RUBIDIUM

(Data in kilograms of rubidium content, unless otherwise noted)

<u>Domestic Production and Use</u>: Although rubidium is not recovered from any domestically mined ores, it is thought that at least one domestic company manufactured rubidium products from imported lepidolite ore. Small quantities of rubidium, usually in the form of chemical compounds, were used mainly in research and development. Rubidium also was used in electronic and medical applications.

<u>Salient Statistics—United States</u>: Salient statistics, such as production, consumption, imports, and exports, are not available.

The rubidium market is very small. There is no active trading of the metal and, therefore, no market price. However, several companies publish prices for rubidium and rubidium compounds. These prices are relatively stable for several years. The per-unit price for the metal or compounds purchased from these companies varies inversely with the quantity of material purchased. For example, in 1996, one company offered 1-gram ampoules of 99.8%-grade rubidium metal at \$42.40. The price for 100 grams of the same material from this company was \$571.00 or \$5.71 per gram. At another company, the price for a 1-gram ampoule of 99.6% pure rubidium was \$32.75.

Recycling: None.

<u>Import Sources (1992-95)</u>: The United States is 100% import reliant. Although there is no information on the countries shipping rubidium-bearing material to the United States, Canada is thought to be the major source of this raw material.

 Tariff:
 Item
 Number
 Most favored nation (MFN)
 Non-MFN¹

 12/31/96
 12/31/96
 12/31/96

 Alkali metals, other
 2805.19.0000
 6.2% ad val.
 25% ad val.

Depletion Allowance: 14% (Domestic), 14% (Foreign).

Government Stockpile: None.

RUBIDIUM

Events, Trends, and Issues: Rubidium and its compounds were largely the subject of laboratory study, and were of little commercial significance. No major breakthroughs or developments were anticipated that would change the production or consumption patterns. Domestic rubidium production is entirely dependent on imported lepidolite ores. Because of the small scale of production of rubidium products, no significant environmental problems have been encountered.

World Mine Production, Reserves, and Reserve Base: Data on mine production of rubidium are not available. Reserves and the reserve base² for rubidium in North America were estimated at 2 million and 2.3 million kilograms, respectively.

<u>World Resources</u>: Rubidium forms no known minerals in which it is the predominant metallic constituent. It occurs chiefly as a replacement for potassium, especially in minerals formed late in the crystallization of pegmatites. Meaningful estimates of world rubidium resources have not been made, but lepidolite, a potassium lithium mica, may contain up to 1.35% rubidium, and pollucite, a cesium silicate, may contain up to 3.15% rubidium.

<u>Substitutes</u>: The properties of cesium and its compounds are so similar to those of rubidium and its compounds that compounds of rubidium and cesium are used interchangeably in many applications.

¹See Appendix B.

²See Appendix C for definitions.