

# 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 MINES FaxBack: (703) 648-4999 Internet: http://minerals.usgs.gov/minerals

# TIN IN MAY 2001

Domestic consumption of primary tin in May was estimated by the U.S. Geological Survey to be about 2% lower than that in April and 9% lower than that in May 2000.

The Platts Metals Week average composite price for tin in May was \$3.43 per pound, identical to that in April and 7% lower than that in May 2000.

Mitsui Mining and Smelting Co. (Japan) has long been a leading tin user and solder producer. Established in 1950, Mitsui Mining was originally a mining company, which later began smelting metals including copper, gold, lead, and zinc. Now, Mitsui produces solder powder and tin powder for many domestic and foreign electronics firms. Solder powder is used to make solder paste, a growing field due to increasing miniaturization in the electronics field. Currently, solder paste accounts for about 10% of the Japanese market, while the traditional solder bar and wire retain 90%. Production of mobile phones and laptop computers are two particular electronics sectors experiencing rapid growth in demand, and both require solder paste because a large number of components are mounted on their printed circuit boards. About 10 companies produce solder powder and paste in Japan. Mitsui claims to be the second largest after market leader Showa Denko Corp. Mitsui produces solder powder and tin powder at its Kamioka plant in Gifu Prefecture in central Japan. The plant has the capacity to produce over 70 metric tons of solder powder a month. About 98% of Mitsui's solder powder is produced using the centrifugal manufacturing technique. The remainder is produced using the gas atom method (Soldering and Assembly Technology, 2001).

In Thailand, the Mining Industry Council has proposed a new flat-rate royalty of 2.5%-3% on tin mined to replace the

existing eight-level royalty structure. The range of the current average royalty is 8.6-9% (Platts Metals Week, 2001b).

In Egypt, General Lithograph Egypt Co. announced that it was seeking financing to build a tinplate mill with a capacity of 100,000 metric tons per year (t/yr) near Cairo. USX Engineers and Consultants completed a feasibility study for the project in November 2000. Officials indicated that, after the project is funded, the mill could be operating within 2 years. Egypt imports 55,000 t/yr of tinplate and total tinplate imports in the Middle East average 267,000 t/yr. Demand for tinplate in Egypt is growing at 25% per year (Platts Metals Week, 2001a).

# Update

Tin traders complained about weak demand, and on June 21 the New York dealer price of tin as reported by Platts Metals Week was \$2.22 per pound, a 7½ year low. The New York dealer price is usually considerably lower than the Platts Metals Week composite price (Platts Metals Week, 2001c).

On July 6, 2001, the Platts Metals Week composite price for tin was \$3.15 per pound.

# **References Cited**

Platts Metals Week, 2001a, Financing sought for Egypt mill: Platts Metals Week, v. 72, no. 24, June 11, p. 15.

——2001b, Flat-rate royalty proposed for Thai production: Platts Metals Week, v. 72, no. 25, June 18, p. 11.

Soldering and Assembly Technology, 2001, Mitsui Mining and Smelting Co.: Soldering and Assembly Technology, no. 2, p. 3, 4.

# TABLE 1 SALIENT TIN STATISTICS 1/

### (Metric tons, unless otherwise noted)

	2000 p/	April	May	January- May
Production, secondary e/ 2/	10,800	900	900	4,500
Consumption:				
Primary	42,000	3,290	3,240	16,500
Secondary	10,700	851	908	4,350
Imports for consumption, metal	44,900	3060	NA	NA
Exports, metal	6,640	290	NA	NA
Stocks at end of period	10,400	8,270	8,640	XX
Prices (average cents per pound): 3/				
Metals Week composite 4/	370.16	342.70	342.78	XX
Metals Week New York dealer	254.92	232.67	231.83	XX
London, standard grade, cash	246.00	224.00	224.00	XX
Kuala Lumpur	244.12	222.53	222.98	XX

e/ Estimated. p/ Preliminary. NA Not available. XX Not applicable.

1/ 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.

3/ Source: Platts Metals Week.

4/ 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 1/

## (Cents per pound)

Period	High	Low	Average
2000:	-		
May	369.58	363.91	367.72
June	373.83	362.99	368.23
July	372.25	362.15	366.03
August	372.25	362.15	363.52
September	375.60	365.86	372.11
October	368.35	355.28	362.14
November	364.20	355.77	361.05
December	361.83	355.46	359.43
Year	405.27	355.46	370.16
2001:			
January	359.90	350.60	355.86
February	355.03	349.76	352.96
March	352.74	341.70	348.45
April	346.75	340.32	342.70
May	348.21	336.94	342.78

1/ 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 1/

	_	Tinplate (all forms)					
	Tinplate waste	Tin per					
	(waste, strips,	metric ton					
	cobbles, etc.)	Gross	Tin	of plate			
Period	(gross weight)	weight	content	(kilograms)	Shipments 2/		
2000 p/	W	1,720,000	8,990	5.2	2,290,000		
2000:							
December	W	107,000	646	6.0	162,000		
2001:							
January	W	W	710	7.3	179,000		
February	W	92,800	679	7.3	160,000		
March	W	102,000	663	6.5	167,000		
April	W	90,700	698	7.7	162,000		
May	W	88,900	679	7.6	NA		

## (Metric tons, unless otherwise noted)

p/Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data.

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

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

# TABLE 4 U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

## (Metric tons)

	_			January-
Country or product	2000	March	April	April
Imports:				
Metal (unwrought tin):				
Bolivia	6,330	406	484	2,070
Brazil	5,860	241	321	1,510
Chile	2,630	20		122
China	10,200	201	647	3,740
Hong Kong	397			
Indonesia	5,320	359	279	1,420
Malaysia	214		150	156
Peru	12,800	1,850	1,100	5,060
Russia	145	1		141
Singapore	20			
United Kingdom	514			107
Other	434	56	75	200
Total	44,900	3,130	3,060	14,500
Other (gross weight):				
Alloys	4,370	333	183	1,260
Bars and rods	993	70	37	241
Foil, tubes, pipes	(2/)			(2/)
Plates, sheets, strip	588	15	3	24
Waste and scrap	2,340	1,760	142	3,090
Miscellaneous	8,510	902	920	5,060
Total	16,800	3,080	1,290	9,670
Exports (metal)	6,640	524	290	2,010

-- Zero.

 $1/\operatorname{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

2/Less than 1/2 unit.

Source: U.S. Census Bureau.

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

Product		2001						
	2000 p/	April			May			January-
		Primary	Secondary	Total	Primary	Secondary	Total	May
Alloys (miscellaneous) 2/	1,430	126	W	126	126	W	126	629
Babbitt	249	29	W	29	29	W	29	159
Bar tin and anodes	294	21	W	21	20	W	20	106
Bronze and brass	2,800	84	123	207	101	147	248	1,100
Chemicals	8,180	669	W	669	668	W	668	3,340
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	16,900	903	393	1,300	850	426	1,280	6,660
Tinning	666	77 r/		77 r/	79		79	391
Tinplate 3/	9,020	698		698	679		679	3,430
Tin powder	195	W	W	W	W	W	W	W
White metal 4/	10	W	W	W	W	W	W	W
Other	2,240	84	35	119	86	35	121	498
Total reported	41,900	2,690	551	3,240	2,640	608	3,250	16,300
Estimated undistributed	_							
consumption 5/	10,800	600	300	900	600	300	900	4,500
Grand total	52,700	3,290	851	4,140	3,240	908	4,150	20,800

# (Metric tons of contained tin)

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

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

2/ Includes terne metal.

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

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

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