
The Connection Formula in Classifying Goods Under the Harmonized System (HS) Convention

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Classification of goods for customs purposes, according to the Harmonized System Convention (HS), affects the tax rates that will or will not be imposed on them, as well as issues related to compliance issues, such as required government approvals, statistical needs, free trade agreements, and so on.

The HS language contains many Headings and Subheadings which relate to the degree of connection between the goods and their usage. These phrases use language such as exclusive use, primary use, special use, designed use of the goods, for example, which will be referred to in this article as the ‘connection formula’.

The HS seems to contain too many types of connection formulae, with the difference between them not always clear.

Therefore, it is suggested to eliminate non-defined terms, and to strive for a method that is as simple as possible. Alternatively, the World Customs Organization (WCO) should consider eliminating the ‘use’ condition and sticking to a narrow description.

1. Introduction

1.1. The Harmonized System Convention

Businesses involved in import of goods, especially customs agents, occasionally encounter dilemmas concerning the classification of goods according to the Harmonized System Convention (HS Convention) (Naujokė, 2023).

The common opinion in the literature is that the HS is a very successful international convention. The HS has 165 signatory states worldwide and is updated every five years. The HS, however, is used in more than 200 states as it is also used by some non-signatories (Allende, 2022; Lasinski-Sulecki, 2022; Oliver & Yataganas, 1987; Schueren, 1991; Vermulst, 1994; Weerth, 2008b, 2008c, 2008e, 2008g, 2008i, 2011, 2012, 2017b, 2017a, 2017c; Wind, 2007).

The HS convention divides goods into Sections, Chapters (2 digits), Headings (4 digits) and Subheadings (6 digits) and tries to implement a universal, worldwide language and rules to classify goods (Weerth, 2008f; World Customs Organization, 2022).

For example, HS code 85.17-13, a Subheading level (of Chapter 85, Heading 85.17) relates to ‘Smartphones’ in every member state that implements the convention.

1.2. The HS Convention in Israel

Israel implemented the HS in the Customs Tariff Order, which adopted the international convention at the six-digit level. The Israeli legislator added two more digits (7-8), called ‘paragraphs’ or ‘articles’ (Israel Tax Authority, 2022).

Classification of goods for customs purposes affects the tax rates that will or will not be imposed on them, as well as issues related to compliance issues, such as required government approvals, statistical needs, free trade agreements, and so on.

Classification of goods is not an easy task and frequently even the most experienced persons may encounter true dilemmas (Kawazoe, 2022).

Technology has been implemented to try and replace the human classifier in, for example, an algorithm or applications, and many steps in this direction have been made (Ding et al., 2015; Lee et al., 2021; Lukaszuk & Torun, 2022; Lux & Matt, 2021; Rotchin, 2022), but in this field, there remains no replacement for a human being.

In one of the famous Israeli Supreme Court Judgements in 2001, the court had to classify a cellular battery (*Eurocom Cellular Communication Ltd vs. The State of Israel – Customs and VAT Department*, 2001). The Israeli customs authority claimed a classification in Subheading 85.07-30, which related to ‘Electronic Accumulators. Nickel-cadmium’. The importer claimed a classification in Subheading 85.29-90, which related to ‘Parts suitable for use solely or principally with the apparatus of headings 85.24 to 85.28’. The judge needed to rule which description is more specific, according to General Interpretive Rule (GIR) 3(a) of the HS, and whether it was in simple language ‘a battery’ of Subheading 85.07-30 or ‘A cellular phone part’ of Subheading 85.29-90. GIR 3(a) rules: ‘The heading which provides the most specific description shall be preferred to headings providing a more general description’. The judge ruled in favour of ‘A cellular part’, but not before he compared customs classification to a Jewish biblical story, and noted that ‘Classification of goods is hard as the Crossing of the Red Sea’ (*Eurocom Cellular Communication Ltd vs. The State of Israel – Customs and VAT Department*, 2001, p. 579). The judge is referring to the story of the Israelites escaping Egypt, led by Moses. When they reached the Red Sea, a miracle happened. The sea divided in two and the Israelites escaped along the dry ground in the middle, while the Egyptians chasing them drowned as the sea engulfed them as they crossed.

