74.05 - Master alloys of copper.

Master alloys are defined in Chapter Note 1 (c).

The master alloys of this heading are alloys containing more than 10 % by weight of copper together with other elements, and which, because of their composition, are too brittle for normal metal working. They are therefore used either to introduce into brass, bronze or aluminium bronze, other elements with a higher melting point than those alloys, or highly oxidisable elements (e.g., aluminium, cadmium, arsenic, magnesium) or elements sublimable at the fusion temperature, or else to facilitate the preparation of certain alloys by adding de-oxidising, de-sulphurising or similar elements (e.g., calcium).

The copper acts as a solvent or diluent of the other elements and must be present in amounts sufficient to reduce the melting point or the oxidising or sublimating action of the master alloy. If the proportion of copper is too high, however, that metal unduly dilutes the other elements introduced into the alloys. The copper content generally ranges between 30 and 90 % in these products but may, in special cases, be above or below these limits.

The heading therefore **excludes**, for example, any copper-nickel alloy, even if intended for use as a master alloy, since copper-nickel alloys are usefully malleable in all proportions. Other alloys, for example copper manganese and copper-silicon alloys, may or may not be malleable according to the proportions of the constituent metals present; in such cases the heading covers **only** those alloys which are not usefully malleable.

Master alloys of this heading include copper aluminium, copper beryllium, copper boron, copper cadmium, copper chromium, copper iron, copper magnesium, copper manganese, copper molybdenum, copper silicon, copper titanium or copper vanadium.

Master alloys are generally in the form of small blocks or cakes divided for easy breaking, brittle sticks or pellets, and have the appearance of crude foundry products.

Copper phosphide (phosphor copper) containing more than 15 % by weight of phosphorus falls in **heading 28.53**.