

CHAPTER 81  
OTHER BASE METALS; CERMETS; ARTICLES THEREOF

XV  
81-1

Subheading Note

1. Note 1 to chapter 74, defining "bars and rods", "profiles", "wire", and "plates, sheets, strip and foil" applies, mutatis mutandis, to this chapter.

Additional U.S. Notes

1. Alloys of each of the base metals provided for in chapter 81 are metals in which the content of the respective base metal is, by weight, less than 99 percent, but not less than any other metallic element.
2. For the purposes of subheading 8108.90.60, the rate of duty "Free (C)" appearing in the "Special" subcolumn applies only to tubes and pipes with attached fittings, suitable for conducting gases or liquids.

|            |    |                                                                                                             |          |                                       |      |                        |                                       |  |  |
|------------|----|-------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|------|------------------------|---------------------------------------|--|--|
| 8101       |    | Tungsten (wolfram) and articles thereof, including waste and scrap:                                         |          |                                       |      |                        |                                       |  |  |
| 8101.10.00 | 00 | Powders.....                                                                                                | kg.....v | 7%                                    | Free | (A+,CA,E,IL, 58% J,MX) |                                       |  |  |
|            |    | tungsten content..                                                                                          | kg       |                                       |      |                        |                                       |  |  |
| 8101.91    |    | Other:                                                                                                      |          |                                       |      |                        |                                       |  |  |
|            |    | Unwrought tungsten, including bars and rods obtained simply by sintering; waste and scrap:                  |          |                                       |      |                        |                                       |  |  |
| 8101.91.10 | 00 | Waste and scrap.....                                                                                        | kg.....v | 2.8%                                  | Free | (A,CA,E,IL,J, 50% MX)  |                                       |  |  |
|            |    | tungsten content..                                                                                          | kg       |                                       |      |                        |                                       |  |  |
| 8101.91.50 | 00 | Unwrought.....                                                                                              | kg.....  | 6.6%                                  | Free | (A+,CA,E,IL, 60% J,MX) |                                       |  |  |
| 8101.92.00 | 00 | Bars and rods, other than those obtained simply by sintering, profiles, plates, sheets, strip and foil..... | kg.....  | 6.5%                                  | Free | (A+,CA,E,IL, 60% J,MX) |                                       |  |  |
| 8101.93.00 | 00 | Wire.....                                                                                                   | kg.....  | 4.4%                                  | Free | (A+,CA,E,IL, 60% J,MX) |                                       |  |  |
| 8101.99.00 | 00 | Other.....                                                                                                  | kg.....  | 3.7%                                  | Free | (A,CA,E,IL,J, 45% MX)  |                                       |  |  |
| 8102       |    | Molybdenum and articles thereof, including waste and scrap:                                                 |          |                                       |      |                        |                                       |  |  |
| 8102.10.00 | 00 | Powders.....                                                                                                | kg.....v | 9.1¢/kg on molybdenum content + 1.2%  | Free | (A+,CA,E,IL, J,MX)     | \$1.10/kg on molybdenum content + 15% |  |  |
|            |    | molybdenum content..                                                                                        | kg       |                                       |      |                        |                                       |  |  |
