFC-32  HFC-32/HFC-134a/HFC-143a  HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 407C  CFC-12	Forane 13	CFC-13
Forane 142b	Forane 134a	HFC-134a
Forane 22 HCFC-22  Forane 32 HFC-32  Forane 404A HFC-125/HFC-134a/HFC-143a  Forane 407C HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 410A (AZ-20) HFC-125/HFC-32(50/50)  Forane 500 CFC-12	Forane 141b	HCFC-141b
Forane 32 HFC-32  Forane 404A HFC-125/HFC-134a/HFC-143a  Forane 407C HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 410A (AZ-20) HFC-125/HFC-32(50/50)  Forane 500 CFC-12	Forane 142b	HCFC-142b
Forane 404A HFC-125/HFC-134a/HFC-143a Forane 407C HFC-32/HFC-125/HFC-134a(23/25/52) Forane 410A (AZ-20) HFC-125/HFC-32(50/50) Forane 500 CFC-12	Forane 22	HCFC-22
Forane 407C HFC-32/HFC-125/HFC-134a(23/25/52)  Forane 410A (AZ-20) HFC-125/HFC-32(50/50)  Forane 500 CFC-12	Forane 32	HFC-32
Forane 410A (AZ-20) HFC-125/HFC-32(50/50) Forane 500 CFC-12	Forane 404A	HFC-125/HFC-134a/HFC-143a
Forane 500 CFC-12	Forane 407C	HFC-32/HFC-125/HFC-134a(23/25/52)
Forane 500 CFC-12	Forane 410A (AZ-20)	HFC-125/HFC-32(50/50)
Forane 502 CFC-115	Forane 500	CFC-12
	Forane 502	CFC-115

