



HS Nomenclature (HS Codes) for HCFCs and Certain Other Ozone Depleting Substances



Post-Kigali Update

INTRODUCTION

In recent years, trade patterns in ozone depleting substances (ODS) have changed with the complete phase-out of chlorofluorocarbons (CFCs) as of 1st January 2010 (except for a few exempted uses), the hydrochlorofluorocarbons (HCFCs) phase-out in progress and the increased trade hydrofluorocarbons (HFCs) and other alternatives as replacement chemicals.

To better facilitate monitoring of trade in ODS, the Parties to the Montreal Protocol requested the World Customs Organization (WCO) to revise the Harmonized Commodity Description and Coding System, also known as the Harmonized System (HS codes) for HCFCs. This resulted in amending heading 29.03 of Chapter 29 with the objective of assigning specific 6-digit HS codes to the five most commonly used HCFCs, and at the same time deleting individual

HS codes previously assigned to CFCs. This amendment entered into force on 1 January 2012.

With the 2016 Kigali Amendment to the Montreal Protocol to phase down HFCs, it is expected that a future amendment of the HS will assign separate HS codes for the most commonly traded HFCs and mixtures containing HFCs¹.



HS Classification for ODS (2012)

Under the HS 2012 HCFCs and certain other ODS are to be classified in the HS as follows:

Chapter 29. Organic chemicals

29.03 Halogenated derivatives of hydrocarbons.

[...]

2903. - Halogenated derivatives of acyclic hydrocarbons containing two or more different halogens :

2903.71 -- Chlorodifluoromethane (= HCFC-22)

2903.72 -- Dichlorotrifluoroethanes (= HCFC-123, covers two isomers)

2903.73 -- Dichlorofluoroethanes (= HCFC-141, covers 3 isomers including the most popular HCFC-141b)

2903.74 -- Chlorodifluoroethanes (= HCFC-142, covers 3 isomers, including the most popular HCFC-142b)

2903.75 -- Dichloropentafluoropropanes (= HCFC-225, covers 9 isomers, including the most popular HCFC-225ca and HCFC-225cb)

2903.76 -- Bromochlorodifluoromethane, bromotrifluoromethane and dibromotetrafluoroethanes

[...]

2903.79 -- Other (= all remaining HCFCs and a number of other halogenated derivatives of acyclic hydrocarbons containing two or more different halogens, including inter alia the following ozone depleting substances controlled by the Montreal Protocol: hydrobromofluorocarbons (HBFCs) and bromochloromethane (BCM))

Overleaf is presented a correlation table showing the previous HS classification of ODS until 31 December 2011 (HS 2007) and the revised classifications which were applicable from 1 January 2012 (HS 2012). Information is also provided on the current HS codes for ODS-containing mixtures (see back page).

1. See page 4

Correlation table showing the HS classification of ODS: HS 2007 and HS 2012

| Refrigerant Designation | Chemical Name | Formula | HS 2007 | HS 2012 | Remarks |
|---|----------------------------|---|---------|---------|---|
| Annex A, Group I (CFCs) | | | | | |
| CFC-11 | Trichlorofluoromethane | CFCl ₃ | 2903.41 | 2903.77 | <i>Subheadings for Annex A Group I – CFCs (2903.41 - 2903.44) have been merged, together with subheading 2903.45 for Annex B Group I - Other CFCs, into new subheading 2903.77</i> |
| CFC-12 | Dichlorodifluoromethane | CF ₂ Cl ₂ | 2903.42 | | |
| CFC-113 | Trichlorotrifluoroethanes | C ₂ F ₃ Cl ₃ | 2903.43 | | |
| CFC-114 | Dichlorotetrafluoroethanes | C ₂ F ₄ Cl ₂ | 2903.44 | | |
| CFC-115 | Chloropentafluoroethane | C ₂ F ₅ Cl | 2903.44 | | |
| Annex A, Group II (Halon) | | | | | |
| Halon-1211 | Bromochlorodifluoromethane | CF ₂ BrCl | 2903.46 | 2903.76 | <i>Subheading for Annex A Group II – Halons (2903.46) has been renumbered as 2903.76</i> |
| Halon-1301 | Bromotrifluoromethane | CF ₃ Br | | | |
| Halon-2402 | Dibromotetrafluoroethanes | C ₂ F ₄ Br ₂ | | | |
| Annex B, Group I (Other CFCs) | | | | | |
| CFC-13, CFC-111, CFC-112, CFC-211, CFC-212, CFC-213, CFC-214, CFC-215, CFC-216, CFC-217 | | | 2903.45 | 2903.77 | <i>Subheading for Annex B Group I – Other CFCs (2903.45) have been merged, together with subheadings 2903.41 to 2903.44 for Annex A Group I - CFCs, into new subheading 2903.77</i> |
| Annex B, Group II | | | | | |
| Carbon tetrachloride | | CCl ₄ | 2903.14 | 2903.14 | <i>No change</i> |
| Annex B, Group III | | | | | |
| 1,1,1-trichloroethane (methyl chloroform) | | C ₂ H ₃ Cl ₃ | 2903.19 | 2903.19 | <i>No change</i> |