1.3. The difference between ‘material’ and ‘usage’

If the HS Convention is a huge success worldwide, is classification a simple task, or a complicated one?

On the one hand, there are relatively simple customs Headings and Subheadings, which relate mainly to material and form and do not raise controversies, for example, Heading 70.09 - ‘Glass mirrors, whether or not framed, including rear-view mirrors’.

On the other hand, however, the HS language contains many customs Headings and Subheadings that relate to the degree of connection between the goods and their usage, such as exclusive use, primary use, special use, designed use; a term which will be referred to in this article as the ‘connection formula’.

This was well described in one of the articles, ‘Basically, goods can be classified by material condition and by function or usage (combinations are possible)’ (Weerth, 2008c, p. 61).

An excellent article by Professor Maureen Irish deals with Canadian and European cases related to customs classification and mentions:

Some tariff classifications refer to the use of the goods without being end use classifications. The goods are not ‘for use in’ a particular sector. Use is mentioned explicitly, however, as part of the description. Standard formulations are that the goods ‘of a kind used with’ some other goods or ‘of a kind used in’ a certain application’. (Irish, 2008, p. 27)

This review will discuss the following connection formulae: exclusive; exclusive or primary; primary; special; intended for; designed; suitable, adapted appropriate; of a kind used in/for/as.

As will be noted, the HS contains too many types of connection formulae with the difference between them not always clear, and the HS Convention itself does not provide a detailed explanation on these phrases. Therefore, it is suggested that non-defined terms be eliminated and a method that is as simple as possible be sought.

Connection formulae exist not only on the Headings and Subheadings level of the HS codes, but also on titles and explanatory notes. This article deals with the wording of the HS codes themselves (Headings and Subheadings) but not the explanatory notes.

The underlining of words within the Headings and Subheadings in this article is intended to emphasise the connection formula and does not appear in the original HS.

2. The basic connection formulae

The connections formulae will be presented in a hierarchical way, starting from the most limited formula, which demands one use of the goods, followed by a formula which allows several uses, and so on.

2.1. The ‘exclusive’ formula

This is the most powerful connection formula, requiring an exclusive one and only use of the goods to classify it in those HS codes. This formula can use the word ‘only’, ‘exclusive’, ‘of a kind used exclusively’, ‘solely’, etc.

‘Exclusive’, according to the dictionary definition (dictionary.com, n.d.), is defined as ‘Limited to the object or objects designated’. Examples of this connection formula can also be found worldwide, including in Israel.

On the international level, some examples are shown in [Table 1](#).

Table 1. HS codes including the ‘exclusive’ formula

Chapter	Heading	Subheading	Description
85	47	-	Insulating fittings for electrical machines, appliances or equipment, being fittings wholly of insulating material apart from any minor components of metal (for example, threaded sockets) incorporated during moulding <u>solely for purposes of assembly</u> , other than insulators of heading 85.46; electrical conduit tubing and joints therefor, of base metal lined with insulating material
88	06	20	Unmanned aircraft. Other, for remote-controlled flight <u>only</u>
94	05	31	Luminaires and lighting fittings including searchlights and spotlights and parts thereof, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like, having a permanently fixed light source, and parts thereof not elsewhere specified or included. Lighting strings of a kind used for Christmas trees: <u>designed for use solely</u> with light-emitting diode (LED) light sources.

In Israel Customs Tariff, for example, ‘Other devices for the transmission or reception of sound, images or data... for reception only’ (Subheading 85.17-6950); ‘Buses which serve exclusively for tours and excursions for tourists’ (Subheading 211) and ‘Machine or Electrical or electronic instrument of the kind used exclusively in laboratories or industry for measure or for sampling of the pollution in air, sea, waterways or soil’ (Subheading 432).

As we all know, progress in technology is fast — every day new products are being invented, many of which may be multi-purpose. This may raise the question whether in 2023 there are products that have only one, exclusive use, and whether this ‘exclusive’ formula is still necessary.

2.2. Solely or principally formula

The next connection formula refers to exclusive or primary use.

Apparently, the HS wants to imply that this is an *almost* exclusive use, because if primary use was enough to classify the goods here, the word ‘exclusive’ is unnecessary. This formula is common in the HS codes as ‘solely or principally’.