Forane 507	HFC-125/HFC-143a
Forane FX 10	HCFC-22
Forane FX 20	HCFC-22
Forane FX 40	HFC-32/HFC-125/HFC-143a(10/45/45)
Forane FX 55	HCFC-22
Forane FX 56	HCFC-22
Forane FX 57	HCFC-22
Forane FX 70	
Forane FX 220	HFC-125/HFC-134a/HFC-143a(44/4/52)
	HFC-23/HFC-32/HFC-134a (3/25/72)
Formacel S	HCFC-22
Formacel Z2	HFC-152a
Formacel Z4	HFC-134a
Free Zone	HCFC-142b
Freeze 12	HCFC-142b
Freeze-It	CFC-12
Freezone	HCFCs
Freon 11	CFC-11
Freon 113	CFC-113
Freon 114	CFC-114
Freon 115	CFC-115
Freon 12	CFC-12
Freon 13	CFC-13
Freon 22	HCFC-22
Freon 502	CFC-115
Freon MCA	CFC-113
Freon PCA	CFC-113
Freon SMT	CFC-113
Freon T-B1	CFC-113
Freon T-DA35	CFC-113
Freon T-DA35X	CFC-113
Freon T-DEC	CFC-113
Freon T-DECR	CFC-113
Freon T-DFC	CFC-113
Freon T-DFCX	CFC-113
Freon T-E35	CFC-113
Freon T-E6	CFC-113
Freon T-P35	CFC-113
Freon T-WD602	CFC-113
Freon TA	CFC-113
Freon TDF	CFC-113
Freon TE	CFC-113
Freon TES	CFC-113
Freon TF	CFC-113
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Freon TMS         CFC-113           Freon TMS solvents         CFC-113           Freon TWD 602         CFC-113           Freon TWD 602         CFC-113           FRIGC-FR 12         HCFC-124           Frigen 11         CFC-11           Frigen 11         CFC-11           Frigen 13         CFC-113           Frigen 115         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-13           Frigen 2         HCFC-22           Frigen 500         CFC-12           Frigen 500         CFC-13           Frigen 500         CFC-13           Frigen 500         CFC-13           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolv	Freon TMC	CFC-113
Freon TMS solvents         CFC-113           Freon TP35         CFC-113           Freon TWD 602         CFC-113           FRIGC-FR 12         HCFC-124           Frigen 11         CFC-11           Frigen 11         CFC-11           Frigen 113         CFC-113           Frigen 114         CFC-114           Frigen 115         CFC-115           Frigen 116         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-12           Frigen 13         CFC-12           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 12         CFC-12           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve AD-17         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AE         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113		
Freon TP35		
Freon TWD 602         CFC-113           FRIGC-FR 12         HCFC-124           Frigen 11         CFC-11           Frigen 113         CFC-113           Frigen 114         CFC-115           Frigen 115         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-12           Frigen S0         CFC-12           Frigen 500         CFC-12           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Frigas 141b         HCFC-141b           Fronsolve AD-17         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           G 2015         HCFC-2<		
FRIGC-FR 12 HCFC-124 Frigen 11 CFC-11 Frigen 113 CFC-113 Frigen 114 CFC-114 Frigen 115 CFC-115 Frigen 115 CFC-115 Frigen 12 CFC-12 Frigen 13 CFC-13 Frigen 22 HCFC-22 Frigen 500 CFC-12 Frigen TR 113 CFC-113 Friogas 12 CFC-12 Frigas 141b HCFC-141b Fronsolve CFC-113 Fronsolve AD-17 CFC-113 Fronsolve AD-7 CFC-113 Fronsolve AD-9 CFC-113 Fronsolve AD-9 CFC-113 Fronsolve AB-19 CFC-113 Fronsolve AB F		
Frigen 11         CFC-11           Frigen 114         CFC-113           Frigen 115         CFC-114           Frigen 12         CFC-12           Frigen 13         CFC-12           Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AK         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           Fronsolve B         CFC-113           G 2015         HCFCs           G 7riflon E35         CFC-113           G 12         CFC-12           G 2018         HCFC-22		
Frigen 113         CFC-113           Frigen 114         CFC-114           Frigen 115         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-13           Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve AD-17         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G Triflon E35         CFC-12           G2018A         HCFC-22           G2018B         HCFC-22		
Frigen 114         CFC-114           Frigen 115         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AE         CFC-113           Fronsolve AE         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AM         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           FY-56         HCFC-22           G 2015         HCFC           G 2018         HCFC-22           G 2018A         HCFC-22           G 2018B         HCFC-141b           Genesolv 2004         HCFC-141b <td></td> <td></td>		
Frigen 115         CFC-115           Frigen 12         CFC-12           Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 14lb         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AB         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           Fx-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2018A         HCFC-22           G2018B         HCFC-22           Genesolv 2000         HCFC-141b	3	
Frigen 12         CFC-12           Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 14lb         HCFC-14lb           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AE         CFC-113           Fronsolve AE         CFC-113           Fronsolve ABS         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G Triflon E35         CFC-113           G Triflon E35         CFC-12           G 2015         HCFC           G 2018A         HCFC-22           G 2018B         HCFC-22	-	
Frigen 13         CFC-13           Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G TC-113         CFC-113           G TC-12         CFC-12           G 2015         HCFC           G 2015         HCFC           G 2018A         HCFC-22           G 2018C         HCFC-22           G 2018C         HCFC-141b           Ge		
Frigen 22         HCFC-22           Frigen 500         CFC-12           Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Frigen TR 113         CFC-12           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Frigen TR 113         CFC-113           Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve R 113         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G 2018A         HCFC-22           G 2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Friogas 12         CFC-12           Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-7         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G 2018A         HCFC-22           G 2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Friogas 141b         HCFC-141b           Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Fronsolve         CFC-113           Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Fronsolve AD-17         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-9         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	-	
Fronsolve AD-7         CFC-113           Fronsolve AD-19         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G 2018         HCFC-22           G2018A         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Fronsolve AD-9         CFC-113           Fronsolve AE         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b		
Fronsolve AD-19         CFC-113           Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018         HCFC-22           G2018A         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AD-7	
Fronsolve AES         CFC-113           Fronsolve AM         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AD-9	CFC-113
Fronsolve AES         CFC-113           Fronsolve AMS         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AD-19	CFC-113
Fronsolve AM         CFC-113           Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AE	CFC-113
Fronsolve AMS         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AES	CFC-113
Fronsolve AP         CFC-113           Fronsolve R 113         CFC-113           FX-56         HCFC-22           G 2015         HCFCs           G Triflon E35         CFC-113           G 12         CFC-12           G2015         HCFC           G2018A         HCFC-22           G2018B         HCFC-22           G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	Fronsolve AM	CFC-113
Fronsolve R 113  FX-56  HCFC-22  G 2015  G Triflon E35  GTriflon E35  GFC-113  G12  G2015  HCFC  G2015  HCFC  G2018A  HCFC-22  G2018B  HCFC-22  G2018C  Genesolv 2000  HCFC-141b  Genesolv 2004	Fronsolve AMS	CFC-113
FX-56       HCFC-22         G 2015       HCFCs         G Triflon E35       CFC-113         G 12       CFC-12         G2015       HCFC         G2018A       HCFC-22         G2018B       HCFC-22         G2018C       HCFC-22         Genesolv 2000       HCFC-141b         Genesolv 2004       HCFC-141b	Fronsolve AP	CFC-113
G 2015       HCFCs         G Triflon E35       CFC-113         G 12       CFC-12         G2015       HCFC         G2018A       HCFC-22         G2018B       HCFC-22         G2018C       HCFC-22         Genesolv 2000       HCFC-141b         Genesolv 2004       HCFC-141b	Fronsolve R 113	CFC-113
G Triflon E35  G 12  CFC-12  G2015  HCFC  G2018A  HCFC-22  G2018B  HCFC-22  G2018C  HCFC-22  Genesolv 2000  HCFC-141b  Genesolv 2004  HCFC-141b	FX-56	HCFC-22
G 12 G2015 HCFC G2018A HCFC-22 G2018B HCFC-22 G2018C HCFC-22 Genesolv 2000 HCFC-141b Genesolv 2004 HCFC-141b	G 2015	HCFCs
G2015       HCFC         G2018A       HCFC-22         G2018B       HCFC-22         G2018C       HCFC-22         Genesolv 2000       HCFC-141b         Genesolv 2004       HCFC-141b	G Triflon E35	CFC-113
G2018A       HCFC-22         G2018B       HCFC-22         G2018C       HCFC-22         Genesolv 2000       HCFC-141b         Genesolv 2004       HCFC-141b	G 12	CFC-12
G2018B       HCFC-22         G2018C       HCFC-22         Genesolv 2000       HCFC-141b         Genesolv 2004       HCFC-141b	G2015	HCFC
G2018C         HCFC-22           Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	G2018A	HCFC-22
Genesolv 2000         HCFC-141b           Genesolv 2004         HCFC-141b	G2018B	HCFC-22
Genesolv 2004 HCFC-141b	G2018C	HCFC-22
	Genesolv 2000	HCFC-141b
Consoly 2122 LICEC 122	Genesolv 2004	HCFC-141b
Genesory 2125   HCFC-125	Genesolv 2123	HCFC-123
Genesolv 2127 HCFC-123	Genesolv 2127	HCFC-123
Genesolv 3100 HFC-356mcf	Genesolv 3100	HFC-356mcf
Genetron 11 CFC-11	Genetron 11	CFC-11
Genetron 113 CFC-113	Genetron 113	CFC-113

Genetron 114	CFC-114
Genetron 115	CFC-115
Genetron 11SBA	CFC-11
Genetron 12	CFC-12
Genetron 123	HCFC-123
Genetron 124	HCFC-124
Genetron 125	HFC-125
Genetron 13	CFC-13
Genetron 134a	HFC-134a
Genetron 141b	HCFC-141b
Genetron 142b	HCFC-142b
Genetron 152a	HFC-152a
Genetron 22	HCFC-22
Genetron 23	HFC-23
Genetron 404A	HFC-125/HFC-143a/HFC-134a
Genetron 407C	HFC-32/HFC-125/HFC-134a
Genetron 408A	HCFC-22
Genetron 409A	HCFC-22
Genetron 500	CFC-12
Genetron 502	CFC-115
Genetron 503	CFC-13
Genetron HP80	HCFC-22
Genetron HP81	HCFC-22
Genetron MP39	HCFC-22
Genetron MP66	HCFC-22
Genklene A	MCF
Genklene LV	MCF
Genklene LVJ	MCF
Genklene LVS	MCF
Genklene LVX	MCF
Genklene N	MCF
Genklene P	MCF
Genklene PT	MCF
Gex	MCF
GHG-HP	HCFC-22
GHG-X4	HCFC-22
GHG-X5	HCFC-22
GHG	HCFC-22
GHG12	HCFC-22
Halocarbon 11	CFC-11
Halocarbon 113	CFC-113
Halocarbon 114	CFC-114
Halocarbon 115	CFC-115

