



THE ULTIMATE GUIDE TO HS CODE CLASSIFICATION

Helping you understand the
World Customs Organization's
Harmonized System

GUIDE

CONTENTS

- A short history of the Harmonized System
- HS code structure
- Why are HS codes important?
- The benefits of using the correct HS codes
- Common HS code errors
- An easier way to apply the correct HS codes

DISCLAIMER

Sales tax rates, rules, and regulations change frequently. Although we hope you'll find this information helpful, this guide is for informational purposes only and does not provide legal or tax advice.

INTRODUCTION

How much do you know about HS (Harmonized System) codes? Over 200 countries have adopted the Harmonized System – comprising a staggering 98% of world trade – so it's vital for any business trading across international borders to have a strong understanding of what they are and how they work.

HS codes are numbers used by customs officials to identify goods being shipped across borders. Every product requires a specific code that affects how much customs duty is charged for shipping it. Using incorrect HS codes has significant consequences, such as delayed shipping or increased customs duties.

In this guide, we'll take a deep dive into the key topics surrounding HS codes, including their structure and the common errors of HS code application. We'll also provide a short history of how and why the Harmonized System was created.

We aim to support and improve your understanding of HS codes and the Harmonized System. If you pay close attention to getting your HS codes right, the only thing your customers will have to worry about is finding the best product for the best price.

A short history of the Harmonized System

Looking at the historical context in which a particular system was created can help you understand its core aims, which in turn can help your business use the system more effectively. To that end, here's a short history of the Harmonized System:

1931

The Harmonized System originated in 1931 when the League of Nations created the Geneva Nomenclature system to replace various separate national customs systems. However, efforts to popularize it were interrupted by the Second World War.

1959

Post-war, following much revision and research, the awkwardly named “Brussels Convention on Nomenclature for the Classification of Goods in Customs Tariffs” was produced in 1959. The convention was an entirely voluntary system, only used by signatory nations. In practice, the convention was referred to as the BTN, or Brussels Tariff Nomenclature. The structure of BTN codes was similar to modern HS codes, involving chapters, headings, and subheadings.

1974

The BTN was renamed in 1974 to the Customs Cooperation Council Nomenclature (CCCN). The Customs Cooperation Council was the intergovernmental body that oversaw cross-border trade, and it eventually evolved into today's World Customs Organization (WCO). The CCCN/BTN went through four major revisions in 1965, 1972, 1978, and 1988.

1988

In 1988, CCCN was renamed the Harmonized System. To assist with its universal adoption, the new Harmonized System incorporated aspects of many other customs systems, ranging from the tariff nomenclatures of Canada, Japan, and Latin America to transport-specific commodity classification systems for trains, planes, and even steamships.

2002 until now

As new products entered the market, the Harmonized System was adjusted to accommodate them. These partial updates continued until 2002 when the WCO decided that the Harmonized System would receive a major revision every five years instead of continuous piecemeal changes. As of 2023, there have been four updates, with the most recent occurring in 2022.



If you'd like to learn more about this history, read [The Harmonized System: A universal language for international trade](#), a detailed guide released by the WCO on the 30th anniversary of the Harmonized System.



HS code structure

The list of HS code numbers, officially referred to as the WCO HS Nomenclature, is organized into several categories: sections, chapters, headings, and subheadings.

As of the current edition (HS2022), there are:

21 sections: Businesses should keep in mind that the section number is not used as part of the actual HS code they'll apply to their goods. Sections are only used to organize the HS code list.

96 chapters: Chapters include broad product categories such as “Beverages, spirits, and vinegar” (Chapter 22). Also, there are technically 97 chapters, but Chapter 77 is listed as being “reserved for possible future use” and does not include any actual product codes.

1,244 headings: Chapters contain multiple headings, which are more specific product categories. Chapter 22 has nine headings, and Heading 04 is “Wine of fresh grapes, including fortified wines.”

5,224 subheadings: The final section of the WCO HS Nomenclature is the subheading, which usually lists only a single type of product. For example, in Chapter 22, Heading 04, there are five subheadings, and Subheading 10 is “Sparkling wine.” The subheadings are not sequential – Heading 04 contains Subheadings 10, 21, 22, 29, and 30, but not Subheadings 11, 24, 25, and so on.

