

Customs Quick Tool for Screening ODS

1. Compare the packing list, bill of entry, & the country of origin to ensure they match.
2. Ensure the customs code on the entry matches the description on the invoice.
3. Compare the invoice & the bill of lading to the outward bound ship's manifest.
4. Verify the country of origin. Is the country a party to the Montreal Protocol & its amendments?
5. Verify that the importer & place of business actually exist.
6. Contact the licensing agency to verify that the importer is licensed to import that specific material.
7. Note the quantity, source, & destination of the ODS. These will serve as important clues that may provide indicators to prohibit illegal importations.
8. Verify that the container number actually exists. Discovery of fictitious container numbers have led to the disclosure of illegal trade.
9. Review all the necessary documents, if there is something that doesn't match, it may be an illegal shipment. Inspect the merchandise.
10. Check packaging, size, & shape and label on container.
11. Identify the name & description of the chemical, which should match ALL paperwork.
12. Seize the material if the importer does not have the import/export license.
13. Coordinate this seizure with the customs officer, environment agency, & the prosecution agency. Anyone involved with the seizure may be called to testify in court, so take good notes.

Smuggling Schemes

- Front Door Smuggling
- Mislabelling as non-ODS
- Mislabelling as used, recovered, reclaimed or recycled ODS
- Concealment & double layering of ODS
- Diverting ODS from transshipment harbours or ODS produced for export-free trade zones
- Declared as equipment



Stop the Smuggling of Ozone Depleting Substances

www.unep.org/ozonaction

| Ozone Depleting Substances ODS | | | | | | | |
|---|-------------------------------|---|--------------------------------|----------------------------------|--------------------|-------------------|--|
| Name/Group | Chemical name | Formula | ASHRAE # for refrigerants only | ASHRAE ¹ safety group | CAS ² # | UN ³ # | HS code Since 1 Jan 2012 / Until 31 Dec 2011 |
| Annex A, Group I (CFCs) | | | | | | | |
| CFC-11 | Trichlorofluoromethane | CFCl ₃ | R-11 | A1 | 75-69-4 | 1017 | 2903.77 / 2903.41 |
| CFC-12 | Dichlorodifluoromethane | CF ₂ Cl ₂ | R-12 | A1 | 75-71-8 | 1028 | 2903.77 / 2903.42 |
| CFC-113 | Trichlorotrifluoroethanes | C ₂ F ₃ Cl ₃ | R-113 | A1 | 76-13-1 | | 2903.77 / 2903.43 |
| CFC-114 | Dichlorotetrafluoroethanes | C ₂ F ₂ Cl ₂ | R-114 | A1 | 76-14-2 | 1958 | 2903.77 / 2903.44 |
| CFC-115 | Chloropentafluoroethane | CClF ₂ CF ₃ | R-115 | A1 | 76-15-3 | 1020 | 2903.77 / 2903.44 |
| Annex A, Group II (Halons) | | | | | | | |
| Halon-1211 | Bromochlorodifluoromethane | CF ₂ BrCl | R-12B1 | | 353-59-3 | 1974 | 2903.76 / 2903.46 |
| Halon-1301 | Bromotrifluoromethane | CF ₃ Br | R-13B1 | | 75-63-8 | 1009 | 2903.76 / 2903.46 |
| Halon-2402 | Dibromotetrafluoroethane | C ₂ F ₄ Br ₂ | R-114B2 | | 124-73-2 | | 2903.76 / 2903.46 |
| Annex B, Group I (Other CFCs) | | | | | | | |
| CFC-13 | Chlorotrifluoromethane | CF ₃ Cl | R-13 | A1 | 75-72-9 | | 2903.77 / 2903.45 |
| Annex B, Group II | | | | | | | |
| Tetrachloromethane or carbon tetrachloride | | CCl ₄ | | B1 | 56-23-5 | 1864 | 2903.14 / 2903.14 |
| Annex B, Group III | | | | | | | |
| 1,1,1-trichloroethane or methyl chloroform | | C ₂ H ₃ Cl ₃ | R-140a | | 71-55-6 | 2831 | 2903.19 / 2903.19 |
| Annex C, Group I (HCFCs) | | | | | | | |
| HCFC-22 | Chlorodifluoromethane | CHF ₂ Cl | R-22 | | 75-45-6 | 1018 | 2903.71 / 2903.49 |
| HCFC-123 | Dichlorotrifluoroethanes | C ₂ HF ₃ Cl ₂ | R-123 | | 306-83-2 | | 2903.72 / 2903.49 |
| HCFC-124 | Chlorotetrafluoroethanes | C ₂ HF ₄ Cl | R-124 | | 2837-89-0 | | 2903.79 / 2903.49 |
| HCFC-141 | Dichlorofluoroethanes | C ₂ H ₃ FCl ₂ | | | 1717-00-6 | | 2903.73 / 2903.49 |
| HCFC-141b | 1,1-dichloro-1-fluoroethane | CH ₃ CFCl ₂ | R-141b | | 1717-00-6 | | 2903.73 / 2903.49 |
| HCFC-142 | Chlorodifluoroethanes | C ₂ H ₃ F ₂ Cl | | | 75-68-3 | | 2903.74 / 2903.49 |
| HCFC-142b | 1-chloro-1,1-difluoroethane | CH ₃ CF ₂ Cl | R-142b | | 75-68-3 | | 2903.74 / 2903.49 |
| HCFC-225 | Dichloropentafluoropropanes | C ₃ HF ₅ Cl ₂ | | | | | 2903.75 / 2903.49 |
| Annex C, Group II (HBFCs) | | | | | | | |
| HBFC-22B1 | Bromodifluoromethane | CHF ₂ Br | | | | | 2903.79 / 2903.49 |
| Annex C, Group III | | | | | | | |
| Bromochloromethane | | CH ₂ BrCl | | | | | 2903.79 / 2903.49 |
| Annex E, Group I | | | | | | | |
| Methyl bromide (or Bromomethane) | | CH ₃ Br | | | 74-83-9 | 1062 | 2903.39 / 2903.39 |
| The most common ODS containing blends (Refrigerants) | | | | | | | |
| R-500 ⁵ | CFC-12 / HFC-152a | | R-500 | | ** | | 3824.71 / 3824.71 |
| R-502 ⁵ | HCFC-22 / CFC-115 | | R-502 | | ** | 1973 | 3824.71 / 3824.71 |
| R-401A (MP-39) | HCFC-22/HFC-152a/HCFC-124 | | R-401A | | ** | | 3824.74 / 3824.74 |
| R-406A | R-22/R-600a/R-142b (55/04/41) | | | | | | 3824.74 / 3824.74 |
| R-408A (FX 10) | HCFC-22/HFC-143a/HFC-125 | | R-408A | | ** | | 3824.74 / 3824.74 |
| R-409A (FX 56) | HCFC-22 / HCFC-124/HCFC-142b | | R-409A | | ** | | 3824.74 / 3824.74 |
| R-415B | R-22/R-152a (25/75) | | | | | | 3824.74 / 3824.74 |
| R-418A | HC-290/HCFC-22/HFC-152a | | R-418A | | ** | | 3824.74 / 3824.74 |