Halocarbon 12	CFC-12
Halocarbon 12B1	Halon 1211
Halocarbon 13B1	Halon 1301
Halocarbure 12	CFC-12
Halocarbure 11	CFC-12
Halocarbure 113	CFC-113
Halocarbure 114	CFC-114
Halocarbure 115	CFC-114 CFC-115
Halon 1211	Halon 1211
Halon 1301	Halon 1301
Halotron 1	HCFCs
Halotron 1 Primarily	HCFC-123
Halotron I	HCFC-123
Helmitin Solvant C678	MCF
HFC 245fa	HFC-245fa
HFC-125	HFC-125
HFC-134a	HFC-134a
HFC-143a	HFC-143a
HFC-152a	HFC-152a
HFC-23	HFC-23
HFC-32	HFC-32
Hot Shot	HCFCs
HyperClean Circuit Cleaner	HCFCs
HX4	HFC-125/HFC-143a/HFC-134a/HFC-32
Isceon 11	CFC-11
Isceon 113	CFC-113
Isceon 114	CFC-114
Isceon 115	CFC-115
Isceon 12	CFC-12
Isceon 13	CFC-13
Isceon 22	HCFC-22
Isceon 49	HFC-134a/FC-218/isobutane (88/9/3)
Isceon 500	CFC-12
Isceon 502	CFC-115
Isceon 69L	HCFC-22
Isceon 69S	HCFC-22
JS-536B	MCF
K1144 Ultra Sol	MCF
K12	CFC-12
K120	MCF
K120 N.F.S. Solvant inflammable	MCF
K120 Solvent	MCF
K7 FC-700 nettoyeur pour tissus	MCF

Vaisan Chamical 12	GEC 12
Kaiser Chemical 12	CFC-12
Kaltron	CFC-113
Kaltron 11	CFC-11
Kanden Triethane	MCF
Keykleen 503	MCF
Khladon	CFC-11
KLEA 134a	HFC-134a
Klea 23	HFC-23
KLEA 32	HFC-32
Klea 404A	HFC-125/HFC-143a/HFC-134a(44/52/4)
Klea 407A	HFC-32/HFC-125/HFC-134a (20/40/40)
Klea 407B	HFC-32/HFC-125/HFC-134a (10/70/20)
Klea 407C	HFC-32/HFC-125/HFC-134a (23/25/52)
Klea 407D	HFC-32/HFC-125/HFC-134a(15/15/70)
Klea 410A	HFC-32/HFC-125(50/50)
Klea 507	HFC-125/HFC-143a (50/50)
Klea 508	HFC-23/FC-116(39/61)
Klea-407d	HFC-32/HFC-125/HFC-134a(15/15/70)
Klea-5R3	HFC-23/HFC-116(39/61)
Kodak Movie Film Cleaner	MCF
Konden Triéthane	MCF
Korfron 11	CFC-11
Korfron 12	CFC-12
Korfron 141b	HCFC-141b
Korfron 142b	HCFC-142b
Korfron 22	HCFC-22
Krylon Dulling Spray	MCF
Laser Dry Spot Liquid Buffer	MCF
Ledon 11	CFC-11
Ledon 113	CFC-113
Ledon 114	CFC-114
Ledon 12	CFC-12
Loctite 75559	MCF
Loctite Safety Solvent	MCF
Mafron 11	CFC-11
Mafron 12	CFC-12
Magicdry MD-	CFC-113
MCF	MCF
Meforex 55	R-125/143a/134a(44/52/4)
Meforex 57	R-125/143a(50/50)
Meforex 98	R-32/125(50/50)
Meforex 123	HCFC-123
Meforex 124	HCFC-124
	l.

Meforex 125	HFC-125
Meforez 134a	HFC-134a
Meforex 141b	HCFC-141b
Meforex 142b	HCFC-142b
Meforex 143a	HFC-143a
Methane dichlorodifluoro	CFC-12
Methane Tetrachloride	CT
Methane tetrachloro	CT
Meth-O-Gas 100	MBr
Meth-O-Gas Q	MBr
Methyl bromide	MBr
Methyl chloroform	MCF
Methyl Chloroform Technical	MCF
Methyl Chloroform Low Stabilized	MCF
Methyl monobromide	MBr
Methylene chlorobromide	BCM
Methyltrichloromethane	MCF
Microduster TX104	CFC-12
Microduster TX104a	CFC-12
Microduster TX600	CFC-12
Minus 62 Instant Chiller # 1669-16S	CFC-12
Molecular N.F. Cleaner/Degreaser	MCF
Molybkombin UMFT4	MCF
Molybkombin UMFT4 Spray	MCF
Monobromomethane	MBr
Monochloromonobromomethane	BCM
Monochloropentafluroethane	CFC-115
MS-122N	HCFC-141b
MS-136N	MCF
MS-143	HCFC-141b
MS-170 1,1,1-Trichloroethane Solv.	MCF
MS-180 NR.226 Electro Contact	CFC-113
MS-240 Quick-Freeze	CFC-12
MS-938	HCFC-141b
MU711	HCFC-21
MU711	HCFC-22
MV3	MCF
NAF P-III	HCFC-123
NAF S-III	HCFC-22
Nanofron	CFC-113
NC-123	MCF
NCI-C04626	MCF
Necatorina	CT

