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Mineral Industry Surveys

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MAGNESIUM IN THE FOURTH QUARTER 2008

Total exports of magnesium in 2008 were about 3% less than those in 2007. Canada (47%), Mexico (20%), and Singapore (12%) were the principal destinations. Magnesium alloys represented nearly one-half of total exports.

Magnesium imports for consumption in 2008 were about 16% higher than those in 2007. Magnesium metal imports increased by 63% compared with those in 2007, and alloy imports were 41% lower. The increase in metal imports was mainly a result of increased imports from China; this was presumably imports from Tianjin Magnesium International Co. Ltd., the only firm that has an antidumping duty of 0% ad valorem. A significant quantity of magnesium was imported from China into the United States right before the U.S. Government's decision on antidumping duties was scheduled to be announced. Magnesium alloy imports fell in 2008 because of a decline in imports from Canada. With the closure of magnesium production capacity in Canada, and reduced demand by the automotive industry for magnesium diecastings, alloy demand fell as well. Israel (49%) and China (43%) were the principal sources of imported magnesium metal. Israel (30%) and Canada (23%) were the principal sources of imported alloys.

Quoted magnesium prices are shown in the table at the bottom of the page. After the rapid increase in prices during the first half of 2008, worldwide prices fell in the fourth quarter in response to the weak global economy and weak magnesium demand. Because of the tight import market in the United States, domestic prices did not decline as significantly.

The U.S. Department of Commerce, International Trade Administration (ITA) (2008), published the final results of its administrative review of antidumping duties for pure magnesium imported into the United States from China. Final dumping margins for the May 1, 2006, through April 30, 2007, period of review were 0.63% ad valorem for Tianjin Magnesium, 111.73% ad valorem for Shanxi Datuhe Coke & Chemicals Co. Ltd., and 108.26% ad valorem for the China-wide rate.

U.S. Magnesium LLC (Salt Lake City, UT) announced that it would reduce production and delay expansion at its 52,000-metric-ton-per-year (t/yr) primary magnesium plant in Rowley, UT. The company cited weak demand as the reason for the announcement. U.S. Magnesium had planned on increasing production capacity to 70,000 t/yr by 2010, but this will be delayed until demand improves (McBeth and de Klerk, 2009).

On January 30, Contech, LLC (Portage, MI) filed a petition under Chapter 11 of the U.S. Bankruptcy Code to restructure its business. The company, which produced aluminum and magnesium diecastings for the auto industry, cited unprecedented low volumes in the auto industry as the reason for the filing. The company has plants in Michigan, Indiana, Tennessee and the United Kingdom, but only the U.S. operations were affected by the Chapter 11 filing (Contech, LLC, 2009). In addition, one of the leading aluminum sheet producers, Aleris International Inc. (Beachwood, OH), filed for Chapter 11 bankruptcy protection in mid-February citing a decrease in demand from the auto industry as the principal reason for the filing. Only the company's U.S. operations were

	Units	Beginning of quarter	End of quarter
Platts Metals Week U.S. spot Western	Dollars per pound	$3.40-$3.65	$3.05-$3.25
Platts Metals Week U.S. spot dealer import	do.	3.40-3.65	3.00-3.25
Platts Metals Week European free market	Dollars per metric ton	4,200-4,400	2,900-3,000
Platts Metals Week China	do.	3,950-4,000	2,900-3,000
Metal Bulletin European free market	do.	4,400-4,500	2,800-2,900
Metal Bulletin China free market	do.	4,000-4,050	2,800

affected by the filing. Aleris was a leading consumer of magnesium in its rolling and recycling operations, and companies such as U.S. Magnesium, Dead Sea Magnesium Ltd., and Advanced Magnesium Alloys Corp. were among the company's creditors (McBeth, 2009a).

In addition to the bankruptcy filings, aluminum and magnesium diecaster Spartan Light Metal Products Inc. (Sparta, IL) announced that it would cut production and lay off employees in response to a 30% decrease in diecasting orders for the first quarter of 2009. Other magnesium diecasters reported that they would extend plant shutdowns into January, and many had enough inventory to supply plant requirements from 8 weeks to 6 months (McBeth, 2009b).

