



U.S. Bureau of Mines



MINERAL INDUSTRY SURVEYS

T S Ary, Director

Washington, DC 20241

For information call:

Deborah A. Kramer, Commodity Specialist (202) 501-9394

Lillian M. Wood (data) (202) 501-9479

For MINES FaxBack call: (412) 892-4088

For MINES-DATA computer bulletin board call:

(202) 501-0373 (2400, N, 8, 1) for access

(202) 501-0406 for technical assistance

Magnesium, Quarterly

MAGNESIUM IN THE THIRD QUARTER 1992

Domestic primary magnesium production in the third quarter of 1992 was 35,467 metric tons, 7% higher than that in the previous quarter according to the U.S. Bureau of Mines. Total primary production for the first three quarters of 1992 was essentially the same as that for the same period in 1991. Producers' shipments in the third quarter of 1992 were 39,538 tons, about 2% higher than those in the second quarter, and producers' inventories continued to plummet to 3,199 tons. Compared to the third quarter average daily shipments, these inventories represent 5 days of supply.

U.S. producers' quoted prices for magnesium remained at \$1.43 per pound for primary metal, and die-casting alloy AZ91D was quoted at \$1.40 to \$1.43 per pound. The U.S. transaction price for primary magnesium, as quoted by Metals Week, was \$1.28 to \$1.32 per pound at the beginning of the quarter. This remained steady until near the end of August when it began to rise; by the end of the quarter, it had risen to \$1.40 to \$1.43 per pound. The European Free Market price, also quoted in Metals Week, was \$1.22 to \$1.27 per pound at the beginning of July. This price trended downward until the end of August, then rose to reach \$1.27 to \$1.29 per pound by the end of the quarter. The Metal Bulletin free market price for primary magnesium was \$1.25 to \$1.28 per pound at the beginning of the quarter, dropped until the middle of September, and then rose slightly to \$1.27 to \$1.29 per pound at the end of September.

Magnesium imports through August were 64% below those in the same period of 1991. Exports of magnesium through August 1992 were 6% less than those through the third quarter of 1991.

On October 13, the Department of Commerce an-

nounced a preliminary decision concerning Canadian provincial government subsidies of Norsk Hydro Canada Inc.'s electric power contract for its Becancour, Quebec, primary magnesium plant. According to Commerce, the amended power contract between Norsk Hydro and Hydro Quebec, the power supplier, which was approved on August 5 and made retroactive effective to January 1, no longer conferred a subsidy. If this preliminary determination is finalized, the countervailing duty for pure and alloy magnesium would drop from 21.61% *ad valorem* to 7.61% *ad valorem*; the electricity subsidy was estimated by Commerce to account for 14% of the additional duty. Antidumping duties, which were levied on pure magnesium only, would not be affected. A final decision is expected on November 9.

In an effort to eliminate all countervailing and antidumping duties, Norsk Hydro filed a request for review with the United States Section of the Binational Secretariat of the United States-Canada Free Trade Agreement on September 25. When a request for review is made, a panel is formed to review the final determination and to determine whether it conforms to the antidumping or countervailing duty laws in the country that imposed the duty.

After resolving some furnace problems, Northwest Alloys Inc. reported that its primary magnesium plant in Addy, WA, was operating five out of nine furnaces at the end of August. After its announced cutback in December 1991, Northwest Alloys was operating only three furnaces because of the problems. The company planned to increase capacity while operating the same number of furnaces to satisfy some of Alcoa's magnesium requirements that had been met by Norsk Hydro.

Prepared by the Branch of Industrial Minerals and Branch of Data C



James Boyd
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Pechiney announced that it would shut down its 18,000-ton-per-year magnesium plant in Marignac, France, during January and February 1993. Because of energy costs, which are highest during these 2 months, Pechiney may decide to continue this practice during the next few years. Shutdown of this facility, even for a short period, could exacerbate already tight magnesium supplies.

Automobile manufacturers continue to specify magnesium in some of their new models. Ford Motor Co. began using magnesium in some radio components in the 1993 models of cars built in North America and overseas; this is part of a program that is expected to consume about 500 tons of magnesium annually. Ford's new radio applications involve two-piece amplifier hous-

ings. The magnesium will be purchased in North America, and in addition to being used in North American plants, it will be used in vehicles manufactured in Portugal and perhaps in Brazil. In addition, Chrysler Corp. announced that it would use die-cast magnesium steering column support brackets in the 1994 models of its standard-size T300 pickup trucks. This application could consume up to 250 tons of magnesium annually. Although Ford's electric vehicle is still a concept vehicle, the company planned to use magnesium in some components, including the transmission housings; magnesium, along with aluminum and plastic components, were expected to minimize the effect of its heavy battery pack on performance.

Table 1. — U.S. imports for consumption and exports of magnesium

	(Metric tons)					
	1991 final	1992				
		Jan.-May	June	July	Aug.	Jan.-Aug. ¹
Imports:						
Metallic and scrap	25,908	1,413	109	195	183	1,900
Alloys (magnesium content)	4,596	737	335	200	1,674	2,946
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	1,359	436	201	108	58	803
Total	31,863	2,586	645	503	1,915	5,649
Exports:						
Metallic and scrap	43,778	17,944	3,936	2,921	2,635	27,436
Alloys (gross weight)	3,233	1,089	17	62	86	1,254
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	8,149	7,069	651	732	576	9,028
Total	55,160	26,102	4,604	3,715	3,297	26,101

¹Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census

Figure 1.—U.S. primary magnesium production, shipments, and inventories