Principally is defined as chiefly or mainly. Primarily is defined as essentially, mostly, chiefly and principally (dictionary.com, n.d.)

Examples of this connection formula can be found worldwide, as in [Table 2](#).

Table 2. HS codes including the ‘solely or principally’ formula

Chapter	Heading	Subheading	Description
84	09	91	Parts suitable for use <u>solely or principally</u> with the engines of heading 84.07 or 84.08. Other - Suitable for use <u>solely or principally</u> with spark-ignition internal combustion piston engines
84	86	-	Machines and apparatus of a kind used <u>solely or principally</u> for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays
84	73	-	Heading 84.73 - Parts and accessories...suitable for use <u>solely or principally</u> with machines of headings 84.70 to 84.72
85	03		Parts suitable for use <u>solely or principally</u> with the machines of heading 85.01 or 85.02.

In 2018, the Israeli Magistrate Court ruled that monitors equipped with a high-definition multimedia interface (HDMI) connector are of the type used solely or principally with computers, and their additional use with multimedia, for example, with TV converters, does not preclude this conclusion (*H.Y. Electronics and Components Ltd vs. The State of Israel, The Tax Authority, Customs and VAT Department, 2018*).

2.3. Primary/principal formula

The next connection formula is primary use, such as those shown in [Table 3](#).

Table 3. HS codes including the 'primary' formula

Chapter	Heading	Subheading	Description
12	11	-	Plants and parts of plants... <u>of a kind used primarily</u> in perfumery, in pharmacy or for insecticidal...purposes
29	36	-	Provitamins and vitamins, natural or reproduced by synthesis (including natural concentrates), derivatives thereof <u>used primarily</u> as vitamins, and intermixtures of the foregoing, whether or not in any solvent
71	12	-	Waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal or precious metal compounds, <u>of a kind used principally</u> for the recovery of precious metal other than goods of heading 85.49.

This formula relates to main use (not exclusive use) therefore it differs in language from the previous one, 'solely or principally'. If, however, the HS convention has a connection formula of 'solely or principally', which includes the main, principal use, maybe it was unnecessary to create a different connection formula of primary/principal use.

2.4. The 'special' formula

The next connection formula differs in language from the previous hierarchy. It is the 'special' or unique use.

'Special', as defined in the dictionary, is having a specific or particular function, purpose, etc. (dictionary.com, n.d.). This definition raises the question of whether it more closely resembles the 'exclusive', or 'principal' formula, presented above.

This special formula exists also on the international level, as outlined in [Table 4](#).

Table 4. HS codes including the 'special' formula

Chapter	Heading	Subheading	Description
73	02	-	Railway or tramway track construction material of iron or steel, the following: rails, check-rails and rack rails, switch blades, crossing frogs, point rods and other crossing pieces, sleepers (cross-ties), fish-plates, chairs, chair wedges, sole plates (base plates), rail clips, bedplates, ties <u>and other material specialized for</u> jointing or fixing rails
86	05	-	Railway or tramway passenger coaches, not self-propelled; luggage vans, post office coaches <u>and other special purpose</u> railway or tramway coaches, not self-propelled (excluding those of heading 86.04)
95	04		Video game consoles and machines, table or parlour games, including pintables, billiards, <u>special tables for</u> casino games and automatic bowling equipment, amusement machines operated by coins, banknotes, bank cards, tokens or by any other means of payment.

It is also used in the Israeli Subheadings, as outlined in [Table 5](#).

Table 5. Israeli HS codes including the 'special' formula

Chapter	Heading	Subheading/ article	Description
38	19	0020	<u>Special</u> hydraulic fluid for supersonic aircrafts
84	81	3030	Valves <u>special</u> for air-conditioning machines
85	18	5020	Paging systems <u>of a kind used specially</u> for fire-engines, ambulances, police cars or civil-defence vehicles
85	28	7140	Reception apparatus...others, <u>specials for</u> reception from satellite or from terrestrial cables
94	04	9012	Cushion which can be attached to the seat of a motor vehicle <u>used specially</u> for elevating children.