Most common refrigerants trade names

ARCTON - ASAHIFRON - ASAHIKLIN - FORANE - FREON - GENETRON - IS-CEON - SOLKANE - SUVA - FLORON

DANGER SYMBOLS



List of main producing countries for ODS

Source: Article 7 data for 2012 reporting year, only countries with positive production figures.

| Group | Producing Countries |
|--|--|
| Chlorofluorocarbons (CFCs) | China, Russian Federation (only in small quantities) |
| Halons | None |
| Carbon tetrachloride (CCl ₄) | China, France |
| Hydrochlorofluorocarbon (HCFCs) | Argentina, Canada, China, Democratic People's Republic of Korea, France, India, Japan, Mexico, Netherlands, Republic of Korea, Russian Federation, United States of America, Venezuela |
| Methyl Bromide | China, Japan, United States of America |

HS codes for selected products that may contain ODS (list is not exhaustive)

| Product | HS code/codes |
|---|-----------------------------------|
| AC systems (including components and parts) | All codes under 84.15 |
| Refrigerators & Freezers | 84.18, 84.19, 85.10 |
| Compressors of a kind used in refrigeration equipment | 8414.30 |
| Vehicles | CHAPTER 87 |
| Fire Extinguishers | 8424.10 |
| Insulating boards & pipe covers | 39.17, 39.20, 39.21, 39.25, 39.26 |
| Polyurethanes | 3909.50 |
| Composite solvents | 3814.00 |
| Dehumidifiers* | 8509, 8479 |
| Pre-blended polyols | 3907 |

*Air dehumidifiers can be classified in heading 84.79 (under the residual subheading 8479.89), while certain types could also fall under 85.09 (subheading 8509.80), as electro-mechanical domestic appliances, with self-contained electric motor, provided their weight is 20kg or less. Heading 85.09 has priority over heading 84.79."

