81.05 - Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap.

8105.20 - Cobalt mattes and other intermediate products of cobalt metallurgy; unwrought cobalt; powders

8105.30 - Waste and scrap

8105.90 - Other

Cobalt is mainly obtained from the ores heterogenite (hydrated oxide of cobalt), linnaeite (sulphide of cobalt and nickel) and smaltite (cobalt arsenide). When smelted, the sulphide and arsenide ores produce mattes and other intermediate products. After treatment to eliminate other metals, cobalt oxide is obtained, and this is reduced with carbon, aluminium, etc. The metal is also extracted by electrolytic processes, and by treatment of the residues from the refining of copper, nickel, silver, etc.

Cobalt is a silvery, corrosion-resistant metal, harder than nickel, and is the most magnetic of the non-ferrous metals.

In its pure state, it is used as a coating for other metals (by electrolytic deposition), as a catalyst, as a binder in the manufacture of metallic carbide cutting tools, as a component of cobalt samarium magnets or of certain alloyed steels, etc.

There are many **cobalt alloys**; those which may fall in the heading in accordance with Note 5 to Section XV include :

(1) The cobalt-chromium-tungsten (" Stellite ") group (often containing small proportions of other elements). These are used in the manufacture of valves and valve seats, tools, etc., because of their resistance to wear and corrosion at high temperatures.

(2) Cobalt-iron-chromium alloys, e.g., the low thermal expansion types and powerfully magnetic group.

(3) Cobalt-chromium-molybdenum alloys, used in jet engines.

This heading covers cobalt mattes, other intermediate products of cobalt metallurgy and cobalt in all its forms, e.g., ingots, cathodes, granules, powders, waste and scrap and articles not elsewhere specified.