A typical HS code is made up of six digits split into three pairs. The pairs represent a chapter, heading, and subheading. Using the previous examples, we can identify the product code for a bottle of champagne:

Chapter 22: Beverages, spirits, and vinegar

Heading 04: Wine of fresh grapes, including fortified wines

Subheading 10: Sparkling wine

So **2204.10** would be the HS code for our bottle of champagne. Due to the number of different categories, there are thousands of potential HS code combinations, which more or less cover every conceivable product on the market.



Country codes

While a standard HS code is six digits, it can be longer if additional country codes are added. Although the Harmonized System itself is used by customs authorities around the world, some countries (or international organisations) still have their own internal customs codes.

Most examples of independent national customs nomenclature still use the six-digit HS codes as a base and simply add additional digits:

- American Harmonized Tariff System (HTS) codes are 10 digits
- EU TARIC codes are 10 digits, including two Combined Nomenclature digits and two TARIC digits
- Chinese customs codes are 13 digits, including two additional digits to identify the product, two digits for a customs supervision number, and three digits for an inspection and quarantine number

Be specific

When it comes to HS codes, it's important to be exact. For instance, a farmer exporting mushrooms abroad would use the code 0712.39. However, if the farmer accidentally puts the zero in the wrong place and writes 7102.39, customs will expect a shipment of diamonds instead.

Clothing is another example of why specificity is vital when assigning HS codes. The U.K. government webpage for the classification of textile apparel very clearly demonstrates why: the page includes dozens of lists with hundreds of details that identify different pieces of clothing, each list explaining why you should use one HS code over another.

For example, there are eight different subheadings one might use for “one-piece nightwear that covers both the upper and lower body,” and that’s just based on the intended wearer (i.e., men, women, children, etc.). The material used to produce the item is also influential in determining the HS code that should be used.

As an example, let’s find the HS code for a men’s shirt. First, we’ll go to Section 11, which covers “Textiles and textile articles.” Next, we have to consider the material the shirt is made of – let’s say it’s cotton. Although Chapter 52 is clearly labelled “Cotton,” we’re actually looking for Chapter 62, which covers “Articles of apparel and clothing accessories (not knitted or crocheted).”

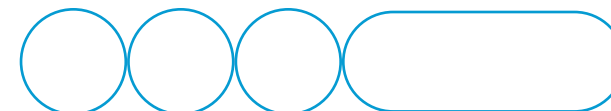
Since it’s a men’s shirt, that would be Heading 05 (“Men’s or boys’ shirts”) and Subheading 20 is for cotton shirts. So, in summary:

Chapter 62: **Articles of apparel and clothing accessories (not knitted or crocheted)**

Heading 05: **Men’s or boys’ shirts**

Subheading 20: **Of cotton**

This means the HS code we need is **6205.20**. However, it’s a lot of effort to get there, which means it’s easy to make mistakes. Since even minor errors can be problematic, it’s a good idea to automate the application of HS codes if possible.



Why are HS codes important?

While applying the correct HS codes is important for an individual business, the Harmonized System as a whole is key to international trade. In this section, we'll discuss what makes HS codes so important.

Security

The core strength of the Harmonized System is that it makes it easy to track, measure, and identify goods. While the system was created with commerce in mind, these strengths also make it a great tool to bolster national security. HS codes allow a government to accurately track any goods moving in and out of their country via the customs authority.

The Harmonized System also implements identifiers from international guidelines and conventions on security concerns (like the trade of drugs and firearms or the movement of hazardous materials) into its headings and subheadings.

Most of the statutes are internationally observed, such as the [1988 Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances](#) or the [2004 Stockholm Convention on Persistent Organic Pollutants](#). As such, HS codes provide an important tool for governments to monitor controlled goods.

Taxation

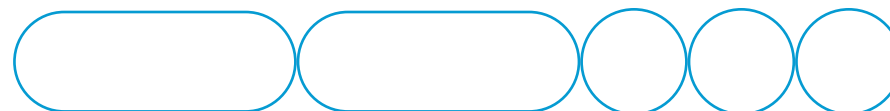
Properly taxing imported goods requires the tax authorities to know exactly what's being brought into the country. The Harmonized System provides this information, as HS codes allow tax authorities to know exactly what's in a particular shipment. With that information, they can then charge the correct customs duty rates to the relevant businesses and individuals.