The 'special' term has been a stumbling block in Israeli courts. The HS term 'special' has come up for discussion in these courts many times and sometimes contradictory decisions have been made. The courts are not sure what 'special' means: is it an exclusive use, or a primary use, as follows:

- In 1997, the Israeli Supreme Court ruled that the term 'special' refers to a distinct, dominant but non-exclusive use, and that the beeper device is 'special' for work uses and not for private/personal use (*Iturit Communication Services Ltd vs. The State of Israel*, 1997).
- In 2001 the Israeli Court ruled that radio splitters are not 'special' for a motor vehicle, since even if the splitters are pulled out of the vehicle, they do not lose their essence, they can be used for radios outside a vehicle. Thus, they differ from a steering wheel and a seat belt — the latter are special for vehicle (*Auto-Part Ltd vs. The State of Israel, Customs and VAT Department*, 1503/00, 2001).
- In 2009–2011, Israeli courts were required to decide what would be considered as special ironing machines for the textile industry. The goods were machines which could iron 60 shirts per hour, therefore the importer claimed it was special for the textile industry. The courts ruled that the meaning of the term special is dominant, primary, with a specification specific to that use. In the specific case, it was ruled

that the machines were not special to the textile industry, since it also served the laundering industry (*Tam.A.S. Industries Ltd vs. The State of Israel (Ashdod customs house)*, 2011; *Tam.A.S. Industries Ltd vs. The State of Israel (Ashdod customs house)*, 2009).

- In the years 2015–2017, the Israeli courts decided on the question of what would be considered a special filter for air-conditioning systems. The Magistrates’ Court considered ‘special’ as exclusive, and the District Court considered ‘special’ as principal (*Filt Air Ltd vs. The State of Israel Tax Authority*, 2015; *The State of Israel vs. Filt Air Ltd*, 2017).
- In June 2021 the Central District Court was required to decide whether a communication device is ‘special for cable reception’. The court ruled that ‘special’, means exclusive or almost exclusive (*Hot Telecom limited partnership vs. The State of Israel, The Tax Authority, Customs and VAT Department*, 2021).

2.5. The ‘designed’ formula

The next formula is ‘design’, meaning goods which are ‘designed to...’.

Designed, as defined in the dictionary (dictionary.com, n.d.), means made or done intentionally, intended or planned. This phrase again raises the question of whether it is more exclusive, main, or special, as presented before.

The designed connection formula exists on the international level as outlined in [Table 6](#).

Table 6. HS codes including the ‘designed’ formula

Chapter	Heading	Subheading	Description
30	06	30	Opacifying preparations for X-ray examinations; diagnostic reagents <u>designed</u> to be administered to the patient
84	13	10	Pumps fitted or <u>designed</u> to be fitted with a measuring device
84	18	91	Furniture <u>designed</u> to receive refrigerating or freezing equipment
84	26	91	Ships’ derricks; cranes, including cable cranes; mobile lifting frames, straddle carriers and works trucks fitted with a crane Other machinery – <u>Designed</u> for mounting on road vehicles
85	13	-	Portable electric lamps <u>designed</u> to function by their own source of energy (for example, dry batteries, accumulators, magnetos), other than lighting equipment of heading 85.12
87	04	10	Dumpers <u>designed</u> for off-highway use
90	13	10	Telescopic sights for fitting to arms; periscopes; telescopes <u>designed</u> to form parts of machines, appliances, instruments or apparatus of this Chapter or Section XVI
93	03	-	Other firearms and similar devices which operate by the firing of an explosive charge (for example, sporting shotguns and rifles, muzzle-loading firearms, Very pistols and other devices <u>designed</u> to project only signal flares, pistols and revolvers for firing blank ammunition, captive-bolt humane killers, line-throwing guns)
96	11	-	Date, sealing or numbering stamps, and the like (including devices for printing or embossing labels), <u>designed</u> for operating in the hand; hand-operated composing sticks and hand printing sets incorporating such composing sticks.

2.6. The ‘intended’ formula

The next connection formula uses the word ‘intention’, meaning goods which are intended for a use. Intended, according to the dictionary, is purposed or designed (dictionary.com, n.d.).

This formula exists in the following HS codes as shown in [Table 7](#).