Nettoyant B-70	MCF
Nettoyeur à contact NR226	CFC-113
Nettoyeur à tissus	MCF
Nettoyeur contact # 1328 Krylon	MCF
Nettoyeur H et M	MCF
New Dine T	MCF
Niax-11	CFC-11
Niax 12	CFC-12
Niax Blowing Agent 12	CFC-12
Nicer'n ice 99900403	CFC-12
Nicrobraz Cement xxx	MCF
Nilos Solution xxx xx	MCF
Norchem xx xxx xxx	MCF
Oxyfume 12	CFC-12
Oxyfume 2000	HCFC-124
Oxyfume 2002	HCFC-124
PC 81x	MCF
Penngas 2	HCFCs
Pentafluoroethylchloride	CFC-115
Perchloromethane,	CT
Perfluoroethyl chloride	CFC-115
Picrin	MCF
Polioi Poliuretano ICI	HCFC-141b
Precision Duster	CFC-12
Precision Duster Non-Liquid	CFC-12
Prelete	MCF
Proact	MCF
Propaklone	MCF
Propellant 11	CFC-11
Propellant 114	CFC-114
Propellant 115	CFC-115
Propellant 12	CFC-12
Propulseur 114	CFC-114
Propulseur 115	CFC-115
Propulseur 12	CFC-12
Quick Freeze Shandon	CFC-12
R-113	CFC-113
R-114B2 (1 and 2)	CFC-114
R-115	CFC-115
R-134a	HFC-134a
R-401A	HCFCs
R-401B	HCFCs
R-401C	HCFCs

D 1001	HODG 22
R-402A	HCFC-22
R-402B	HCFC-22
R-403A	HCFC-22
R-403B	HCFC-22
R-405A	HCFCs
R-406A	HCFCs
R-408A	HCFC-22
R-409A	HCFCs
R-409B	HCFCs
R-411A	HCFC-22
R-411B	HCFC-22
R-412A	HCFCs
R-414A	HCFCs
R-414B	HCFCs
R-415A	HCFC-22
R-500	CFC-12
R-501	CFC-12
R-502	CFC-115
R-503	CFC-13
R-504	CFC-115
R-505	CFC-12
R-506	CFC-114
R-509A	HCFC-22
R11	CFC-11
R12	CFC-12
RCRA Waste Number 226	MCF
Reclin 507	HFC-125/HFC-143a(50/50)
Refrigerant 11	CFC-11
Refrigerant 113	CFC-113
Refrigerant 114	CFC-114
Refrigerant 115	CFC-115
Refrigerant 12	CFC-12
Refrigerant 500	CFC-12
Refrigerant 501	CFC-12
Refrigerant 502	CFC-115
Refrigerant 504	CFC-115
Refrigerant/Aerosol MS-240	CFC-12
Roberts 931 Seaming Adhesive	MCF
Rolyen Cold Spray	CFC-12
Rust Inhibitor B007	MCF
S.E.M.I Grade	
	MCF MCF
Safety Solvent (Agreed) 75 562	
Safety Solvent (Aerosol) 75-563	MCF

Safety Solvent (Aerosol) 755-59	MCF
Safety Solvent 755-71	MCF
Safety Solvent 75563	MCF
Sanfax Pick-One	MCF
Sérétine	CT
Shine Pearl	MCF
SIENKATANSO	CT
Solkane 123	HCFC-123
Solkane 141b	HCFC-141b
Solkane 141b DH	HCFC-141b
Solkane 141b MA	HCFC-141b
Solkane 141b WE	HCFC-141b
Solkane 142b	HCFC-142b
Solkane 152a	HFC-152a
Solkane 22	HCFC-22
Solkane 22 / 142b	HCFCs
Solkane 404A	HFC-125/143a/134a(44/52/4)
Solkane 406A	HCFC-22
Solkane 407C	HFC-32/125/134a(23/25/52)
Solkane 409A	HCFC-22
Solkane 410	HFC-32/125(50/50)
Solkane 507	MCF
Solkane XG87	HFC-134a/HFC-152a (87/13)
Solvethane	MCF
Sonic Solve	CFC-113
Sonic Solve xxx	MCF
Spotchek Cleaner/Remover	MCF
SS-25	MCF
Sunlovely	MCF
Super Solution	MCF
Suva 95	HFC-23/FC-116(46/54)
Suva 123	HCFC-123
Suva 124	HCFC-124
Suva 125	HCFC-125
Suva 134a	HFC-134a
Suva 9000	HFC-32/HFC-125/HFC-134a (23/25/52)
Suva 9100	HFC-32/HFC-125(45/55)
Suva HP62	HFC-125/HFC-134a/HFC-143a (44/4/52)
Suva HP80	HCFC-22
Suva HP81	HCFC-22
Suva MP39	HCFCs
Suva MP52	HCFCs
Suva MP66	HCFCs
	1

Swish	MCF
Tafclen	MCF
Taisoton 12	CFC-12
Taisoton 22	HCFC-22
TCTFE	CFC-113
Tempilaq	MCF
Terr-O-Gas	MBr
Tetrachloromethane	CT
Tetrachlorure de carbon	CT
Tetrachlorure de carbone ACS	CT
Three Bond 1802	MCF
Three Bond xxx	MCF
Three One-A	MCF
Three One-AH	MCF
Three One-EX	MCF
Three One-F	MCF
Three One-HS	MCF
Three One-R	MCF
Three One-S	MCF
Three One-T	MCF
Three One-TH	MCF
Tipp-Ex	MCF
Toyoclean	MCF
Toyoclean AL	MCF
Toyoclean ALS	MCF
Toyoclean EE	MCF
Toyoclean EM	MCF
Toyoclean HS	MCF
Toyoclean IC	MCF
Toyoclean NH	MCF
Toyoclean O	MCF
Toyoclean SE	MCF
Toyoclean T	MCF
Triethane PPG	MCF
Tri-Ethane	MCF
Trichloro-1,1,1 ethane	MCF
Trichloroethane	MCF
Trichlorofluorocarbon	CFC-11
Trichlorofluoromethane	CFC-11
Trichloromethylfluoride	CFC-11
Trichloromonofluoromethane	CFC-11
Trichlorotrifluoromethane	CFC-113
Urethane Resine	HCFC-141b
Civilatio Restite	1101 0 1110

Vertrel XF	HFC-43-10 mee
Wax solvent 83	MCF
Wei T'o cleaning solution	HCFC-141b
Wei T'o liquefied (22) gas deacidification solution	HCFC-22
Wei T'o soft spray	HCFC-141b
Wei T'o solution #2	HCFC-141b