Having a universal coding system (like HS codes) means that individual nations don't need to create their own codes for customs duty. Without the Harmonized System, cross-border trade would be much more complicated for businesses: Companies would have to apply different codes for each nation they ship goods into.

Research

Both public institutions (such as governments, tax authorities, and customs agencies) and private ones (like market research firms, universities, and statistical agencies) use the data from international trade to create research papers and drive decision-making.

The Harmonized System allows trade to be measured and recorded. Using statistical data derived from customs records becomes more reliable and useful if it's based on information provided by HS codes. Of course, it's only reliable if the correct HS codes are being applied to goods.



The benefits of using the correct HS codes

Applying the correct HS codes to your goods doesn't just benefit your business, it can also offer noticeable benefits to your customers. In this section, we'll take a closer look at those benefits.

Consumer benefits

Accurate prices: Using the correct HS codes provides an accurate final landed price, so customers can understand exactly how much ordering a particular product will cost them and where these costs stem from.

HS codes are crucial if you're looking to provide your goods as DDP (delivered duty paid) instead of DAP (delivered at place). With DDP, the item is paid for and delivered without any hidden costs for the customer. DAP requires the customer to pay customs and import fees, which can significantly reduce customer satisfaction, even if this was clearly stated before purchase. Using the correct HS codes allows you to offer your goods DDP, which keeps customers happy.

Faster delivery: Assigning incorrect HS codes leads to customs delays, as authorities will need to take the time to correctly identify your shipment. The correct codes can help ensure the order is delivered to the intended recipient without these types of delays.

Reduced customs duty: Assigning incorrect HS codes also means the customs authorities will automatically apply the highest possible customs duty rate for the type of product you're trying to deliver. If your goods should actually have a lower duty rate applied, this means your customer will have been overcharged at checkout if the shipment is DDP or upon delivery if it's DAP.

Using the correct codes means your business pays less duty, which means less of an expense needs to be passed on to the customer. In turn, the customer pays a lower price overall which helps immensely with their satisfaction.



Business benefits

Customer satisfaction: Above, we've listed the benefits that using the correct HS codes hold for consumers. For businesses, these advantages all boil down to a single point: happier customers. Having a satisfied customer base is great for retaining loyalty, which usually leads to more measurable benefits, such as repeat purchases and positive reviews.

Reduced customs duty: DDP means the business takes on all the customs costs associated with an order, which is better for the consumer but costs the business more. Businesses using DDP can minimize costs by ensuring they apply the correct HS codes, as doing so avoids the higher duty rate that's applied to goods with incorrect codes.

Avalara has had experience with businesses who suffer from a severe reduction in revenue due to improper item classification. One client saw the customs duty rate they were paying quadruple from 5% to 20% due to the incorrect HS codes being applied to their goods.

The Avalara Managed Tariff Code Classification team invested time into understanding the client's products and manufacturing processes so they could identify the right HS codes for the kinds of products being imported. This helped ensure customs duty would not be a source of problems for the client as they continued to expand internationally.

No loss of goods: In certain circumstances, customs authorities may seize or even destroy incorrectly labelled goods they cannot identify. Using correct HS codes avoids the destruction of your stock and the associated consequences such as repurchasing stock or refunding the customer.

Stay compliant: An important part of customs compliance is identifying and assigning the correct HS codes. Noncompliance leads to delays and increased duty rates, but it can also lead to financial and legal penalties if you regularly try to ship goods with incorrect codes.

In light of the new EU Import Control System 2 (ICS2), which will implement additional automated checks on imported goods, compliance is even more important. ICS2 has been created to strengthen border security throughout the EU and facilitate the cross-border clearance of legitimate goods. It's likely that ICS2, being more advanced than the digital tools previously used by customs authorities, will be able to more accurately identify shipments with incorrect HS codes, putting more pressure on businesses to fulfil their obligations to the Harmonized System.



CASE STUDY

Avalara has had experience with businesses who suffer from a severe reduction in revenue due to improper item classification. One client saw the customs duty rate they were paying quadruple from 5% to 20% due to the incorrect HS codes being applied to their goods.