Table 7. HS codes including the ‘intended’ formula

Chapter	Heading	Subheading	Description
24	04	-	Products containing tobacco, reconstituted tobacco, nicotine, or tobacco or nicotine substitutes, intended for inhalation without combustion; other nicotine containing products <i>intended</i> for the intake of nicotine into the human body
85	05		Electro-magnets; permanent magnets and articles <i>intended</i> to become permanent magnets after magnetisation; electro-magnetic or permanent magnet chucks, clamps and similar holding devices; electro-magnetic couplings, clutches and brakes; electro-magnetic lifting heads.

It appears from the relevant literature that the European Union Court of Justice (ECJ) sometimes uses the ‘intended use’ formula to classify goods even when the word ‘intended’ is not listed in the HS codes themselves, as noted, ‘The ECJ also relies on an “intended use” criterion in its interpretive rulings under Rule 1’ (Vermulst, 1994, p. 1271).

On the other hand, there were cases where the ECJ ignored the intended use and explained it is a difficult parameter to conclude:

The method employed for producing the article and the actual use for which the article is intended cannot be adopted by [customs] authorities as criteria for tariff classification, since they are factors which are not apparent from the external characteristics of the goods and cannot therefore be easily appraised by the customs authorities...

The Court argues that such criteria are too subjective: they are not inherent characteristics of the goods, so customs authorities cannot rely on them at the time of importation.’ (Vermulst, 1994, pp. 1282, 1283)

Irish states:

According to this approach, if the intended use is not inherent in the physical characteristics of the goods, it should not be a factor in determining classification. (Irish, 2008, p. 5)

Since ‘intention’ is relatively subjective — one importer can use the goods in one way, while another importer can use the goods in a different way — the intention parameter for classifying goods seems to be problematic.

2.7. The ‘suitable’ formula

The following connection formula uses the word ‘suitable’, meaning goods which are suitable for a purpose. ‘Suitable’ is defined as appropriate, fitting or becoming (dictionary.com, n.d.).

The differences between suitable, intended, designed and special may raise interpretation questions.

The ‘suitable’ HS codes include those outlined in [Table 8](#).

Table 8. HS codes including the ‘suitable’ formula

Chapter	Heading	Subheading	Description
35	06	10	Products <u>suitable</u> for use as glues or adhesives, put up for retail sale as glues or adhesives, not exceeding a net weight of 1 kg
43	01	90	Heads, tails, paws and other pieces or cuttings, <u>suitable</u> for furriers' use
59	-	-	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind <u>suitable</u> for industrial use
70	07	21	Safety glass, consisting of toughened (tempered) or laminated glass. – Of size and shape <u>suitable</u> for incorporation in vehicles, aircraft, spacecraft or vessels.

There is also ‘equally suitable’, see Subheading 84.73-50 — Parts and accessories equally suitable for use with the machines of two or more of the headings 84.70 to 84.72.

2.8. ‘Of a kind’ formula

As presented above, there are goods of the type used solely or principally. The next formula deals with goods which are ‘just’ of the type/kind used, without a requirement of primary or exclusive, but of the type used in..., of the type used for..., or of the type used as...

‘Of a kind’ is defined as of some sort, but not a typical or perfect specimen (dictionary.com, n.d.).

The HS codes which include this connection formula are outlined in [Table 9](#).

Table 9. HS codes including ‘of a kind’ formula

Chapter	Heading	Subheading	Description
12	09	-	Seeds, fruit and spores, <u>of a kind used</u> for sowing
32	06		Other colouring matter; preparations... inorganic products <u>of a kind used</u> as luminophores, whether or not chemically defined
40	12	13	Re-treaded or used pneumatic tyres of rubber; solid or cushion tyres, tyre treads and tyre flaps, of rubber – <u>Of a kind used</u> on aircraft
48	02	20	Paper and paperboard <u>of a kind used</u> as a base for photo-sensitive, heat-sensitive or electro-sensitive paper or paperboard
63	05	-	Sacks and bags, <u>of a kind used</u> for the packing of goods
84	13	11	Pumps for dispensing fuel or lubricants, <u>of the type used</u> in filling-stations or in garages
84	25	41	Pulley tackle and hoists other than skip hoists; winches and capstans; jacks. Built-in jacking systems <u>of a type used</u> in garages
85	12	10	Lighting or visual signalling equipment <u>of a kind used</u> on bicycles
87	09	-	Works trucks, self-propelled, not fitted with lifting or handling equipment, <u>of the type used</u> in factories, warehouses, dock areas or airports for short distance transport of goods; tractors of the type used on railway station platforms; parts of the foregoing vehicles.