| 8102.91    |    | Other:                                                                                                      |          |                                       |      |                        |                                       |  |  |
|            |    | Unwrought molybdenum, including bars and rods obtained simply by sintering; waste and scrap:                |          |                                       |      |                        |                                       |  |  |
| 8102.91.10 | 00 | Unwrought.....                                                                                              | kg.....v | 13.9¢/kg on molybdenum content + 1.9% | Free | (A+,CA,E,IL, J,MX)     | \$1.10/kg on molybdenum content + 15% |  |  |
|            |    | molybdenum content..                                                                                        | kg       |                                       |      |                        |                                       |  |  |
| 8102.91.50 | 00 | Waste and scrap.....                                                                                        | kg.....v | Free                                  |      |                        | Free                                  |  |  |
|            |    | molybdenum content..                                                                                        | kg       |                                       |      |                        |                                       |  |  |
| 8102.92    |    | Bars and rods, other than those obtained simply by sintering, profiles, plates, sheets, strip and foil:     |          |                                       |      |                        |                                       |  |  |
| 8102.92.30 | 00 | Bars and rods.....                                                                                          | kg.....  | 6.6%                                  | Free | (A,CA,E,IL,J, 60% MX)  |                                       |  |  |
| 8102.92.60 | 00 | Other.....                                                                                                  | kg.....  | 6.6%                                  | Free | (A,CA,E,IL,J, 60% MX)  |                                       |  |  |
| 8102.93.00 | 00 | Wire.....                                                                                                   | kg.....  | 4.4%                                  | Free | (A,CA,E,IL,J, 60% MX)  |                                       |  |  |
| 8102.99.00 | 00 | Other.....                                                                                                  | kg.....  | 3.7%                                  | Free | (A,CA,E,IL,J, 45% MX)  |                                       |  |  |
| 8103       |    | Tantalum and articles thereof, including waste and scrap:                                                   |          |                                       |      |                        |                                       |  |  |
| 8103.10    |    | Unwrought tantalum, including bars and rods obtained simply by sintering; waste and scrap; powders:         |          |                                       |      |                        |                                       |  |  |
| 8103.10.30 | 00 | Waste and scrap.....                                                                                        | kg.....  | Free                                  |      |                        | Free                                  |  |  |
| 8103.10.60 |    | Other.....                                                                                                  |          | 2.5%                                  | Free | (A,CA,E,IL,J, 25% MX)  |                                       |  |  |
|            | 30 | Powders.....                                                                                                | kg       |                                       |      |                        |                                       |  |  |
|            | 90 | Other.....                                                                                                  | kg       |                                       |      |                        |                                       |  |  |
| 8103.90.00 | 00 | Other.....                                                                                                  | kg.....  | 4.4%                                  | Free | (A,CA,E,IL,J, 45% MX)  |                                       |  |  |

