

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

3- UN #: United Nations Number for some Chemicals

4 - Their HS codes may be used to disguise ODS

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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