In the literature it is mentioned that the phrase ‘of a kind used’ does not demand a primary or special use:

Standard formulations are that the goods are ‘of a kind used with’ some other goods or ‘of a kind used in’ a certain application...

According to the tribunal [the Canadian International Trade Tribunal], if Parliament [of Canada] had intended to require that the imports be designed to be used primarily in a certain way, the description would have stated it specifically. To be classified in the tariff item, imports had to be capable of, or suitable for, use with the listed goods, but there was no need to demonstrate primary use or any actual use at all. (Irish, 2008, pp. 27, 28)

In one EU case mentioned in the literature (Vermulst, 1994, p. 1271), the ECJ needed to interpret the phrase ‘of a kind used in..’ and applied the ‘intended use’ formula as an assisting rule.

It is interesting to note that in an old case in 1998 the Israeli Court needed to interpret whether an imported machine could be classified as ‘of a kind used for selling bus tickets’ (*Haim Brunstein vs. Customs, VAT and Purchase tax Director*, 1998). In reality, it was undisputable that the machine could not fulfil this purpose at the time of importation. It had to be adjusted to do this in Israel in a relatively simple process. The court ruled that the term ‘of a kind used as...’ shall be interpreted as goods having the potential use, even if at time of importation the goods are unable to serve this purpose.

2.9. The ‘for’ formula

The next connection formula will demonstrate that even one short word, such as ‘for’, can create a formula. Apparently, this is the loosest connection formula. It does not require exclusive, primary, special, or intended use. If the goods can be used for the purpose defined, even if they have many other uses, they can be classified in this description.

Some examples of this loose connection formula are outlined in [Table 10](#).

Table 10. HS codes including the ‘for’ formula

Chapter	Heading	Subheading	Description
90	06	91	Photographic cameras...Parts and accessories – <u>for</u> cameras
92	09	91	Parts and accessories <u>for</u> pianos.

In Canada it was ruled that ‘for’ is a similar formula to the phrase ‘of a kind used for...’: ‘The tribunal said that the phrase ‘of a kind used for domestic purposes’ had the same meaning as ‘for domestic purposes’ (Irish, 2008, p. 28).

In 2007, the Israeli Court ruled that in the Subheading relating to ‘machinery and electrical appliances... for television’, it is sufficient that one of the uses of the goods is for television to be classified in this item, and there is no need to prove exclusive or primary use (*Bi-Sat Ltd vs. The State of Israel, Customs department, 2009*; *Bi-Sat Ltd vs. The State of Israel, Customs department, 2007*). The court further explained that the HS had many types of connection formulae, which are organised by a hierarchy, from exclusive use through to any use:

The plaintiffs rightly claim in their summaries that the enactor of the customs tariff distinguishes between several types of use of goods. When an exclusive use of goods is required for a particular purpose, this is explicitly stated. For example, it is stated in Subheading 90.06-5120 regarding cameras ‘whose sole use is in automatic data processing machines.’ Less stringent use, sufficient for a particular primary use. For example, subheading 85.04-2110 refers to a particular transformer of the type ‘whose sole or primary use is for welding or soldering’, and for example subheading 85.18-1010 refers to ‘special telephone’ microphones. The loosest degree of use is when the definition is satisfied that the goods will be used for a particular use, without it having to be a unique or exclusive use. For example, subheading 84.52-1000 refers to sewing machines of the household type. It does not have to be the sole or primary use. (*Bi-Sat Ltd vs. The State of Israel, Customs department, 2007, p. 7*)

While in Canada, a relatively different approach was noted: ‘It may be natural to expect that when goods are to be ‘for’ a certain purpose, that purpose should be their primary purpose’ (Irish, 2008, p. 29).

3. The integrated connection formulae

Up until now, one- or two-word connection formulae have been presented. When looking deeper into the HS wording, however, more complicated connection formulae can be found. Either these formulae use new concepts, or they combine a few formulae.

