

Mineral Industry Surveys

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MAGNESIUM IN THE THIRD QUARTER 2009

Magnesium exports through September 2009 were 21% higher than exports in the same period of 2008. Magnesium imports for consumption through September 2009 were about 44% less than those through September 2008. Israel (68%) and China (28%) were the principal sources of imported magnesium metal. Israel (19%), Canada (16%), and Mexico (12%) were the principal sources of imported alloys.

Quoted magnesium prices are shown in the table at the bottom of the page. In general, Chinese and European prices inched higher, and U.S. prices fell slightly. In November, contract negotiations for 2010 began in Europe and the United States as large aluminum companies solicited offers. Press reports indicated that offers began at \$2.20 to \$2.45 per pound, but negotiations were expected to result in prices of \$2.15 per pound. Some aluminum consumers were still working off accumulated inventory of magnesium and were waiting to begin price negotiations for 2010 until inventory levels had been reduced (McBeth, 2009).

The United States was seeking a formal World Trade Organization (WTO) panel on a complaint filed June 23 alleging that China improperly restricts exports of materials to help its own manufacturers. The United States and the 27-nation European Union filed the initial complaint at the WTO on June 23, and Mexico joined the complaint on August 21. According to the complaint, China imposes quotas on exports of some materials and imposes export duties on several raw materials. The materials included in the complaint were bauxite, coke, fluorspar, magnesium, manganese, silicon metal, silicon carbide,

yellow phosphorus, and zinc (Agence France-Presse, 2009).

After an investigation begun in late 2008, the U.S. Environmental Protection Agency (EPA) added U.S. Magnesium LLC's Tooele County, UT, operations to the National Priorities List of Superfund sites. This designation makes cleanup of the site a high priority nationally. The designated site encompasses 1,830 hectares (4,530 acres) on the southwest edge of the Great Salt Lake, 64 kilometers (40 miles) from Salt Lake City, UT. Contaminants at the site include acidic wastewater, dioxins, furans, heavy metals, hexachlorobenzene, polychlorinated biphenyls, and polycyclic aromatic hydrocarbons. U.S. Magnesium planned to challenge the designation (Jennemann, 2009; U.S. Environmental Protection Agency, 2009).

In a separate but related lawsuit, U.S. Magnesium and the EPA were in U.S. Court of Appeals on November 18 as a result of a suit brought by the EPA in 2001 that alleged U.S. Magnesium violated the Resource Conservation and Recovery Act. The EPA alleged that dioxins and other cancer-causing agents that are byproducts of the magnesium extraction process are a threat to workers, wildlife, and public health. U.S. Magnesium claimed that Congress excluded the company from the law and that the EPA was retroactively applying new guidelines. In a 2007 ruling, a U.S. District Court judge had sided with U.S. Magnesium, and the EPA had appealed the decision (Coffman, 2009).

Aluminum and magnesium diecaster Intermet Corp. began selling its assets as a result of its Chapter 11 bankruptcy filing in

	Units	Beginning of quarter	End of quarter
Platts Metals Week U.S. spot Western	Dollars per pound	\$2.35-\$2.55	\$2.30-\$2.50
Platts Metals Week U.S. spot dealer import	do.	2.20-2.50	2.20-2.50
Platts Metals Week European free market	Dollars per metric ton	2,550-2,650	2,600-2,700
Platts Metals Week China	do.	2,520-2,570	2,570-2,620
Metal Bulletin European free market	do.	2,600-2,700	2,700-2,800
Metal Bulletin China free market	do.	2,470-2,540	2,650-2,700

August 2008. The company had closed some of its plants in 2008, including its Pulaski, TN, plant, where it manufactured aluminum and magnesium automotive diecastings. Continental Casting LLC (Perry, MO) purchased two plants from Internet—one in Monroe City, MO, that produced aluminum and zinc castings and one in Palmyra, MO, that produced aluminum and magnesium castings. Continental Casting planned to continue to operate the facilities and retain the plant employees (McBeth and Gilcrest, 2009).

In November, Xstrata plc (Zug, Switzerland) began demolishing the 63,000-metric-ton-per-year (t/yr) Magnola magnesium plant in Asbestos, Quebec, Canada. The plant had been constructed in 2000 by the former Noranda Inc. to recover magnesium from asbestos tailings but was closed in 2003 because magnesium produced there could not compete with lower priced magnesium from China in the world market. Norsk Hydro ASA's (Oslo, Norway) 48,000-t/yr magnesium plant in Becancour, Quebec, had been demolished earlier in 2009 (McDougall, 2009).

China Direct Industries, Inc. entered into a letter of intent with Taiyuan Yiwei Magnesium Group Ltd. to acquire the minority interest in the Taiyuan Changxin Magnesium Co. Ltd., Shanxi Gu County Golden Magnesium Co. Ltd., and Baotou Xinjin Magnesium Industry Co. Ltd. subsidiaries from Yiwei Magnesium. In addition, the company was seeking to acquire up to five additional magnesium facilities from Yiwei Magnesium. These five facilities have a combined production capacity of 40,000 t/yr of pure magnesium ingot, 10,000 t/yr of magnesium powder, and 10,000 t/yr of magnesium alloy. China Direct also planned to sell its interest in Pan Asia Magnesium Co. Ltd. (China Direct Industries, Inc., 2009) In September, the company withdrew its request for a new shipper review for Pan Asia antidumping duty assessments because of the impending sale (U.S. Department of Commerce, International Trade Administration, 2009).

In October, Norway-based SilMag D.A. began testing at a pilot plant in Porsgrunn, Norway, to recover magnesium chloride from olivine. Testing was expected to continue through May 2010, but the company would not commercialize the process until a user is found for the silica that is generated in the process (Metals Place, 2009).

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TABLE 1
U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM¹

(Metric tons)

	2009					
	2008	January- June	July	August	September	January- September
Imports:						
Metal	44,300	12,500	1,560	2,280	1,480	17,800
Waste and scrap	24,100	9,960	1,540	1,950	1,270	14,700
Alloys (magnesium content)	13,000	2,310	344	242	369	3,270
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	1,970	81	22	1	6	110
Total	83,300	24,800	3,470	4,470	3,130	35,900
Exports:						
Metal	3,100	1,810	366	626	695	3,500
Waste and scrap	2,600	1,350	360	162	65	1,940
Alloys (gross weight)	6,760	3,960	340	383	1,170	5,850
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	1,950	1,130	169	129	156	1,590
Total	14,400	8,250	1,240	1,300	2,080	12,900

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

Source: U.S. Census Bureau.