

RUBIDIUM¹

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

Domestic Production and Use: Although rubidium is not recovered from any domestically mined ores, 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.

Salient Statistics—United States: Salient statistics, such as production, consumption, imports, and exports, are not available. The domestic rubidium market is very small, with annual consumption probably amounting to only a few thousand kilograms. 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 remain relatively stable for several years. The per-unit price for the metal or compounds varies inversely with the quantity of material purchased. For example, in 2002, one company offered 1-gram ampoules of 99.8%-grade rubidium metal at \$52.00; the price for 100 grams of the same material from this company was \$998.00, or \$9.98 per gram.

Recycling: None.

Import Sources (1998-2001): 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	Normal Trade Relations
		<u>12/31/02</u>
Alkali metals, other	2805.19.9000	5.5% ad val.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Consumption of rubidium and its compounds was of little commercial significance. No major breakthroughs or developments are anticipated that would change rubidium production or consumption patterns. Domestic rubidium production is entirely dependent upon imported lepidolite ores. Because of the small scale output of rubidium products, no significant environmental problems have been encountered.

World Mine Production, Reserves, and Reserve Base: Rubidium forms no known minerals in which it is the predominant metallic element. Rather, it substitutes for potassium in a number of minerals, especially those that crystallize late in the formation of pegmatites. Lepidolite, a potassium lithium mica that may contain up to 3.15% rubidium, is the principal ore of rubidium. Pollucite, a cesium aluminosilicate mineral, may contain up to 1.35% rubidium. Rubidium-bearing minerals are mined as byproducts or coproducts with other pegmatite minerals.

World Resources: Total world resources of rubidium are unknown.

Substitutes: 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.

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