3.1. Normal use, or usually?

The connection formulae so far discussed have included, among others, an exclusive, primary, or of a kind used. This new formula deals with a common/normal use. Commonly is defined as often, frequently, usually or generally. Normally is defined very similarly, as ordinarily or usually (dictionary.com, n.d.).

The HS codes in [Table 11](#) use this formula.

Table 11. HS codes including the 'normal' formula

Chapter	Heading	Subheading	Description
25	17	10	Pebbles, gravel, broken or crushed stone, <u>of a kind commonly used</u> for concrete aggregates, for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated
42	02	30	Articles <u>of a kind normally</u> carried in the pocket or in the handbag.

It seems that this formula is like 'of a kind used...', and the addition of the word 'normally' or 'commonly' does not change its meaning.

3.2. Special or principal design

Formulae previously presented dealt with special goods, goods used principally for... and designed goods. Some combinations of these formulae can be found in the HS codes in [Table 12](#).

Table 12. HS codes including the 'specially designed' formula

Chapter	Heading	Subheading	Description
42	03	21	Gloves... <u>specially designed</u> for use in sports
84	28	31	Other lifting, handling, loading or unloading machinery (for example, lifts, escalators, conveyors, teleferics) – <u>Specially designed</u> for underground use
84	52	-	Sewing machines, other than book-sewing machines of heading 84.40; furniture, bases and covers <u>specially designed</u> for sewing machines; sewing machine needles
86	09	-	Containers (including containers for the transport of fluids) <u>specially designed</u> and equipped for carriage by one or more modes of transport
87	03		Motor cars and other motor vehicles <u>principally designed</u> for the transport of persons (other than those of heading 87.02), including station wagons and racing cars
90	06	30	Cameras <u>specially designed</u> for underwater use, for aerial survey or for medical or surgical examination of internal organs; comparison cameras for forensic or criminological purposes
90	30	40	Other instruments and apparatus, <u>specially designed</u> for telecommunications (for example, cross-talk meters, gain measuring instruments, distortion factor meters, psophometers).

The ‘specially designed’ phrase concerning gloves was also discussed in a Canada court case, where it was ruled that it covers gloves used and designed for the sport of target shooting (Irish, 2008, p. 31).

If the HS already has a formula for goods that are ‘special’ for a purpose, and different codes for goods ‘designed’ for a purpose, perhaps there was no rationale for creating a formula of ‘specially designed’.

3.3. The actual use

The Israeli Customs Tariff, it should be noted, also includes definitions that demand the actual, de facto use of the goods, not only potential use, to classify the goods in these Subheadings. In Israel, these are called ‘conditional exemption’ Subheadings, in which the importer must file a request, in advance, to classify the goods in these Subheadings. Section 6(f) of the Israeli Customs Tariff, rules:

For the purposes of this Section, if goods were classified according to a conditional subheading, due to a certain use or designation, the conditionality of the subheading shall apply only if the said use or designation is fulfilled.

After importation, the Israeli customs authority occasionally conducts audits to verify the post-importation use of the goods. Some examples are outlined in [Table 13](#).

Table 13. HS codes including the actual use formula

Chapter	Heading	Subheading	Description
22	08	9040	Undenatured Ethyl Alcohol...that the director-general of the ministry of health has approved that it is intended for medical needs in hospitals, health maintenance... <u>if used</u> (conditional)
85	01	4092	Electric motors and generators...other, <u>if used</u> for the manufacture of ventilators (conditional)
85	28	4910	Monitors and projectors... <u>if it serves</u> an industrial plant, scientific institutions...(conditional).

For comparison, the Canadian Customs Tariff also includes ‘actual use’ items, as noted in Irish:

The items depended on the actual use of the imported goods, not on evidence of chief or principal use in the general market. Such end use items are not part of the six-digit nomenclature of the HS...

Instead of drafting very detailed descriptions of relevant goods so that only a given industry or activity could benefit, the legislator provided for the end use directly and stipulated that the use had to be met in order for the goods to qualify...