# Appendix B

List of HS Codes for Most Common ODS	
HS Code Description	
2903.14.00.00	Carbon tetrachloride
2903.19.00.00	Halogenated derivatives of hydrocarbons Saturated chlorinated derivatives of acyclic hydrocarbons: - Other
2903.29.00.00	Other - Fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons
2903.39.00.00	Halogenated derivatives of hydrocarbons Fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons: - Other
2903.39.00.22	Halogenated derivatives of hydrocarbons Fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons: - Other - Fluorinated hydrocarbons: - 1,1,1,2-tetrafluoroethane
2903.39.00.29	Halogenated derivatives of hydrocarbons Fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons: - Other - Fluorinated hydrocarbons: - Other
2903.39.00.90	Halogenated derivatives of hydrocarbons Fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons: - Other - Other
2002.71.00.00	Chlorodifluoromethane
2903.71.00.00	HCFC-22
2002 72 00 00	Dichlorotrifluoromethanes
2903.72.00.00	HCFC-123, HCFC-123a, HCFC-123b
2903.73.00.00	Dichlorofluoroethanes
2903.73.00.00	HCFC-141, HCFC-141b
2903.74.00.00	Chlorodifluoroethanes
2903.74.00.00	HCFC-142, HCFC-142b
2903.75.00.00 Did	Dichloropentafluoropropanes
2903.73.00.00	HCFC-225, HCFC-225ca, HCFC-225cb
2903.76.00.00	Bromochlorodifluoromethane, bromotrifluoromethane and dibromotetrafluoromethanes
	Halon 1211, Halon 1301, Halon 2402
	Other, perhalogenated only with fluorine and chlorine
2903.77.00.00	Chlorofluorocarbons (CFCs, e.g., CFC-11, CFC-12, CFC-113, CFC-114, CFC-115, etc.)
	Other - All other HCFCs not listed elsewhere (e.g., HCFC-21, HCFC-31, HCFC-121, HCFC-122, etc.)
2002 70 00 00	Hydrobromofluorocarbons
2903.79.00.00	All bromofluorocarbons other than Halon 1211, Halon 301 and Halon 2402
	Bromochloromethane (Halon 1011)
3808.92.10.10	Fungicides - In packages of a gross weight not exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane

3808.92.20.10	Fungicides - In bulk or in packages of a gross weight exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane: - Containing bromomethane (methyl bromide) or bromochloromethane
3808.93.10.10	Herbicides, anti-sprouting products and plant-growth regulators - In packages of a gross weight not exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3808.93.20.10	Herbicides, anti-sprouting products and plant-growth regulators - In bulk or in packages of a gross weight exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3808.94.10.10	Disinfectants - In packages of a gross weight not exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3808.94.20 10	Disinfectants - In bulk or in packages of a gross weight exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3808.99.10.10	Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up in forms or packings for retail sale or as preparations or articles (for example, sulphur-treated bands, wicks and candles, and fly-papers). In packages of a gross weight not exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3808.99.20.10	In bulk or in packages of a gross weight exceeding 1.36 kg each - Containing bromomethane (methyl bromide) or bromochloromethane
3813.00.00.10	Preparations and charges for fire-extinguishers; charged fire-extinguishing grenades Containing bromochlorodifluoromethane, bromotrifluoromethane or dibromotetrafluoroethanes
3813.00.00.20	Preparations and charges for fire-extinguishers; charged fire-extinguishing grenades Containing methane, ethane or propane hydrobromofluorocarbons (HBFCs)
3813.00.00.30	Preparations and charges for fire-extinguishers; charged fire-extinguishing grenades Containing methane, ethane or propane hydrochlorofluorocarbons (HCFCs)
3813.00.00.40	- Containing bromochloromethane
3814.00.00.10	Organic composite solvents and thinners, not elsewhere specified or included; prepared paint or varnish removers Containing methane, ethane or propane chlorofluorocarbons (CFCs), whether or not containing hydrochlorofluorocarbons (HCFCs)
3814.00.00.20	- Containing methane, ethane or propane hydrochlorofluorocarbons (HCFCs), but not containing chlorofluorocarbons (CFCs)
3814.00.00.30	- Containing carbon tetrachloride, bromochloromethane or 1,1,1-trichloroethane (methyl chloroform)
3824.71.00.00	Mixtures containing halogenated derivatives of methane, ethane or propane: - Containing chlorofluorocarbons (CFCs), whether or not containing hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs)
3824.72.00.00	Mixtures containing halogenated derivatives of methane, ethane or propane: - Containing bromochlorodifluoromethane, bromotrifluoromethane or dibromotetrafluoroethanes

3824.73.00.00	Mixtures containing halogenated derivatives of methane, ethane or propane: - Containing hydrobromofluorocarbons (HBFCs)
3824.74.00.00	Mixtures containing hydrochlorofluorocarbons (HCFCs), whether or not containing perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs), but not containing chlorofluorocarbons (CFCs)
3824.75.00.00	Mixtures containing carbon tetrachloride
3824.76.00.00	Mixtures containing, 1,1,1-trichloroethane (methyl chloroform)
3824.77.00.00	Mixtures containing bromomethane (methyl bromide) or bromochloromethane
3824.78.00.00	Mixtures containing halogenated derivatives of methane, ethane or propane: - Containing perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs), but not containing chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs)
3824.79.00.00	Mixtures containing other halogenated derivatives of methane, ethane or propane

# **Appendix C**

#### **Examples of Products that may Contain Ozone-depleting Substances and Hydrofluorocarbons**

Some products containing or designed to contain HFCs will be controlled under the *Ozone-depleting Substances* and *Halocarbon Alternatives Regulations* starting on January 1, 2019.

#### Aerosol spray cans containing:

- a) CFCs prohibited
- b) pressurized container containing 2 kg or less of any HCFC prohibited
- c) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- d) 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 prohibited as of January 1, 2019 [ODSHAR, Subsection 64.6(1)].

Some products in an aerosol spray can use CFCs or HCFCs as a propellant or as a slurrying agent, e.g., deodorants, hair sprays, party string, and antiperspirants.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, Subsection 13(1)]; 2 kg or less of any HCFC [ODSHAR, Subsection 42(1)] or 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 [ODSHAR, Subsection 64.6(1)].

#### Automotive air conditioning refill kits containing:

- a) CFCs prohibited
- b) HFCs prohibited

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

It is prohibited to import: pressurized containers containing any CFC [ODSHAR, Subsection 13(1)].

These kits might include small containers of refrigerants used to recharge automobile air-conditioning units and contain HFCs in small non-refillable containers. It is prohibited to import any HFC for use as refrigerant that is not stored in a refillable container [ODSHAR, section 64.3].