|            |    |                                                                                                                             |          |                                           |                             |                     |  |
|------------|----|-----------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------|-----------------------------|---------------------|--|
| 8104       |    | Magnesium and articles thereof, including waste and scrap:                                                                  |          |                                           |                             |                     |  |
| 8104.11.00 | 00 | Unwrought magnesium:<br>Containing at least 99.8 percent by weight of magnesium.....                                        | kg.....  | 8%                                        | Free (A*,CA,E,IL, J,MX)     | 100%                |  |
| 8104.19.00 | 00 | Other.....                                                                                                                  | kg.....v | 6.5%                                      | Free (A+,CA,E,IL, J,MX)     | 60.5%               |  |
| 8104.20.00 | 00 | Waste and scrap.....                                                                                                        | kg.....  | Free                                      |                             | Free                |  |
| 8104.30.00 | 00 | Raspings, turnings and granules, graded according to size; powders.....                                                     | kg.....v | 4.4%                                      | Free (A+,CA,E,IL, J,MX)     | 60.5%               |  |
| 8104.90.00 | 00 | Other.....                                                                                                                  | kg.....v | 14.8¢/kg on magnesium content + content + | Free (A,B,CA,E,IL, J,MX)    | 88¢/kg on magnesium |  |
|            |    |                                                                                                                             |          | 3.5%                                      |                             | 20%                 |  |
| 8105       |    | Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap: |          |                                           |                             |                     |  |
| 8105.10    |    | Cobalt mattes and other intermediate products of cobalt metallurgy; unwrought cobalt; waste and scrap; powders:             |          |                                           |                             |                     |  |
| 8105.10.30 | 00 | Unwrought cobalt:<br>Alloys.....                                                                                            | kg.....  | 4.4%                                      | Free (A+,CA,E,IL, J,MX)     | 45%                 |  |
| 8105.10.60 | 00 | Other.....                                                                                                                  | kg.....  | Free                                      |                             | Free                |  |
| 8105.10.90 | 00 | Other.....                                                                                                                  | kg.....  | Free                                      |                             | Free                |  |
| 8105.90.00 | 00 | Other.....                                                                                                                  | kg.....  | 3.7%                                      | Free (A,CA,E,IL,J, MX)      | 45%                 |  |
| 8106.00.00 | 00 | Bismuth and articles thereof, including waste and scrap.....                                                                | kg.....  | Free                                      |                             | 7.5%                |  |
| 8107       |    | Cadmium and articles thereof, including waste and scrap:                                                                    |          |                                           |                             |                     |  |
| 8107.10.00 | 00 | Unwrought cadmium; waste and scrap; powders...                                                                              | kg.....  | Free                                      |                             | 33¢/kg              |  |
| 8107.90.00 | 00 | Other.....                                                                                                                  | kg.....  | 4.4%                                      | Free (A,CA,E,IL,J, MX)      | 45%                 |  |
| 8108       |    | Titanium and articles thereof, including waste and scrap:                                                                   |          |                                           |                             |                     |  |
| 8108.10    |    | Unwrought titanium; waste and scrap; powders:                                                                               |          |                                           |                             |                     |  |
| 8108.10.10 | 00 | Waste and scrap.....                                                                                                        | kg.....  | Free                                      |                             | Free                |  |
| 8108.10.50 |    | Other.....                                                                                                                  |          | 15%                                       | Free (A+,CA,E,IL, J,MX)     | 25%                 |  |
|            | 10 | Sponge.....                                                                                                                 | kg       |                                           |                             |                     |  |
|            |    | Other:                                                                                                                      |          |                                           |                             |                     |  |
|            | 15 | Powders.....                                                                                                                | kg       |                                           |                             |                     |  |
|            | 30 | Ingots.....                                                                                                                 | kg       |                                           |                             |                     |  |
|            | 45 | Billets.....                                                                                                                | kg       |                                           |                             |                     |  |
|            | 60 | Blooms, sheet bars and slabs...                                                                                             | kg       |                                           |                             |                     |  |
|            | 90 | Other.....                                                                                                                  | kg       |                                           |                             |                     |  |
| 8108.90    |    | Other:                                                                                                                      |          |                                           |                             |                     |  |
| 8108.90.30 |    | Articles of titanium.....                                                                                                   |          | 5.5%                                      | Free (A,CA,E,IL,J, MX)      | 45%                 |  |
|            | 30 | Castings.....                                                                                                               | kg       |                                           |                             |                     |  |
|            | 60 | Other.....                                                                                                                  | kg       |                                           |                             |                     |  |
| 8108.90.60 |    | Other.....                                                                                                                  |          | 15%                                       | Free (A,C 1/,CA, E,IL,J,MX) | 45%                 |  |
|            | 30 | Bars, rods, profiles and wire.....                                                                                          | kg       |                                           |                             |                     |  |
|            | 45 | Plates, sheets, strips and foil.....                                                                                        | kg       |                                           |                             |                     |  |
|            | 60 | Tubes and pipes.....                                                                                                        | kg       |                                           |                             |                     |  |
|            | 75 | Other.....                                                                                                                  | kg       |                                           |                             |                     |  |