Classification under end use items depended on the actual use of the goods imported, not on their primary, normal, or ordinary use. (Irish, 2008, pp. 3, 18, 19)

3.4. Combination of four connection formulae

The following Subheading is unique to Israel. It combines four connection formulae (exclusive, main, special, of a kind). Subheading 40.08-1110 of the Israel Customs Tariff refers to ‘Plates, sheets and strips...which are specialy and are exclusively or mainly used with a certain kind of machine or device, of any Heading of Section XVI or Chapter 90 of Section XVIII’.

4. The HS needs less connection formulae, or none

As discussed, the HS, both at the international 6-digit level and the Israeli articles, include many types of connection formulae between the goods and their use.

The connection formulae begin with exclusive, then solely or principally, followed by primary use. The HS contains concepts like special, designed, of a kind used and intended, and it is not clear in the end what the difference is between the concepts.

Moreover, there are customs Subheadings which combine two or more definitions, and even four definitions together. These connection formulae continue to create incessant discussions between importers and customs authorities in Israel and across the world. Even the courts have difficulties regarding the interpretation of these terms and sometimes conflicting rulings are pronounced.

In truth, it seems that as part of the support crew of importers, on top of the accountant, lawyer, tax consultant and customs agent, importers may soon have to hire linguists — experts in language — to interpret the language as a basis for classifying goods (Feichtner, 2008; Irish, 1994).

It is well known that many countries allow importers to apply for a pre-ruling classification decision to minimise the uncertainty (Gavier & Rovetta, 2009; Makarenko, 2019; Savage, 2022, 2023; Vermulst, 1994, pp. 1261, 1315; Weerth, 2008h).

This tool is important, but apparently is insufficient, since pre-ruling may solve the specific importation of goods, but it cannot solve the deeper interpretive question, the difference between all the connection formulae which occur in different Subheadings. Pre-ruling regime has additional problems, as was noted:

There is still a long way to go for most nations because the introduction of binding advance tariff classification rulings is not an easy task. It is not only about customs laboratories or capacity building. The introduction of binding advance rulings on tariff classification requires sound training and an infrastructure that ensures that the requests are answered in an adequate timeframe and binding information is issued (and possibly revoked) according to the current HS rules and classification decisions. (Weerth, 2008a, p. 44)

Despite the success of the HS worldwide, it seems that there are many non-defined terms and connection formulae that should be amended. Therefore, it is suggested that the definitions of the connection formulae should be reduced to three groups:

1. Group 1: Exclusive use — exclusively. Goods that have only one use. If they have more than one, even if the additional use is negligible, they will not be classified in this group. There is no longer a need for the definition of ‘exclusive or primary/principally’. It should be noted that with the advancement of technology, products designed for single use are declining.
2. Group 2: Main use — the definitions of main, principal, special, intended, designed and suitable should be removed and will be included under the new definition — main.
3. Group 3: Any use. Goods that can be proven to be used for this purpose will be classified here, even if it is not their primary use; the main issue being that it is one of their uses. This is as long as there are no other customs headings describing the main use.

Ultimately, it is recommended that the difference in definitions be minimised and all connection formulae deleted, leaving only three definitions. The HS convention mentions explicitly that its purpose was to reduce controversies in customs classification. The HS Convention states that contracting parties are:

Desiring to facilitate intentional trade.

Desiring to reduce the expense incurred by redescribing, reclassifying and recoding goods as they move from one classification system to another in the course of international trade and to facilitate the standardization of trade documentation and the transmission of data.

It is well known that the WCO amends the HS when it is deemed necessary (Grooby, 2022; Thomas, 2021; Weerth, 2008d). Therefore, to produce legislation and customs classification as clear and simple as possible, as the HS was intended to be, all non-defined connection formulae should be deleted.

Clarity is of course not the only factor in classifying goods, but it is a very important one. If the language of the HS is unclear, problems will continue to appear.

Alternatively, since ‘connection formulae’ are subjective and many cannot be determined from the physical parameters of the goods, the WCO could consider eliminating the ‘use’ condition and instead use a narrow descriptive method.

It is worth mentioning that there are scholars who believe otherwise that the ‘use’ condition should be kept:

With the adoption of the HS, it would be a mistake to abandon all consideration of use and attempt to classify goods solely according to physical properties...

A focus directed solely to physical characteristics does not, in fact, provide a secure guarantee against circumvention. (Irish, 2008, pp. 15, 16, 17)

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