#### **Cooling sprays containing:**

- a) CFCs prohibited
- b) pressurized container containing 2 kg or less of any HCFC prohibited
- c) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- d) 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 prohibited as of January 1, 2019 [ODSHAR, Subsection 64.6(1)].

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. Dust-off sprays, sold in standard aerosol spray cans, have many uses and are usually sold through:

- a) scientific, laboratory and medical supply companies;
- b) art supply stores;
- c) camera, photographic and optical equipment supply companies;
- d) electrical and electronic supply companies;
- e) hobby shops;
- f) audio and video retail and service shops; and

g) computer stores.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)]; 2 kg or less of any HCFC [ODSHAR, subsection 42(1)] or 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 [ODSHAR, Subsection 64.6(1), with exceptions in Subsection 64.6(2)].

#### Lubricant, coating or cleaning solvents for electrical or electronic equipment containing:

- a) CFCs prohibited
- b) pressurized container containing 2 kg or less of any HCFC prohibited
- c) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020.

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

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)] or 2 kg or less of any HCFC [ODSHAR, subsection 42(1)] or 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 [ODSHAR, Subsection 64.6(1), with exceptions in Subsection 64.6(2)].

#### **Lubricants in mining operations containing:**

- a) CFCs-prohibited
- b) pressurized container containing 2 kg or less of any HCFC prohibited
- c) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- d) 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 prohibited as of January 1, 2019 [ODSHAR, Subsection 64.6(1)].

Lubricants have been developed to safeguard open gears, cables, and wire ropes on large machinery for use in mining operations. CFC or HCFC propellants are used in this application because they are non-flammable and the CFCs or HCFCs are generally recognized to be non-toxic for humans but are toxic for the environment.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)] or 2 kg or less of any HCFC [ODSHAR 1998, subsection 42(1)] or 2kg or less of an HFC when the HFC is used as a propellant and has a global warming potential greater than 150 [ODSHAR, Subsection 64.6(1), with exceptions in Subsection 64.6(2)].

#### Mould release agents containing:

- *a*) CFCs prohibited
- b) pressurized container containing 2 kg or less of any HCFC prohibited
- c) HCFCs other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- *d*) pressurized container containing 2 kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150 allowed [ODSHAR, Subsection 64.6(2)].

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

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)].

This type of spray can be imported in pressurized containers containing any HCFC other than HCFC-22, HCFC-141b or HCFC-142b [ODSHAR, paragraph 42(2)(a)] until December 31, 2019 [ODSHAR, subsection 43(1)].

This type of spray can be imported in pressurized container containing 2 kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150, as it is an exception under ODSHAR, Subsection 64.6(2).

#### Pest control products containing:

- a) CFCs prohibited
- b) pressurized container of 2 kg or less of HCFC prohibited
- c) pressurized container of more than 2 kg of HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020.
- d) Methyl bromide a permit is required
- *e*) pressurized container containing 2 kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150 restricted.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)] or 2 kg or less of any HCFC [ODSHAR 1998, subsection 42(1)].

The import of these products is prohibited unless it contains methyl bromide. In this case the importer must have an import permit for critical use, quarantine application, pre-shipment application or emergency use.

This type of spray can contain HFCs in pressurized container containing 2 kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150. As of January 1, 2019, it is allowed to be imported only if it is for use as a pesticide near electrical wires or in aircraft or a certified organic-use pesticide [ODSHAR, Subsection 64.6(2)].

#### Plastic foams, including rigid foams (e.g., foam insulation) and flexible foams (e.g., carpet underpadding)

- a) Plastic foams containing CFCs prohibited
- b) Flexible plastic foam containing HCFCs prohibited
- c) Plastic foam or rigid foam manufactured with an HFC listed in Table 4 of Schedule 1 of the ODSHAR was used as a blowing agent, and where the HFC has a global warming potential greater than 150 prohibited as of January 1, 2021.

Rigid foam containing HCFCs other than HCFC-22, HCFC-141b and HCFC-142b – allowed until December 31, 2019, and prohibited as of January 1, 2020. This type of product cannot be imported if containing any CFC [ODSHAR, subsection 13(1)]; or any flexible plastic foam for which an HCFC was used as a foaming agent [ODSHAR, section 41].

This type of product can be imported in pressurized containers containing any HCFC in rigid foam other than HCFC-22, HCFC-141b and HCFC-142b [ODSHAR, paragraph 42(2)(f)].

# "Polyol" (manufacture or importation) containing HCFC other than HCFC-22, HCFC-141b and HCFC-142b, or an HFC

A polyol is a mixture of polyalcohol, which is one component of a two component system used to manufacture polyurethane foams in which HCFCs or HFCs are used as foaming agents. The polyol mixture is considered a product containing or designed to contain ODS or HFCs. This type of mixture is a polyurethane prepolymer.

The importation and manufacture of polyol containing an HCFC other than HCFC-22, HCFC-141b and HCFC-142b are not controlled in Canada until January 1, 2020. However, the importation of HCFC-141b, the only HCFC used in the manufacture of polyol, is prohibited for that purpose. After January 1, 2020, it is prohibited to import a product that contains or is designed to contain any HCFC [ODSHAR, paragraph 43(1)].

The importation and manufacture of polyol containing an HFC listed in Table 4 of Schedule 1 of the ODSHAR used as a blowing agent, and where the HFC has a global warming potential greater than 150 is prohibited as of January 1, 2021.

#### **Protective sprays for documents containing:**

- *a*) CFCs prohibited
- b) HCFCs other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- c) HFCs restricted as of January 1, 2019.

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. It provides a very fine and uniform aerosol and it does not react with the photographic emulsion.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)].

This type of spray can be imported in pressurized containers containing any 2 kg or less of an HCFC other than HCFC-22, HCFC-141b or HCFC-142b [ODSHAR, paragraph 42(2)(c)] until its exemption end on January 1, 2020 [ODSHAR, subsection 43(1)].

Pressurized containers containing 2kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150 are prohibited as of January 1, 2019, but the prohibition does not apply to pressurized containers that contain a document preservation agent (exception under the ODSAHR, paragraph 64.6(2)(c)).