Timminco Ltd. (Toronto, Ontario, Canada) announced that it would enter into a nonbinding letter of intent with Winca Tech Ltd., a leading China-based producer of magnesium products, to merge the principal components of Timminco's magnesium and specialty metals business, including its manufacturing facility in Nuevo Laredo, Mexico, with all of Winca's magnesium operations. Timminco expected to retain a minority equity interest in the combined business, which will be known as Applied Magnesium International (AMI). Timminco also announced that it would begin winding down production operations at its existing magnesium extrusion facility in Aurora, CO, and close this facility later in 2009. This facility employs 52 people. Some of the existing staff and management were expected to be transferred to AMI, along with certain assets and technology (Timminco Ltd., 2009).

In December, Volkswagen AG (VW) (Wolfsburg, Germany) announced that it would return its 35% ownership in the Dead Sea Magnesium plant to its majority owner, Israel Chemicals Ltd. (ICL) (Tel Aviv, Israel). The Dead Sea Magnesium joint venture, established in 1995, operates a 35,000-t/yr plant where magnesium is recovered from brines from the Dead Sea. Although the joint venture has lost money since it began operation and was reported to have a debt of more that $100 million, VW reportedly viewed itself as no longer responsible for this debt. As a result, ICL planned to take legal action against VW (Sandler, 2008).

According to the China Nonferrous Metals Industry Association, China produced 631,000 metric tons (t) of magnesium in 2008, slightly higher than that in 2007. The distribution of production among the Provinces and regions was as follows: Shanxi Province, 326,000 t; Shaanxi Province, 86,200 t; Ningxia Autonomous Region, 68,200 t; Inner Mongolia Autonomous Region, 8,700 t,; and Jilin Province, 1,900 t (China Magnesium Industry & Market Bulletin, 2009c). China Magnesium Association, however, reported that primary magnesium production was 558,000 t, 15% less than production in 2007, and China's consumption was 158,000 t, 40% less than consumption in 2007 (China Magnesium Industry & Market Bulletin, 2009a). Also, according to China Magnesium Association, in 2008, 18 magnesium plants that use direct coal combustion as fuel source were forced to close because their energy consumption and pollution were extremely high. There were 66 magnesium smelters within China, with a total production capacity of 1,160,000 t/yr, which was 19% higher than 2007 capacity (China Magnesium Industry & Market Bulletin, 2009b).

In January 2009, Taiyuan Tongxiang Magnesium Co. Ltd. (Shanxi, China) reportedly cut its production to 3,000 metric tons per month (t/mo) from the 10,000-t/mo rate at which it was producing in 2008. The company said that only 5 of its 25 magnesium plants were in operation. Persistent weakness in demand in China's automotive sector and a forecast for this weakness to continue was the principal reason for the shutdown. Taiyuan Tongxiang's total magnesium production capacity was 100,000 t/yr (Metal Pages, 2009). Other magnesium producers in China also reported that they would cut production and delay expansions until the market improves.

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TABLE 1

U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM[1]

(Metric tons)

		2008				
	2007	January-September	October	November	December	January-December
Imports:						
Metal	27,200	34,900	3,490	2,800	3,080	44,300
Waste and scrap	21,200	18,400	2,480	1,880	1,340	24,100
Alloys (magnesium content)	21,900	9,400	1,710	762	1,080	13,000
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	1,490	1,830	39	8	94	1,970
Total	71,800	64,500	7,720	5,440	5,590	83,300
Exports:						
Metal	4,290	2,260	255	389	198	3,100
Waste and scrap	1,800	1,910	437	153	98	2,600
Alloys (gross weight)	7,570	4,950	542	551	713	6,760
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	1,170	1,480	187	209	76	1,950
Total	14,800	10,600	1,420	1,300	1,090	14,400

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

Source: U.S. Census Bureau.