

# Mineral Industry Surveys

#### For information, contact:

James F. Carlin, Jr., Tin Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192 Telephone: (703) 648-4985, Fax: (703) 648-7757 E-mail: jcarlin@usgs.gov



Elsie D. Isaac (Data) Telephone: (703) 648-7950 Fax: (703) 648-7975 E-mail: eisaac@usgs.gov

Internet: http://minerals.usgs.gov/minerals

### TIN IN SEPTEMBER 2004

Domestic consumption of primary tin in September was estimated by the U.S. Geological Survey to be 1% lower than that in August and 2% higher than that in September 2003. Estimated domestic consumption of primary tin in the first 9 months of 2004 rose 1% from the comparable period of 2003. The leading tin exporters to the United States in the first 8 months of 2004 were, in descending order: Peru, Malaysia, Indonesia, China, and Bolivia.

The Platts Metals Week average composite price for tin in September was \$5.77 per pound, just slightly above that in August and 69% above that in September 2003.

A new analysis of the world tin market by CRU International was guardedly bullish for tin over the coming year. Over the past 2 years, tin consumption ran well ahead of supply, as illustrated by the lowering of London Metal Exchange tin stocks from about 40,000 metric tons (t) in August 2002 to a range of 3,000-6,000 t recently. The analysis lists the top ten producers of refined tin in 2003 (85% of world total):

	Production (t)	% of World
PT Timah Tbk (Indonesia)	45,900	17
Minsur SA (Peru)	39,100	14
MSC (Malaysia/Indonesia)	37,100	14
Yunnan Tin Corp. (China)	32,000	12
Thaisarco (Thailand)	15,000	6
Gejui Zi-Li (China)	14,000	5
Liuzhou China Tin (China)	13,000	5
Datun Chengfeng (China)	12,700	5
CM Colquiri SA (Bolivia)	11,500	4
Metallo-Chimique Int'l NV (Belgium)	7,700	3

The first four companies, which produced over 30,000 metric tons per year (t/yr), stood out as considerably larger than others. However, only Minsur SA was fully integrated, and PT Timah Tbk and Malaysia Smelting Corp. (MSC) relied heavily on purchases of concentrates from small-scale producers in Indonesia. The large number of very small mines in Indonesia, China, and elsewhere define the tin business today. These small mines accounted for roughly half of world production, and will be the main source of extra output to fill the supply gap. PT Timah was considered likely to drop to third or fourth place on the list in 2004, as it has noticeably reduced its purchases from small miners and was only slowly building up production from its own offshore dredges. Minsur and Yunnan probably will increase production modestly, based on increases in their own mine production. China reportedly has increased its refined tin production in the January-August 2004 period compared with that of the comparable period of 2003, but the extra output seemed to be absorbed in its rapidly growing domestic market. In regard to the larger mines, of note was the planned imminent reopening of the Renison Tin Mine (Australia) and development of the Collingwood Project by Bluestone Tin Ltd. (Australia) (Mining Journal, 2004b).

In a proposed mega-merger, Ispat International NV (Rotterdam, Holland) announced plans to acquire International Steel Group (ISG) (Cleveland, OH). The resulting newly named Mittal Steel Co. would then become the world's leading steel producer. Both firms were important tinplate producers. Industry analysts have long thought that the world's steel industry needs to be "rationalized," made smaller through mergers that have been occurring over the past 10 years, but only on a "continental" basis (that is, within Europe, within the United States, and within Japan). ISG is currently the largest steel producer, and tinplate producer, in the United States. Ispat has large steel holdings on several continents, including the former Inland Steel Corp., based in E. Chicago, IN. This merger would be a truly global one (American Metal Market, 2004).

In Malaysia, Malaysia Smelting Corp. (MSC) signed an agreement with the liquidator of bankrupt tin miner Rahman Hydraulic Tin (RHT) to purchase its issued and paid-up share capital for \$6 million. RHT's mining area covers a large region in Klian Intan, Perak, in west Malaysia. Its mining activity currently produces about 80 metric tons per month (t/mo) of tinin-concentrates. All concentrates produced by RHT were transported to MSC's smelter in Butterworth, Penang, Malaysia, for smelting (Metal Bulletin Daily, 2004). MSC announced that it won the rights to treat tin concentrates from Bluestone's Renison Bell Tin Mine in Tasmania, Australia. MSC superceded Thaisarco (Thailand), which had previously treated Renison tin concentrates under a long-term contract with previous owner Murchison United (CRU Week in the News, 2004§<sup>1</sup>).