The Avalara Managed Tariff Code Classification team invested time into understanding the client's products and manufacturing processes so they could identify the right HS codes for the kinds of products being imported. This helped ensure customs duty would not be a source of problems for the client as they continued to expand internationally.

Common HS code errors

HS codes are commonly overlooked or under-prioritized, especially in small and mid-sized B2C companies. Sometimes it takes making a costly error for businesses to become aware of the impact of getting HS codes wrong.

However, we think it's unnecessary for companies to suffer through the consequences of noncompliance just to learn about HS codes. To help you better understand the Harmonized System, we've compiled two examples of common HS code errors.

Incorrect country codes

As mentioned above, some countries require additional digits to be added to the HS codes. In addition to not including these extra digits, some intermediate companies (those importing goods from one country and then exporting them to another) may use the same HS code for the full journey.

Doing so is incorrect, as (for instance) a 10-digit HTS code does not align with a 10-digit TARIC code. Although both systems use the same six-digit HS code as a base, and likely share product definitions, they do not use the same digits or product categories. Not updating the commodity code for the shipment when it's continuing on to a new country leads to noncompliance.

If you sell your goods to multiple countries with different customs nomenclatures, constantly updating the codes on your goods can be a challenge. To avoid making this error, consider [automating your tariff code classification system](#). Doing so reduces the risk of human error and saves time.



Incorrectly grouping products together

Companies that make components, or deal with a large number of unique stock-keeping units (SKUs), regularly make this mistake: car part or computer part manufacturers are good examples. The error appears when a business ships a large number of components across borders, but groups the goods together instead of treating them as separate products.

There are two ways the error commonly occurs:

Shipping individual parts as a single product:

Desktop computers might be shipped with additional components, such as a mouse, a keyboard, or a monitor. While these items are typically required to actually use the computer, they cannot be treated as part of it when it comes to applying HS codes. Businesses must apply specific codes for each component.

Shipping a group of products under a general term:

Car part manufacturers commonly make this mistake by shipping similar but distinct wares under a single code. While the Harmonized System does technically allow this – most headings have a subheading listed as “other” for goods that don’t neatly fall into other subheadings – it’s incorrect to label a variety of goods under the “other” subheading even if you’ve used the correct heading. There are hundreds of different HS code variants relating to the material or purpose of similar goods, and businesses need to utilise these variants in order to stay compliant.

As with incorrect country codes, automation is your greatest asset if you’re trying to avoid incorrectly grouping products together. Most digital solutions will use an HS code library to ensure correct codes are applied even if you’re shipping multiple products.



An easier way to apply the correct HS codes

Traditional HS code classification options are inefficient, and each delivers only a partial solution.

With tax content in over 190 countries, Avalara ensures more accurate HS code classifications, empowering your business to scale fluidly and support ever-changing product catalogues.

Our integrated solution automates tariff code classification and delivers real-time calculation of customs duties, import taxes, and sales and use taxes. [Avalara Cross-Border](#) works in harmony with the rest of your tech stack, allowing you the freedom to choose which best-in-class partner you work with, whether they're shipping carriers, payment providers, or fraud management teams.

Powered by AI, our item classification tool can help save you time and money with:

Instant identification: Our tool can instantly identify your products and apply the relevant HS codes, adding additional national codes when necessary. As such, it'll be much easier for you to stay customs compliant when shipping between multiple nations.

Regular essential updates: Our tool automatically accounts for updates to national customs nomenclatures and the Harmonized System, so you don't have to constantly check for code changes.

Easy integration, easy setup: Our tool can easily integrate with existing software – you don't need to revise your entire tech stack to use it.



Our blend of automation and human expertise guarantees greater accuracy, speed and scale, less up-front data preparation, and efficiency. If you're looking for an easier way to apply correct HS codes and stay compliant, then it's time to discover the benefits of [Avalara Cross-Border](#).





Avalara helps businesses of all sizes get tax compliance right. In partnership with leading ERP, accounting, e-commerce, and other financial management system providers, Avalara delivers automated, cloud-based compliance solutions for transaction tax, including sales and use, VAT, GST, excise, communications, lodging, and other indirect tax types. Headquartered in Seattle, Avalara has offices across the US and around the world in Brazil, Europe, and India.

More information at www.avalara.com.