#### Refrigerant R-412A and refrigerant R-509A:

The import of pressurized containers containing these two products is allowed [ODSHAR, paragraphs 42(2)(g) and 42(2)(h)] until their exemption ends on January 1, 2020 [ODSHAR, subsection 43(1)].

# Domestic and commercial refrigeration and air conditioning/heat pump equipment containing or designed to contain:

- *a*) CFCs prohibited
- b) HCFC-22, HCFC-141b and HCFC-142b prohibited
- c) HCFCs other than HCFC-22, HCFC-141b and HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- d) HFCs used as a refrigerant restricted.

Used refrigeration equipment (for example refrigerators, freezers, dehumidifiers, water coolers, ice machines, air conditioning and heat pump units) may have a compressor containing CFCs. Even if the compressor has been emptied of the CFCs, the compressor is still designed to contain CFCs. Therefore, the importation of this equipment is prohibited [ODSHAR, subsection 13(1)].

If the products contain or are designed to contain CFCs that are personal or household effects and are intended for the importer's personal use only, then their importation is allowed [ODSHAR, paragraph 13(2)(c)].

If the products contain or are designed to contain HFCs, depending on the date and the global warming potential of the HFC, certain types of equipment will be prohibited, as listed in Schedule 1.1 if the ODSHAR, unless it is destined for residential use and is a personal effect of the importer [ODSHAR, subsections 64(1) and (2)].

# Automobile and truck air conditioning units (whether or not incorporated in vehicles) containing or designed to contain CFCs - prohibited

Car compressors from used cars often contain CFCs. Even if the compressor has been emptied of the CFCs, the compressor is still designed to contain CFCs. Therefore, the importation of the equipment is prohibited [ODSHAR, subsection 13(1)].

#### Exempted:

- a) products that contain or are designed to contain CFCs that are imported and that are personal or household effects and intended for the importer's personal use only [ODSHAR, paragraph 13(2)(c)];
- b) aircraft, ships or any vehicle manufactured before January 1, 1999 [ODSHAR, paragraph 13(2)(b)].

# Automobiles equipped with air conditioning systems containing or designed to contain an HFC -2021 and subsequent model years

Beginning with the 2021 model year, it is prohibited for any person to import an automobile equipped with an air-conditioning system that contains or is designed to contain an HFC that is set out in Table 4 of Schedule 1 and is to be used as a refrigerant if the global warming potential of the refrigerant used in that system is greater than 150 [ODSHAR subsection 64.4(3)].

This prohibition does not apply if the automobile is destined for the the importer's personal use [ODSHAR subsection 64.4(3)].

#### **Signal horns containing:**

- a) CFCs prohibited
- b) 2 kg or less of any HCFC prohibited
- c) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- d) HFCs used as a propellant restricted.

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.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)] or 2 kg or less of any HCFC [ODSHAR, subsection 42(1)].

Pressurized containers containing 2kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150 are prohibited as of January 1, 2019.

#### Spinneret lubricant or cleaning agent used in the manufacture of synthetic fibers containing:

- a) CFCs prohibited
- b) HCFCs other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020.

A spinnerette is a special form of extrusion head for producing fibers.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)].

This type of spray can be imported in pressurized containers containing any HCFC other than HCFC-22, HCFC-141b or HCFC-142b [ODSHAR, paragraph 42(2)(b)] until its exemption ends on January 1, 2020 [ODSHAR, subsection 43(1)].

Pressurized containers containing 2kg or less of an HFC, where the HFC is used as a propellant and has a global warming potential greater than 150, are prohibited as of January 1, 2019, but the prohibition does not apply to pressurized containers that contain a spinneret lubricant or cleaning agent used in the manufacture of synthetic fibers (exception under the ODSAHR, paragraph 64.6(2)(b)).

#### **Total flooding system containing:**

- a) 2 kg or less of any HCFC for residential use prohibited;
- b) more than 2 kg of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020;
- c) halons for use in aircraft or military ships or military vehicles exempted;
- *d)* HCFCs other than HCFC-22, HCFC-141b or HCFC-142b for non-residential use (fire extinguishing) exempted.

A total flooding system releases an extinguishing agent (gas, foam) into a confined space to extinguish a fire within that space. This type of system is also designated as Total Flooding Extinguishing System or Total Flooding Fixed System. Total flooding systems are mainly used in computer room or where sensitive instruments are used.

The importation of a total flooding system, if it contains halons, is authorized only in cases where the equipment is to be used in aircraft or military ships or military vehicles. In such cases, the container serves not only to transport or store the controlled substance but is an integral part of its use, such that the entire system is considered a product containing or designed to contain ODS [ODSHAR, paragraph 13(2)(a)].

Fire extinguishing systems in a pressurized container containing 2 kg or less of an HCFC other than HCFC-22, HCFC-141b or HCFC-142b for non-residential applications are exempted and can be imported [ODSHAR, paragraph 42(2)(d)].

The import of fire extinguishing systems containing HCFC for residential applications is prohibited if they are pressurized containers that contain 2 kg or less of any HCFC [ODSHAR, subsection 42(1)].

#### Wasp, hornet or bear spray containing:

- a) CFCs prohibited
- b) HCFCs other than HCFC-22, HCFC-141b or HCFC-142b allowed until December 31, 2019, and prohibited as of January 1, 2020
- c) HFCs used as a propellant restricted.

This type of spray cannot be imported in pressurized containers containing any CFC [ODSHAR, subsection 13(1)].

This type of spray can be imported in pressurized containers containing 2 kg or less of any HCFC other than HCFC-22, HCFC-141b or HCFC-142b [ODSHAR, paragraph 42(2)(e)] until its exemption end on January 1, 2020 [ODSHAR, subsection 43(1)].

Pressurized containers containing 2kg or less of an HFC where the HFC is used as a propellant and has a global warming potential greater than 150 are prohibited as of January 1, 2019.