Peru's Minsur SA edged ahead of Indonesia's PT Timah as the world's leading tin mining company in the first 9 months of 2004. Minsur's production in January-September this year rose 2% to 30,500 t of tin-in-concentrates, while Timah's tin-inconcentrates output fell 19% to 29,900 t (CRU Week in the News, 2004§).

In China, state-owned metals-trading firm, China Minmetals Corp., announced plans to acquire China's second largest tin producer, Liuzhou China Tin Group Co. The transaction would give China Minmetals control over the mineral-rich Nandan region in southwestern China. An official involved in the transaction pointed out that Minmetals was no longer a pure trading company. Recently, it acquired mining reserves that were protected by the Government, including antimony, tin, and tungsten. Liuzhou China Tin's main producing asset is the Gaofeng Tin deposit in Nandan. The firm owns several other suspended operations in the region (Mining Journal, 2004a).

#### Update

On October 29, 2004, the Platts Metals Week composite price for tin was \$5.80 per pound.

#### **References Cited**

American Metal Market, 2004, Mittal to merge holdings, buy ISG in \$17.8	В
deal: American Metal Market, v.112, no. 43-2, October 26, p. 1, 2.	

Metal Bulletin Daily, 2004, Malaysia Smelting to buy largest domestic tin miner: Metal Bulletin Daily, no. 8863-4, October 8, p. 2.

Mining Journal, 2004a, China Minmetals set for tin acquisition: Mining Journal, October 22, p. 13.

Mining Journal, 2004b, Time for the dull metals to shine: Mining Journal, October 8, p. 20-25.

#### **Internet Reference Cited**

CRU Week in the News, 2004 (November 11), TIN, accessed November 12, 2004, via http://www.crumonitor.com.

<sup>&</sup>lt;sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

## TABLE 1 SALIENT TIN STATISTICS<sup>1</sup>

#### (Metric tons, unless otherwise noted)

			2004		
				January-	
	2003 <sup>p</sup>	August	September	September	
Production, secondary <sup>e, 2</sup>	10,800	900	900	8,100	
Consumption:					
Primary	35,200	3,190 <sup>r</sup>	3,150	28,500	
Secondary	10,800	681 <sup>r</sup>	700	6,170	
Imports for consumption, metal	37,100	4,220	NA	NA	
Exports, metal	3,690	114	NA	NA	
Stocks at end of period	6,520	6,110 <sup>r</sup>	6,040	XX	
Prices (average cents per pound): <sup>3</sup>					
Metals Week composite <sup>4</sup>	339.84	573.74	576.55	XX	
Metals Week New York dealer	218.06	437.50	435.94	XX	
London, standard grade, cash	207.00	409.00	410.00	XX	
Kuala Lumpur	209.62	403.02	405.41	XX	

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices.

 $^{2}$ Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

<sup>3</sup>Source: Platts Metals Week.

<sup>4</sup>The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

#### TABLE 2

#### METALS WEEK COMPOSITE PRICE<sup>1</sup>

#### (Cents per pound)

Period	High	Low	Average	
2003:				
September	347.80	336.59	340.70	
October	366.28	346.47	359.21	
November	373.73	356.40	364.20	
December	437.61	378.77	404.65	
Year	437.61	303.14	339.84	
2004:				
January	439.98	424.94	432.53	
February	456.45	429.49	442.15	
March	549.13	459.43	495.71	
April	596.03	561.93	575.65	
May	624.98	575.07	592.12	
June	622.44	568.24	589.38	
July	583.13	565.64	576.07	
August	590.50	563.04	573.74	
September	585.04	566.00	576.55	