1/ See additional U.S. note 2 to this chapter.

|            |    |                                                                                                                                                                         |          |      |      |                   |  |      |         |
|------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|------|-------------------|--|------|---------|
| 8109       |    | Zirconium and articles thereof, including waste and scrap:                                                                                                              |          |      |      |                   |  |      |         |
| 8109.10    |    | Unwrought zirconium; waste and scrap; powders:                                                                                                                          |          |      |      |                   |  |      |         |
| 8109.10.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  | Free |         |
| 8109.10.60 | 00 | Other.....                                                                                                                                                              | kg.....  | 4.2% | Free | (A+,CA,E,IL,J,MX) |  | 25%  |         |
| 8109.90.00 | 00 | Other.....                                                                                                                                                              | kg.....  | 3.7% | Free | (A,CA,E,IL,J,MX)  |  | 45%  |         |
| 8110.00.00 | 00 | Antimony and articles thereof, including waste and scrap.....                                                                                                           | kg.....  | Free |      |                   |  |      | 4.4¢/kg |
| 8111.00    |    | Manganese and articles thereof, including waste and scrap:                                                                                                              |          |      |      |                   |  |      |         |
| 8111.00.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  |      | Free    |
| 8111.00.45 | 00 | Other: Unwrought manganese.....                                                                                                                                         | kg.....  | 14%  | Free | (A+,CA,E,IL,J,MX) |  | 20%  |         |
| 8111.00.60 | 00 | Other.....                                                                                                                                                              | kg.....  | 3.7% | Free | (A,CA,E,IL,J,MX)  |  | 45%  |         |
| 8112       |    | Beryllium, chromium, germanium, vanadium, gallium, hafnium, indium, niobium (columbium), rhenium and thallium, and articles of these metals, including waste and scrap: |          |      |      |                   |  |      |         |
|            |    | Beryllium:                                                                                                                                                              |          |      |      |                   |  |      |         |
| 8112.11    |    | Unwrought; waste and scrap; powders:                                                                                                                                    |          |      |      |                   |  |      |         |
| 8112.11.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  |      | Free    |
| 8112.11.60 | 00 | Other.....                                                                                                                                                              | kg.....  | 8.5% | Free | (A,CA,E,IL,J,MX)  |  | 25%  |         |
| 8112.19.00 | 00 | Other.....                                                                                                                                                              | kg.....  | 5.5% | Free | (A,CA,E,IL,J,MX)  |  | 45%  |         |
| 8112.20    |    | Chromium:                                                                                                                                                               |          |      |      |                   |  |      |         |
| 8112.20.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  |      | Free    |
| 8112.20.60 | 00 | Other.....                                                                                                                                                              | kg.....  | 3%   | Free | (A,CA,E,IL,J,MX)  |  | 30%  |         |
| 8112.30    |    | Germanium:                                                                                                                                                              |          |      |      |                   |  |      |         |
| 8112.30.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  |      | Free    |
| 8112.30.60 | 00 | Other: Unwrought.....                                                                                                                                                   | kg.....  | 2.6% | Free | (A*,CA,E,IL,J,MX) |  | 25%  |         |
| 8112.30.90 | 00 | Other.....                                                                                                                                                              | kg.....  | 4.4% | Free | (A,CA,E,IL,J,MX)  |  | 45%  |         |
| 8112.40    |    | Vanadium:                                                                                                                                                               |          |      |      |                   |  |      |         |
| 8112.40.30 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....v | Free |      |                   |  |      | Free    |
| 8112.40.60 | 00 | Other..... vanadium content..                                                                                                                                           | kg.....v | 2%   | Free | (A+,CA,E,IL,J,MX) |  | 25%  |         |
|            |    | Other:                                                                                                                                                                  |          |      |      |                   |  |      |         |
| 8112.91    |    | Unwrought; waste and scrap; powders:                                                                                                                                    |          |      |      |                   |  |      |         |
| 8112.91.05 | 00 | Waste and scrap.....                                                                                                                                                    | kg.....  | Free |      |                   |  |      | Free    |
| 8112.91.10 | 00 | Other: Gallium.....                                                                                                                                                     | kg.....  | 3%   | Free | (A,CA,E,IL,J,MX)  |  | 25%  |         |
| 8112.91.20 | 00 | Hafnium.....                                                                                                                                                            | kg.....  | Free |      |                   |  |      | 25%     |
| 8112.91.30 | 00 | Indium.....                                                                                                                                                             | kg.....  | Free |      |                   |  |      | 25%     |
| 8112.91.40 | 00 | Niobium (columbium).....                                                                                                                                                | kg.....  | 4.9% | Free | (A+,CA,E,IL,J,MX) |  | 25%  |         |
| 8112.91.50 | 00 | Rhenium.....                                                                                                                                                            | kg.....  | 3%   | Free | (A,CA,E,IL,J,MX)  |  | 25%  |         |
| 8112.91.60 | 00 | Thallium.....                                                                                                                                                           | kg.....  | 4%   | Free | (A+,CA,E,IL,J,MX) |  | 25%  |         |
| 8112.99.00 | 00 | Other.....                                                                                                                                                              | kg.....  | 4%   | Free | (A,CA,E,IL,J,MX)  |  | 45%  |         |
| 8113.00.00 | 00 | Cermets and articles thereof, including waste and scrap.....                                                                                                            | kg.....  | 3.7% | Free | (A,CA,E,IL,J,MX)  |  |      |         |