

Mineral Industry Surveys

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TIN IN JULY, AUGUST, AND SEPTEMBER 2009

Domestic consumption of primary tin in the third quarter of 2009 was estimated to be 5,670 metric tons (t), compared with 5,520 t in the second quarter of 2009 and 5,900 t in the third quarter of 2008. Imports of refined tin were 7,640 t in the third quarter of 2009 and 8,970 t in the third quarter of 2008. Peru, Bolivia, and Indonesia, in decreasing order, were the leading sources of tin imports in the first 9 months of 2009.

The Platts Metals Week average composite price of tin in September 2009 was \$9.05 per pound compared with \$11.21 per pound in September 2008.

A London-based metals analytical organization reported that by June 2009 world tin demand had rebounded after a weak first quarter showing, when consumption was estimated to have fallen by 29% compared with that of the comparable period of 2008. The firm believed the world tin market was oversupplied because London Metal Exchange Ltd. tin stocks had doubled since the start of 2009. The tin price rise since the beginning of 2009 was mostly because of an anticipation of a world economic recovery. The firm forecast a 12,000-t world tin surplus for 2009 (CRU International Ltd., 2009c).

Secondary or scrap production has long been an important component of the world's refined tin supply. Estimated world refined tin secondary production was about 40,000 metric tons per year (t/yr). In addition, larger volumes of tin, perhaps 90,000 t/yr, were recycled as secondary tin-lead and copper-tin alloys. An estimated 10% to 12% of world refined tin production came from secondary sources. Several companies announced the startup of new tin recycling plants in 2009.

Fenix Metals Ltd. (Tamobrzeg, Poland) started up a new 3,500-t/yr vacuum distillation unit in Poland late in 2009 and planned to make a similar investment at its sister company, Falcon Metals Ltd. (Jebel Ali, United Arab Emirates). Fenix planned to produce 1,500 t of refined scrap tin in 2009 and also was investing in additional processing technology that will allow it to treat a wider range of complex materials.

Kosaka Smelting and Refining (Kosaka, Japan), Mitsui Mining and Smelting Co., Ltd. (Tokyo) and Nippon Mining & Metals Co. Ltd. (Tokyo), announced plans (separately) to recover tin, along with copper and precious metals, from the treatment of post-consumer electronics scrap and other

materials. Nippon Mining completed the first phase of construction and partly started test operation of the Hitachi Metal Recycling Complex (HMC) (Ibaraki, Japan) project in September. The plant, located within an existing Nippon Mining copper refining and electronic components manufacturing complex in Hitachi City, has a capacity to produce 500 t/yr each of tin and nickel, as well as 200 t/yr of bismuth and 150 t/yr of antimony. HMC planned to recover the metals by leaching electronic and auto component scrap collected mainly in the Tokyo area (CRU International Ltd., 2009a).

Corporación Minera de Bolivia (La Paz, Bolivia), the state mining organization, expected to spend \$40 million to build a new mill at Empresa Minera Huanuni's (Oruro, Bolivia) mine, which would raise daily ore throughput to 3,000 metric tons per day (t/d) from 1,200 t/d. The mine produced 7,880 t of tin-in-concentrate in 2008 and was the country's leading tin mine (CRU International Ltd., 2009b).

Yunnan Tin Co. (YTC) (Kunming, Yunnan Province, China) reported promising initial results in the trial operation of a hydrometallurgical method to recover copper, tin, and tungsten from tailings. The project was conducted by Makuang Mining (a subsidiary of YTC). The trial operation started in March and involved the processing of more 10,000 t of ore with 0.2% of tin, 0.1% tungsten, and 0.6% copper, with recoveries of tin and tungsten in particular (CRU International Ltd., 2009b).

Russia's leading tin mining firm, JSC Sakhaolovo, LLC (Sakhaolovo, Russia), reportedly near bankruptcy, ceased production and laid off almost all its employees. The firm's parent company, Tsvetmet Holding, abandoned the operation. All Sakhaolovo's tin production comes from its Deputastsky deposit in the Ust-Yansky district. The only hope for Sakhaolovo's survival reportedly may be a Government bailout based on the mine's status as a national strategic resource (Marchmont News.com, 2009). The mine closure also affected Novosibirsk Integrated Tin Works (NOK) (Novosibirsk, Russia), the country's sole refined tin producer. NOK stopped receiving tin concentrate from Sakhaolovo and was unable to offset the shortage with supplies from other sources, so production in the first quarter of 2009 was significantly less than

production in the same period of 2008 (CRU International Ltd., 2009b).

Kasbah Resources Ltd. (South Perth, Western Australia, Australia) announced a rights issue to raise \$2.5 million to fund further drilling at its Achmmach tin project in Morocco. The funds will be directed towards diamond drilling of 15,000 square meters in the Meknes Zone, which was part of a plan to complete a feasibility study on the project by June 2011 (CRU International Ltd., 2009b).

A report to the U.S. Congress by the Defense Logistics Agency, Defense National Stockpile, favored a mix of strategic sourcing agreements and partnerships with foreign governments, as well as stockpiling, to ensure availability of materials for defense needs. Disposals of tin and 12 other materials from the

Government stockpile were suspended in August 2008 (CRU International Ltd., 2009b).

Update

On February 19, 2010, the Platts Metals Week composite price for tin was \$10.30 per pound.