| ASHRAE Designation | Chemical Name | Formula | HS 2007 | HS 2012 | Remarks |
|---|-----------------------------|--|----------|---------|--|
| Annex C, Group I (HCFCs) | | | | | |
| HCFC-22 | Chlorodifluoromethane | CHF ₂ Cl | 2903.49 | 2903.71 | <i>Individual subheadings: 2903.71 – 2903.75 have been created for common HCFCs formerly classified in subheading 2903.49</i> |
| HCFC-123 | Dichlorotrifluoroethanes | C ₂ HF ₃ Cl ₂ | | 2903.72 | |
| HCFC-141, 141b | Dichlorofluoroethanes | C ₂ H ₃ FCl ₂ , CH ₃ CFCl ₂ | | 2903.73 | |
| HCFC-142, 142b | Chlorodifluoroethanes | C ₂ H ₃ F ₂ Cl, CH ₃ CF ₂ Cl | | 2903.74 | |
| HCFC-225, 225ca, 225cb | Dichloropentafluoropropanes | C ₃ HF ₅ Cl ₂ , CF ₃ CF ₂ CHCl ₂ , CF ₂ ClCF ₂ CHClF | | 2903.75 | |
| Other HCFCs HCFC-21, HCFC-31, HCFC-121, HCFC-122, HCFC-124, HCFC-131, HCFC-132, HCFC-133, HCFC-151, HCFC-221, HCFC-222, HCFC-223, HCFC-224, HCFC-226, HCFC-231, HCFC-232, HCFC-233, HCFC-234, HCFC-235, HCFC-241, HCFC-242, HCFC-243, HCFC-244, HCFC-251, HCFC-252, HCFC-253, HCFC-261, HCFC-262, HCFC-271 | | | 2903.49 | 2903.79 | <i>Other HCFCs, formerly classified in subheading 2903.49, have been merged, together with Annex C Group II - HBFCs and Annex C Group III - BCM, into new subheading 2903.79</i> |
| Annex C, Group II (HBFCs) | | | | | |
| All Hydrobromofluorocarbons | | | 2903.49 | 2903.79 | <i>Subheading for Annex C Group II: HBFCs has been merged into new subheading 2903.79</i> |
| Annex C, Group III | | | | | |
| Bromochloromethane (BCM) | | CH ₂ BrCl | 2903.49 | 2903.79 | <i>Subheading for Annex C Group III: BCM has been merged into new subheading 2903.79</i> |
| Annex E, Group I | | | | | |
| Methyl bromide (MeBr) | | CH ₃ Br | 2903.39* | 2903.39 | <i>No change</i> |

*The HS code for methyl bromide (bromomethane) was changed in January 2007; since then the HS code for methyl bromide (bromomethane) is 2903.39. However, many other substances are classified under the same HS code (i.e. 2903.39), including hydrofluorocarbons (HFCs), which are commonly used as substitutes for CFCs and HCFCs. It is therefore recommended that countries insert additional subdivisions in their nomenclatures and assign specific codes for these substances by adding one or more digits to the standard 6-digit HS code 2903.39.

ODS-containing mixtures/blends

The HS 2007 classification for mixtures/blends containing ODS still applies (i.e. these codes were not amended in the HS 2012),

From the HCFC perspective, the classification structure presented below means that:

- If the mixture is a blend of HCFCs only or blend of HCFCs and any substances other than CFCs – it should be classified under subheading 3824.74.
- If the mixture contains both HCFCs and CFCs (and possibly also other substances), it should be classified under subheading 3824.71.

It is also very important to note that the codes presented below apply only if the mixture is **not** covered by a more specific heading of the HS.

- For example, ‘organic composite solvents’ consisting of mixtures containing HCFCs are classified under heading 38.14 (HS code 3814.00 - “Organic composite solvents or thinners, not elsewhere specified or included; prepared paint or varnish removers”).

HS codes for ODS-containing mixtures

Chapter 38. Miscellaneous chemical products

38.24 Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical and allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included.

[...]

3824. - Mixtures containing halogenated derivatives of methane, ethane or propane :

3824.71 -- Containing chlorofluorocarbons (CFCs), whether or not containing hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs)

3824.72 -- Containing bromochlorodifluoromethane, bromotrifluoromethane or dibromotetrafluoroethane (= containing halons 1301, 1211 or 2402)

3824.73 -- Containing hydrobromofluorocarbons (HBFCs)

3824.74 -- Containing hydrochlorofluorocarbons (HCFCs), whether or not containing perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs), but not containing chlorofluorocarbons (CFCs)

3824.75 -- Containing carbon tetrachloride

3824.76 -- Containing 1,1,1-trichloroethane (methyl chloroform)

3824.77 -- Containing bromomethane (methyl bromide) or bromochloromethane

3824.78 -- Containing perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs), but not containing chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs) (*these are mixtures which do not contain ozone depleting substances*)

3824.79 -- Other (*these are mixtures which do not contain ozone depleting substances*)

HS codes for HFCs

With the Kigali Amendment adding hydrofluorocarbons (HFCs) to the substances controlled by the Protocol, it is important for customs and enforcement officers to be able to identify, monitor and control imports and exports of these substances.

Currently all HFCs are covered by the single HS code: **2903.39**, and mixtures containing HFCs are covered by code **3824.78**. The creation of specific individual HS codes for commonly traded HFCs is therefore very much needed.

Under the Kigali Amendment, import and export licencing systems for HFCs need to be in place by 1 January 2019². This may present something of a challenge for countries, as the new HS Nomenclature 2017 edition did not include individual codes for HFCs and the next HS edition will be released in 2022. Discussions with the WCO to create the required HS codes for HFCs are ongoing.

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2. Or 3 months after the Amendment is ratified by 20 countries