# 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

Linda M. White (Data)
Telephone: (703) 648-7986
Fax: (703) 648-7975
E-mail: lwhite@usgs.gov

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

## TIN IN FEBRUARY 2011

Domestic consumption of primary tin in February 2011 was estimated to be 2,250 metric tons ( t ), a slight decrease from that in January 2011 and an 11\% increase from that in February 2010. Imports for consumption of tin in February 2011 were 2,650 $t$, a decrease of $38 \%$ from that in January 2011 and the same as that in February 2010.
The Platts Metals Week average composite price of tin in February 2011 was $\$ 18.85$ per pound, compared with $\$ 16.45$ per pound in January 2011 and $\$ 10.09$ per pound in February 2010.

According to an official at Malaysia Smelting Corp. (MSC) (Kuala Lumpur, Malaysia), the current high tin prices were the result of supply-demand fundamentals rather than speculation. He noted two basic factors that have been restricting the world tin supply-current low tin ore grades and restrictions on tin mining in Indonesia (the world's leading tin exporter). MSC was the world's third leading supplier of tin in 2009, producing about 43,900 t of refined tin (Wijaya, 2011).
A team of researchers from five universities announced the development of a new high-temperature material that is $60 \%$
better at converting heat to electricity than comparable thermoelectronics. The material, which is a nanocomposite, is stable up to temperatures as high as $700^{\circ} \mathrm{C}$. It could therefore potentially be used to boost the fuel efficiency of cars by recovering energy from vehicle's exhaust heat. The material is composed of antimony, cobalt, hafnium, tin, and zirconium (Johnston, 2011).

## Update

On June 24, 2011, the Platts Metals Week composite price for tin was $\$ 15.16$ per pound.

## References Cited

Johnston, Hamish, ed., 2011, Nanoparticles boost thermoelectric efficiency: Physics World, 2 p. (Accessed January 31, 2011, at http://physicsworld.com/cws/article/news/44902.)
Wijaya, Megawati, 2011, Tin could hit $\$ 40,000$ as supply lag worsens, says MSC’s Anuar: Metal Bulletin, no. 9185, January 31, p. 6.

TABLE 1
SALIENT TIN STATISTICS ${ }^{1}$
(Metric tons, unless otherwise noted)

|  |  | 2011 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $2010^{\text {p }}$ | January | February | JanuaryFebruary |
| Production, secondary ${ }^{\text {e, } 2}$ | 11,100 | 922 | 922 | 1,840 |
| Consumption: |  |  |  |  |
| Primary | 26,900 | 2,260 | 2,250 | 4,510 |
| Secondary | 6,220 | 522 | 519 | 1,040 |
| Imports for consumption, metal | 35,300 | 4,290 | 2,650 | 6,940 |
| Exports, metal | 5,630 | 329 | 751 | 1,080 |
| Stocks at end of period | 6,920 | 6,660 | 6,540 | 6,540 |
| Prices (average cents per pound): ${ }^{3}$ |  |  |  |  |
| Metals Week composite ${ }^{4}$ | 1,239.64 | 1,644.54 | 1,885.16 | XX |
| Metals Week New York dealer | 954.13 | 1,283.44 | 1,462.50 | XX |
| London, standard grade, cash | 925.15 | 1,244.93 | 1,429.11 | XX |
| Kuala Lumpur | 922.17 | 1,260.19 | 1,436.84 | XX |

${ }^{e}$ Estimated. ${ }^{\mathrm{P}}$ Preliminary. 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 |
| :--- | :---: | :---: | :---: |
| 2010 | $1,719.49$ | 937.69 | $1,239.64$ |
| $2011:$ |  |  |  |
| January | $1,802.34$ | $1,583.57$ | $1,644.54$ |
| February | $1,937.62$ | $1,798.67$ | $1,885.16$ |

${ }^{1}$ 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 ${ }^{1}$
(Metric tons, unless otherwise noted)

| Period | Tinplate waste (waste, strips, cobbles, etc.) (gross weight) | Tinplate (all forms) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Gross weight | $\begin{gathered} \text { Tin } \\ \text { content } \end{gathered}$ | Tin per metric ton of plate (kilograms) | Shipments ${ }^{2}$ |
| 2010 | 18,200 | 1,420,000 | 6,920 | 4.9 | 2,030,000 |
| 2011: |  |  |  |  |  |
| January | 1,860 | 101,000 | 528 | 5.2 | 118,000 |
| February | 1,840 | 95,500 | 502 | 5.3 | 117,000 |