References Cited

- CRU International Ltd., 2009a, Focus—Secondary refined tin production: CRU Tin Monitor, June, p. 7.
CRU International Ltd., 2009b, Industry news: CRU Tin Monitor, June, p. 8-10.
CRU International Ltd., 2009c, The rocky road to recovery: CRU Tin Monitor, June, p. 1.
Marchmont News.com, 2009, Russia biggest tin producer holds out a coup for help: Marchmont News.com, July 21, 3 p. (Accessed March 2, 2010, at http://www.marchmontnews.com/story.php?story_id8684.)

TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2009					
	2008 ^P	June	July	August	September	January-September
Production, secondary ^{e, 2}	11,900	994	994	994	994	8,950
Consumption:						
Primary	21,100	1,810	1,920	1,840	1,910	16,900
Secondary	10,800	711	710	712	716	6,340
Imports for consumption, metal	36,300	2,250	2,230	2,730	2,680	26,000
Exports, metal	9,800	124	166	280	192	2,200
Stocks at end of period	XX	7,570	7,630	7,590	7,540	XX
Prices (average cents per pound): ³						
Metals Week composite ⁴	1,128.97	924.85	864.70	909.91	904.70	XX
Metals Week New York dealer	864.53	704.72	657.50	698.61	706.94	XX
London, standard grade, cash	839.10	678.74	635.63	673.20	705.50	XX
Kuala Lumpur	837.70	679.87	630.92	668.72	662.29	XX

^eEstimated. ^PPreliminary. XX Not applicable.

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

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

³Source: Platts Metals Week.

⁴The 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 PRICE¹

(Cents per pound)

Period	High	Low	Average
2008	1,529.29	630.41	1,128.97
2009:			
January	748.18	688.67	711.90
February	712.54	670.97	692.57
March	698.72	647.98	668.86
April	781.18	661.48	725.34
May	874.60	785.83	849.13
June	970.28	891.14	924.85
July	909.95	780.62	864.70
August	945.24	881.50	909.91
September	925.48	872.29	904.70

¹The 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 STATES¹

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments ²
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2008	30,900	2,280,000	6,690	2.9	1,770,000
2009:					
January	1,440	118,000	562	4.8	103,000
February	1,170	86,500	523	6.0	94,400
March	1,350	96,000	547	5.7	107,000
April	372	87,900	527	6.0	122,000
May	402	78,600	479	6.1	NA
June	508	73,600	452	6.1	NA
July	1,550	98,300	511	5.2	NA
August	1,710	94,500	478	5.1	NA
September	1,730	96,200	498	5.2	NA

NA Not available.

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

²Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS¹

(Metric tons)

Country or product	2009					January- September
	2008	June	July	August	September	
Imports:						
Metal (unwrought tin):						
Bolivia	4,980	237	89	742	883	4,750
Brazil	1,570	75	--	--	--	951
China	2,380	95	110	130	61	864
Indonesia	2,000	--	120	120	235	2,500
Malaysia	1,740	--	17	14	--	121
Peru	20,900	1,690	1,790	1,700	1,420	16,200
Singapore	706	154	77	--	--	400
Thailand	1,670	--	--	--	--	15
United Kingdom	225	--	--	--	--	--
Other	152	--	26	20	76	230
Total	36,300	2,250	2,230	2,730	2,680	26,000
Other (gross weight):						
Alloys	1,720	98	88	54	101	1,000
Bars and rods	4,190	222	247	269	268	2,180
Foil, tubes, pipes	97	3	1	--	12	49
Plates, sheets, strip	1,150	1	445	1080	(2)	1,880
Waste and scrap	23,300	11,100	8,830	8,440	8,620	66,800
Miscellaneous	2,940	180	397	459	377	2,320
Total	33,400	11,600	10,000	10,300	9,380	74,200
Exports (metal)	9,800	124	166	280	192	2,200

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT¹

(Metric tons of contained tin)

Product	2008 ^p	2009												January- September
		June			July			August			September			
		Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) ²	1,800	132	W	132	132	W	132	132	W	132	132	W	132	1,310
Babbitt	459	18	W	18	20	W	20	18	W	18	19	W	19	317
Bar tin and anodes	218	16	--	16	16	--	16	16	--	16	20	--	20	148
Bronze and brass	2,250	74	88	162	131	87	218	80	89	169	87	93	180	1,550
Chemicals	2,940	242	W	242	242	W	242	242	W	242	281	W	281	2,260
Collapsible tubes and foil	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Solder	5,750	198	277	475	198	277	475	198	272	470	195	277	472	4,260
Tinning	322	28	--	28	24	--	24	26	--	26	27	--	27	233
Tinplate ³	6,690	452	--	452	511	--	511	478	--	478	498	--	498	4,580
Tin powder	227	18	W	18	18	W	18	18	W	18	18	W	18	170
White metal ⁴	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Other	389	33	47	80	28	47	75	32	51	83	28	47	75	290
Total reported	21,100	1,210	411	1,620	1,320	410	1,730	1,240	412	1,650	1,310	416	1,720	15,100
Estimated undistributed consumption ⁵	10,800	600	300	900	600	300	900	600	300	900	600	300	900	8,100
Grand total	31,900	1,810	711	2,520	1,920	710	2,630	1,840	712	2,550	1,910	716	2,620	23,200

^pPreliminary. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

²Includes terne metal.

³Includes secondary pig tin and tin components of tinplating chemical solutions.

⁴Includes pewter, britannia metal, and jewelers' metal.

⁵Estimated consumption of plants reporting on an annual basis.