

Mineral Industry Surveys

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BISMUTH IN THE THIRD QUARTER 2005

Bismuth consumption in the United States for the third quarter was 569 metric tons (t), which represented a 3% decline compared with consumption in the second quarter of 2005 according to estimates compiled by the U.S. Geological Survey. Bismuth consumption in the United States for the first 9 months of 2005 was 1,750 t, a decline of 4% from that of the comparable period of 2004. The consumption breakdown for bismuth during the first 9 months of 2005 was 47% for metallurgical additives and galvanizing; 29% for fusible alloys, solders, and ammunition; and 24% for chemical and pharmaceutical uses (table 2).

Imports of bismuth were 1,710 t for the first 8 months of 2005, representing an increase of 27% over those of the comparable period of 2004. During the first 8 months of 2005, Belgium was the leading supplier to the United States, followed by China, Mexico, and the United Kingdom.

The New York dealer price for bismuth, as published in Platts Metals Week, began the third quarter of 2005 at a price of \$3.55 per pound, then rose steadily through the third quarter to end the quarter at \$4.40 per pound. The average bismuth price for the third quarter was \$4.18 per pound, a 19% increase over that of the second quarter 2005, and a 15% increase over that of the third quarter of 2004.

A report from China, the world's leading bismuth producing country, indicated that Chinese bismuth exports during the first 8 months of 2005 totaled 4,500 t up marginally from the 4,400 t recorded for the similar period of 2004. Deliveries to Belgium for the first 8 months of 2005 accounted for 35% of the total exported. Other leading destinations included the United Kingdom, Mexico, the Netherlands, and Japan (Metal-Pages, 2005§¹).

¹References that include a section mark (§) are found in the Internet References Cited section.

Sidech (Belgium), a leading refiner of bismuth and other minor metals such as indium, selenium, and tellurium announced that it had been approved for membership in the Minor Metals Trade Association (MMTA) (United Kingdom). Sidech's inclusion into the MMTA brings MMTA's total membership to 70 firms (Metal Bulletin, 2005).

In China, it was announced that a 300-metric-ton-per-year (t/yr) bismuth production facility began operation in Chifeng City, Inner Mongolia, on June 7. The facility was funded by Yunnan Copper Bismuth Company, a joint venture between Yunnan Copper and two large-scale bismuth producers in Chenzhou (Hunan Province). Another facility located in the industrial zone of Yunnan Copper in Dongchuan district was expected to start production in September. Upon completion of the project, the combined capacity of the three production facilities would reach 1,000 t/yr (Antaïke, 2005§).

Update

On November 17, 2005, the Platts Metal Week price for bismuth was \$4.67 per pound.

Reference Cited

Metal Bulletin, 2005, Sidech becomes MMTA member: Metal Bulletin, no. 8910, September 12, p. 43.

Internet References Cited

Antaïke, Precious and Minor Metals Monthly, 2005 (July), Indium-Bismuth-Cadmium, accessed August 9, 2005 via URL <http://www.antaïke.com>.
Metal-Pages, 2005 (July 13), Sidech applies for MMTA membership, accessed July 13, 2005, via URL <http://www.metal-pages.com>.

TABLE 1
SALIENT BISMUTH STATISTICS¹

(Kilograms unless otherwise specified)

	2004	2005			
		First quarter	Second quarter	Third quarter	Year to date
Consumption ^e	2,420,000	595,000	588,000	569,000	1,750,000
Exports ²	109,000	22,000	33,000	18,400 ³	73,400
Imports for consumption	1,980,000	720,000	527,000	467,000 ³	1,710,000
Price per pound, dealer, average of period	\$3.35	\$3.55	\$3.52	\$4.18	\$4.18
Stocks, end of period, consumer	134,000	132,000	134,000	139,000	XX

^eEstimated. XX Not applicable.

¹Data are rounded to no more than three significant digits.

²Comprises bismuth metal and the bismuth content of alloys and waste and scrap.

³Includes July and August; September data were not available at time of publication.

TABLE 2
ESTIMATED BISMUTH METAL CONSUMED IN THE UNITED STATES, BY USE¹

(Kilograms)

Use	2004	2005			
		First quarter	Second quarter	Third quarter	Year to date
Chemicals ²	584,000	146,000	146,000	124,000	416,000
Bismuth alloys	703,000	175,000	168,000	165,000	508,000
Metallurgical additives	1,110,000	271,000	270,000	275,000	817,000
Other	22,000	3,130	3,840	3,840	10,800
Total	2,420,000	595,000	588,000	569,000	1,750,000

¹Data are rounded to no more than three significant digits, may not add to totals shown.

²Includes industrial and laboratory chemicals, cosmetics, and pharmaceuticals.

TABLE 3
U.S. EXPORTS OF BISMUTH METAL, ALLOYS AND WASTE AND SCRAP, BY COUNTRY¹

(Kilograms, metal content)

Country	2004	2005				
		June	Second quarter	July	August	January - August
Belgium	2,720	--	--	63	--	63
Brazil	1,140	--	--	--	--	189
Canada	46,000	810	14,500	7,210	5,380	40,000
China	99	--	4	31	--	35
Dominica	53	--	--	--	--	--
Dominican Republic	11,100	123	1,970	50	1,170	3,440
France	--	--	10,100	--	--	10,100
Germany	1	--	--	--	--	--
Guatemala	229	--	--	--	--	--
Hong Kong	360	--	84	--	--	129
India	--	--	2,000	--	--	2,000
Ireland	--	--	--	--	--	309
Italy	113	--	--	--	--	--
Japan	5,320	--	--	--	--	2,100
Korea, Republic of	75	--	--	--	--	--
Malaysia	--	--	11	--	--	11
Mexico	28,500	--	4,110	4,360	175	13,100
Russia	2,090	--	--	--	--	--
Singapore	59	--	--	--	--	--
South Africa	--	--	98	--	--	98
Spain	--	--	--	--	--	1,000
Taiwan	--	--	29	--	20	49
United Kingdom	10,700	--	5	5	--	733
Total	109,000	933	32,900	11,700	6,740	73,400

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF BISMUTH METAL, BY COUNTRY¹

(Kilograms)

Country	2004	2005				
		June	Second quarter	July	August	January - August
Bahamas, The	1,910	--	723	--	--	723
Belgium	793,000	50,800	208,000	119,000	72,300	753,000
Canada	8,760	--	1,390	718	1,320	6,770
China	169,000	40,000	101,000	80,000	69,800	449,000
Germany	162,000	72	179	39	18,200	18,500
Hong Kong	77,100	--	--	--	--	--
Italy	--	106	106	--	--	106
Mexico	495,000	59,400	119,000	40,000	19,800	299,000
Netherlands	232	--	4	--	--	4
Peru	39,800	--	--	--	--	--
Russia	52	--	--	--	--	--
Spain	500	--	--	--	400	700
United Kingdom	237,000	19,900	95,100	12,200	32,900	186,000
Total	1,980,000	170,000	527,000	252,000	215,000	1,710,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.