# **Appendix D**

**Example: Content of Permit for HCFCs Issued by Environment and Climate Change** 

Canada

Reference: ODSHAR-PER-YY-0XX

Company name
Contact name
Title of contact person
Address
City, Province
Postal Code

**Permit to Import Hydrochlorofluorocarbons (HCFCs)** Pursuant to Section 69 of *the Ozone depleting Substances and Halocarbon Alternatives Regulations* of the *Canadian Environmental Protection Act, 1999* 

In response to your *Application for a Permit to Import a Substance on Schedule 1*, dated DATE, I authorize COMPANY NAME to import for USE (IF APPLICABLE) the following calculated level of reclaimed hydrochlorofluorocarbons from the United States of America for the year 20XX:

**Controlled substance:** HCFC-22

Quantity: XX kg

**ODP:** XX

Calculated level: XX kg

The permit is in effect as of today and will end on December 31, 2019.

The issuance of this permit is accompanied by certain obligations and requirements. Please read the attachment for more details. A permit issued under the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* does not remove or override a person's or company's obligation to comply with other legislation in Canada.

If you have any questions concerning the *Ozone-depleting Substances Regulations and Halocarbon Alternatives Regulations*, please contact <u>ec.gestionhalocarbureshalocarbonsmanagement.ec@canada.ca</u>.

Director's name and signature
Director
Chemicals Production Division
Environment Canada
On behalf of the Minister of the Environment
Attachment

Example: Content of HCFC Allowance Issued by Environment and Climate Change

Canada

Reference: ODSHAR-ALL-HCFC-19-00001

Company name
Contact name
Title of contact person
Address
City, Province
Postal Code

Consumption Allowance of Hydrochlorofluorocarbons (HCFCs) Pursuant to subsection 55(3) of the Ozone-depleting Substances and Halocarbon Alternatives Regulations of the Canadian Environmental Protection Act, 1999.

The purpose of this letter is to inform COMPANY NAME of its consumption allowance for HCFCs for the calendar year 2017. According to the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* that came into force on December 29, 2016, the annual consumption allowances for 2017 are calculated based on the HCFC consumption allowance granted for 2014 for the cooling sector multiplied by 28.57%.

The consumption allowance for COMPANY NAME in 2017 has been calculated to be: XX ODP-kg

According to subsection 38(1) of the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, HCFCs imported under a consumption allowance must be used or sold as a refrigerant or as a fire-extinguishing agent or be exported.

According to section 39, any HCFC that is imported for use as a refrigerant must be stored in a refillable container.

According to subsection 55(2) of the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, permanent and temporary transfers that have been approved by the Minister will be subtracted or added, as the case may be, for the purpose of calculating a person's consumption allowance of HCFCs.

According to subsection 38(2) of the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, as of January 1, 2020, only HCFC-123 to be used or sold as a refrigerant or to be exported can be imported with a consumption allowance. As of January 1, 2030, no person shall import any HCFC with a consumption allowance.

If you have any questions concerning the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, please contact <u>ec.gestionhalocarbureshalocarbonsmanagement.ec@canada.ca</u>.

Director's name and signature Director Chemicals Production Division Environment Canada On behalf of the Minister of the Environment

Attachment

# Example: Content of HFC Allowance Issued by Environment and Climate Change Canada Reference: ODSHAR-ALL-HFC-19-00001

Company name
Contact name
Title of contact person
Address
City, Province
Postal Code

#### Consumption Allowance for Hydrofluorocarbons (HFCs)

Pursuant to section 65.06 of the Ozone-depleting Substances and Halocarbon Alternatives Regulations of the Canadian Environmental Protection Act, 1999

The purpose of this letter is to inform COMPANY of its consumption allowance for HFCs for the calendar year 2019. According to the *Regulations Amending the Ozone-depleting Substances and Halocarbon Alternatives Regulations* that came into force on April 16, 2018, the annual consumption allowance for each company for 2019 is calculated by reducing their base consumption by 10%.

The consumption allowance for COMPANY in 2019 has been calculated to be:

#### X tonnes of CO<sub>2</sub> equivalent

According to section 64.3, any HFC that is imported for use as a refrigerant must be stored in a refillable container.

According to subsection 65.06(3) of the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, permanent and temporary transfers that have been approved by the Minister will be subtracted or added, as the case may be, for the purpose of calculating a person's consumption allowance of HFCs.

If you have any questions concerning the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, please contact ec.gestionhalocarbureshalocarbonsmanagement.ec@canada.ca.

Nicole Folliet
Directrice / Director
Division de la production des produits chimiques / Chemical Production Division
Environnement Canada / Environment Canada

Au nom de la ministre de l'Environnement / On behalf of the Minister of the Environment

Example: Content of Permit for HFCs Issued by Environment and Climate Change

Canada

Reference: ODSHAR-PER-YY-0XX

Company name
Contact name
Title of contact person
Address
City, Province
Postal Code

#### Permit to import Hydrofluorocarbons (HFCs)

Pursuant to Section 69 of the Ozone-depleting Substances and Halocarbon Alternatives Regulations of the Canadian Environmental Protection Act, 1999

In response to your *Application for a Permit to Import a Substance on Schedule 1*, dated July 25, 2018, I authorize Arkema Canada Inc. to import the following quantity of virgin hydrofluorocarbon from France for the year 2018:

Substance	Quantity
	Quantité
HFC-134a	7 000 kg
HFC-125	35 200 kg
HFC-143a	41 600 kg

The permit is in effect as of today and will expire on December 31, 2018.

The issuance of this permit is accompanied by certain obligations and requirements. Please read the attachment for more details. A permit issued under the *Ozone-depleting Substances and Halocarbon Alternatives Regulations* does not remove or override a person's or company's obligation to comply with other legislation in Canada.

If you have any questions concerning the *Ozone-depleting Substances and Halocarbon Alternatives Regulations*, please contact <u>ec.gestionhalocarbureshalocarbonsmanagement.ec@canada.ca</u>.

Nicole Folliet
Directrice / Director
Division de la production des produits chimiques / Chemical Production Division
Environnement Canada / Environment Canada

Au nom de la ministre de l'Environnement / On behalf of the Minister of the Environment

References	
Issuing Office	Other Government Departments Programs Unit Program Policy and Management Division Commercial Program Directorate
Headquarters File	68464
Legislative References	Canada Border Services Agency Act Customs Act Canadian Environment Protection Act, 1999 Ozone-depleting Substances and Halocarbon Alternatives Regulations Reporting of Exported Goods Regulations
Other References	<u>D17-1-4</u> , <u>D17-1-21</u> , <u>D22-1-1</u>
Superseded Memorandum	D19-7-2 dated April 25, 2017