Commonly traded Non-Ozone Depleting Substances⁴

| Name/Group | Chemical name | Formula | ASHRAE # for refrigerants only | ASHRAE ¹ safety group | CAS ² # | UN ³ # | HS code |
|--|------------------------------|--|--------------------------------|----------------------------------|--------------------|-------------------|----------|
| Hydrofluorocarbon (HFC) | | | | | | | |
| HFC-134a | 1,1,1,2-Tetrafluoroethane | CF ₃ CH ₂ F | R-134a | A1 | 811-97-2 | 3159 | 2903.39 |
| HFC-152a | 1,1-Difluoroethane | CHF ₂ CH ₃ | R-152a | A2 | 75-37-6 | | 2903.39 |
| HFC-125 | Pentafluoroethane | CF ₃ CHF ₂ | R-125 | A1 | 354-33-6 | | 2903.39 |
| HFC-143a | 1,1,1-Trifluoroethane | CF ₃ CH ₃ | R-143a | A2 | 420-46-2 | | 2903.39 |
| HFC-32 | Difluoromethane | CH ₂ F ₂ | R-32 | A2 | 75-10-5 | | 2903.39 |
| HFC-23 | Trifluoromethane | CHF ₃ | R-23 | A1 | 75-46-7 | | 2903.39 |
| HFC-245fa | 1,1,1,3,3-Pentafluoropropane | CF ₃ CH ₂ CHF ₂ | R-245fa | A1 | 460-73-1 | | 2903.39 |
| HFC-1,2,3,4yf | 2,3,3,3-Tetrafluoropropene | CH ₂ =CF-CF ₃ | R-1,2,3,4yf | | | | |
| Hydrofluorocarbon (HFC) blends/mixtures | | | | | | | |
| R-404A | R143a/125/134a | | R-404A | A1/A1 | ** | | 3824.78 |
| R-507A | R143a/125 | | R-507A | A1 | ** | | 3824.78 |
| R-407A | R32/125/134a | | R-407A | A1/A1 | ** | | 3824.78 |
| R-407B | R32/125/134a | | R-407B | A1/A1 | ** | | 3824.78 |
| R-407C | R32/125/134a | | R-407C | A1/A1 | ** | | 3824.78 |
| R-410A | R32/125 | | R-410A | A1/A1 | ** | | 3824.78 |
| R-508A | R23/116 | | R-508A | A1/A1 | ** | | 3824.78 |
| R-508B | R23/116 | | R-508B | A1/A1 | ** | | 3824.78 |
| Halogen-free Refrigerants | | | | | | | |
| R-717 | Ammonia | NH ₃ | R-717 | B2 | 7664-41-7 | 1005 | 2814.10 |
| R-744 | Carbon dioxide | CO ₂ | | | 124-38-9 | | 2811.21 |
| R-600 | Butane | C ₄ H ₁₀ | | | 106-97-8 | | 2901.10* |
| R-600a | Iso-Butane | C ₄ H ₁₀ | R-600a | A3 | 75-28-5 | 1969 | 2901.10* |
| R-290 | Propane | C ₃ H ₈ | R-290 | A3 | 74-98-6 | 1978 | 2711.12 |

*The HS Code applies only if the concentration of butane or Iso-butane is higher than 95%. Otherwise, the substance should be classified in the specific provision of subheading 2711.13 for "Butanes".

Footnotes

1- ASHRAE Safety Groups (ASHRAE: American Society for Heating Refrigeration & Air-conditioning Engineers):

| | | | |
|-----------|--------------------------------------|-----------|---------------------------------------|
| A1 | Lower Toxicity & No Flammability | B1 | Higher Toxicity & No Flammability |
| A2 | Lower Toxicity & Lower Flammability | B2 | Higher Toxicity & Lower Flammability |
| A3 | Lower Toxicity & Higher Flammability | B3 | Higher Toxicity & Higher Flammability |

2- CAS #: Chemical Abstract Service Number

4 - Their HS codes may be used to disguise ODS

3- UN #: United Nations Number for some Chemicals

5 - International trade not allowed (contains CFCs)

** The CAS # for mixtures is a combination of the CAS # of its components

(Example: CAS # for R-500 is: 75-71-8 / 75-37-6 which are the CAS # for CFC-12 & HFC-152a respectively)



Protect the Ozone Layer :

Stop the Smuggling of Ozone Depleting Substances

United Nations Environment Programme

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