

Zinc

USGS zinc commodity specialist Jozef Plachy has adapted the following information on zinc from the USGS Mineral Commodity Summaries 2002.

Used in hundreds of consumer goods, rubber products and medicines, zinc is the fourth most widely used metal after iron, aluminum and copper. Its excellent corrosion resistance and high reactivity with iron make it important to steel galvanizing and account for its use in innumerable products worldwide. About three-fourths of zinc is used in its metallic form. Rubber, chemicals, paint and agricultural industries use most of the remaining zinc primarily in zinc-based compounds. In the health industry, zinc is a key component in sun creams and healing ointment for wounds and burns. It is an essential trace element for proper functioning of bodily organs.

The United States is the world's fifth largest zinc producer. U.S. zinc mining and metal production decreased in 2001 due to global oversupply and a consequent decline in zinc prices. In response to the lower prices, some U.S. mines closed and production was curtailed at other domestic zinc mines. By year-end 2001, 12 mines in five states were producing zinc. The Red Dog Mine in Alaska has been the leading U.S. producer every year since it opened in 1990.

Domestic mines meet only about one-third of the U.S. zinc demand. To satisfy that demand, the United States has become the world's largest importer of refined zinc metal. Canada and Mexico are the leading sources of U.S. imports because of their location and because the United States can import all three main forms of zinc—concentrate, metal, and scrap—duty-free from those countries.

Identified zinc resources of the world total about 1.9 billion metric tons. Total world production of zinc concentrate by 41 countries increased about 1 percent to 9.9 million tons during 2001. The largest producers were China, Australia, Peru, Canada and the United States.

Originally published as *Geotimes* Mineral Resource of the Month, October 2002
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The mineral sphalerite is the primary ore of zinc. Image from *Minerals in Your World*.