${ }^{1}$ 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)

| Country or product | 2010 | 2011 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | January | February | JanuaryFebruary |
| Imports: |  |  |  |  |
| Metal (unwrought tin): |  |  |  |  |
| Belgium | -- | 250 | 2 | 252 |
| Bolivia | 6,060 | 699 | 290 | 989 |
| Brazil | 75 | 100 | -- | 100 |
| Chile | 641 | 60 | -- | 60 |
| China | 887 | 393 | 360 | 753 |
| Indonesia | 3,970 | 255 | 268 | 523 |
| Malaysia | 4,500 | 160 | -- | 160 |
| Peru | 16,500 | 1,570 | 1,330 | 2,900 |
| Singapore | 996 | 76 | -- | 76 |
| Thailand | 1,310 | 725 | 400 | 1,130 |
| Other | 327 | -- | 1 | 1 |
| Total | 35,300 | 4,290 | 2,650 | 6,940 |
| Other (gross weight): |  |  |  |  |
| Alloys | 1,290 | 247 | 106 | 353 |
| Bars and rods | 3,190 | 211 | 254 | 465 |
| Foil, tubes, pipes | 80 | 14 | 1 | 15 |
| Plates, sheets, strip | 135 | 5 | -- | 5 |
| Waste and scrap | 57,300 | 4,970 | 4,640 | 9,600 |
| Miscellaneous | 3,540 | 148 | 201 | 349 |
| Total | 65,500 | 5,590 | 5,200 | 10,800 |
| Exports (metal) | 5,630 | 329 | 751 | 1,080 |

-- Zero.
${ }^{1}$ Data are rounded to no more than three significant digits; may not add to totals shown.
Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT ${ }^{1}$
(Metric tons of contained tin)

| Product | $2010{ }^{\text {p }}$ | 2011 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  |  | February |  |  | JanuaryFebruary |
|  |  | Primary | Secondary | Total | Primary | Secondary | Total |  |
| Alloys (miscellaneous) ${ }^{3}$ | 6,070 | 561 | W | 561 | 561 | W | 561 | 1,130 |
| Babbitt | 220 | 16 | W | 16 | 16 | W | 16 | 38 |
| Bar tin and anodes | 239 | 6 | -- | 6 | 6 | -- | 6 | 12 |
| Bronze and brass | 2,000 | 87 | 70 | 157 | 113 | 67 | 181 | 338 |
| Chemicals | 2,590 | 212 | W | 212 | 213 | W | 213 | 425 |
| Collapsible tubes and foil | W | W | W | W | W | W | W | W |
| Solder | 3,710 | 172 | 142 | 314 | 171 | 142 | 313 | 627 |
| Tinning | 331 | 33 | -- | 33 | 25 | -- | 25 | 58 |
| Tinplate ${ }^{4}$ | 6,600 | 528 | -- | 528 | 502 | -- | 502 | 1,030 |
| Tin powder | 192 | 15 | W | 15 | 15 | W | 15 | 32 |
| White metal ${ }^{5}$ | W | W | W | W | W | W | W | W |
| Other | 416 | 28 | 11 | 38 | 28 | 11 | 38 | 62 |
| Total reported | 22,400 | 1,660 | 222 | 1,880 | 1,650 | 219 | 1,870 | 3,750 |
| Estimated undistributed consumption ${ }^{6}$ | 10,800 | 600 | 300 | 900 | 600 | 300 | 900 | 1,800 |
| Grand total | 33,200 | 2,260 | 522 | 2,780 | 2,250 | 519 | 2,770 | 5,550 |

${ }^{\mathrm{p}}$ Preliminary. 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.
${ }^{2}$ May include revisions to previous month(s) data.
${ }^{3}$ Includes terne metal.
${ }^{4}$ Includes secondary pig tin and tin components of tinplating chemical solutions.
${ }^{5}$ Includes pewter, britannia metal, and jewelers' metal.
${ }^{6}$ Estimated consumption of plants reporting on an annual basis.