<sup>1</sup>The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

#### TABLE 3

#### TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES<sup>1</sup>

	Tinplate waste			Tin per	
	(waste, strips,			metric ton	
	cobbles, etc.)	Gross	Tin	of plate	
Period	(gross weight)	weight	content	(kilograms)	Shipments <sup>2</sup>
2003 <sup>p</sup>	W	2,500,000	7,750	3.1	2,100,000
2004:					
January	W	210,000	663	3.2	167,000
February	W	200,000	615	3.1	169,000
March	2,720	186,000	558	3.0	188,000
April	W	186,000	614	3.3	168,000
May	W	189,000	613	3.2 <sup>r</sup>	148,000
June	W	182,000 r	597 <sup>r</sup>	3.2 <sup>r</sup>	188,000
July	W	193,000 r	894 <sup>r</sup>	4.7 <sup>r</sup>	174,000
August	W	185,000 r	588 <sup>r</sup>	3.0 <sup>r</sup>	168,000
September	W	181,000	586	3.0	NA

#### (Metric tons, unless otherwise noted)

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Source: American Iron and Steel Institute monthly publication.

#### TABLE 4

#### U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS<sup>1</sup>

#### (Metric tons)

	2004					
				January-		
Country or product	2003 <sup>p</sup>	July	August	August		
Imports:						
Metal (unwrought tin):	_					
Bolivia	5,720	437	236	3,530		
Brazil	3,000	548	243	2,490		
Chile	636			200		
China	4,340	984	850	3,650		
Indonesia	3,070	497	201	3,780		
Japan	136			180		
Malaysia	490	680	375	4,080		
Peru	19,100	1,620	2,210	13,100		
Switzerland	(2)			178		
Thailand			20	320		
United Kingdom	143	15	20	76		
Other	426	81	66	361		
Total	37,100	4,860	4,220	32,000		
Other (gross weight):	_					
Alloys	3,820	1,120	431	3,510		
Bars and rods	338	22	55	420		
Foil, tubes, pipes	4	(2)	(2)	3		
Plates, sheets, strip	270	49	10	354		
Waste and scrap	921	56	33	638		
Miscellaneous	2,670	293	421	1,840		
Total	8,030	1,540	950	6,760		
Exports (metal)	3,690	318	114	2,490		

<sup>p</sup>Preliminary. -- Zero.

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

<sup>2</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

## TABLE 5 CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT<sup>1</sup>

		2004						
Product		August		September			January-	
	2003 <sup>p</sup>	Primary	Secondary	Total	Primary	Secondary	Total	September
Alloys (miscellaneous) <sup>2</sup>	1,820	251	W	251	248	W	248	2,040
Babbitt	235	18	W	18	18	W	18	137
Bar tin and anodes	278	12	W	12	12	W	12	108
Bronze and brass	2,800	99 <sup>r</sup>	106 <sup>r</sup>	205 <sup>r</sup>	96	125	221	1,890
Chemicals	8,410	704	W	704	704	W	704	6,340
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	12,500	800	265	1,070	761	265	1,030	9,540
Tinning	450	41		41	42		42	355
Tinplate <sup>3</sup>	7,800	588 <sup>r</sup>		588 <sup>r</sup>	586		586	5,460
Tin powder	W	W		W	W		W	W
White metal <sup>4</sup>	W	W		W	W		W	W
Other	843	80	10 <sup>r</sup>	90 r	78	10	88	677
Total reported	35,200	2,590 <sup>r</sup>	381 <sup>r</sup>	2,970 <sup>r</sup>	2,550	400	2,950	26,500
Estimated undistributed consumption <sup>5</sup>	10,800	600	300	900	600	300	900	8,100
Grand total	46,000	3,190 <sup>r</sup>	681 <sup>r</sup>	3,870 <sup>r</sup>	3,150	700	3,850	34,600

#### (Metric tons of contained tin)

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

<sup>2</sup>Includes terne metal.

<sup>3</sup>Includes secondary pig tin and tin components of tinplating chemical solutions.

<sup>4</sup>Includes pewter, britannia metal, and jewelers' metal.

<sup>5</sup>Estimated consumption of plants reporting on an annual basis.