

## GYPSUM

(Data in thousand metric tons, unless otherwise noted)

**Domestic Production and Use:** In 1997, output of crude gypsum was 17 million tons valued at \$120 million. Leading producer States were Oklahoma, Texas, Iowa, Michigan, Nevada, California, and Indiana, which together accounted for 73% of total output. Overall, 30 companies mined crude gypsum at 61 mines in 20 States, and 10 companies calcined gypsum at 67 plants in 28 States. More than two-thirds of domestic consumption, which totaled about 26 million tons, was accounted for by manufacturers of wallboard and plaster products. About 5 million tons for cement production, 2 million tons for agricultural applications, and small amounts of high-purity gypsum for a wide range of industrial processes, such as smelting and glassmaking, accounted for remaining uses. Capacity at operating wallboard plants in the United States was 26 billion square feet per year while sales were 23.5 billion square feet, representing a capacity utilization of 90%.

<b>Salient Statistics—United States:</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997<sup>e</sup></b>
Production: Crude	15,800	17,200	16,600	17,500	17,000
Byproduct <sup>1</sup>	800	900	1,200	1,300	1,400
Calcined	15,200	16,700	16,700	18,800	18,000
Wallboard products (million square feet)	23,200	22,500	24,000	23,700	23,500
Imports, crude, including anhydrite	7,390	8,470	8,160	8,050	8,100
Exports, crude, not ground or calcined	69	89	79	136	200
Consumption, crude, apparent <sup>2</sup>	24,000	26,300	26,400	26,500	26,300
Price: Average crude, f.o.b. mine, dollars per ton	6.74	6.70	7.29	7.10	7.10
Average calcined, f.o.b. plant, dollars per ton	17.88	17.23	17.37	20.30	20.30
Stocks, producer, crude, yearend	2,320	2,600	2,100	2,300	2,300
Employment, mine and calcining plant, number <sup>e</sup>	6,700	6,700	6,500	6,300	6,000
Net import reliance <sup>3</sup> as a percent of apparent consumption	31	31	32	29	30

**Recycling:** A relatively small amount of gypsum wallboard is recycled.

**Import Sources (1993-96):** Canada, 69%; Mexico, 23%; Spain, 5%; and other, 3%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Most favored nation (MFN) 12/31/97</b>	<b>Non-MFN<sup>4</sup> 12/31/97</b>
	Gypsum; anhydrite	2520.10.0000	Free	Free.

**Depletion Allowance:** 14% (Domestic), 14% (Foreign).

**Government Stockpile:** None.

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**Events, Trends, and Issues:** A small decline in residential construction during the year reduced demand in some markets. However, forecasts indicate that overall gypsum demand in North American markets will rise by about 2% annually for the next few years. This demand will be driven primarily by the construction industry, particularly in the United States where more than 90% of the gypsum consumed is used for wallboard products, building plasters, and the manufacture of portland cement. Several large wallboard plants under construction and designed to use only byproduct gypsum will accelerate substitution they become operational.

### World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves <sup>5</sup>	Reserve base <sup>5</sup>
	1996	1997 <sup>e</sup>		
United States	17,500	17,000	700,000	Large
Australia	2,000	2,000		
Canada	8,330	8,300	450,000	Large
China	8,000	9,000		
Egypt	1,200	1,200		
France	5,000	5,000		
India	1,700	1,700		
Iran	8,300	8,300		
Italy	1,200	1,200		
Japan	5,350	5,300		
Mexico	5,260	5,300		
Poland	1,100	1,100		
Spain	8,000	8,000		
Thailand	8,900	8,600		
United Kingdom	2,000	2,000		
Other countries	<u>15,900</u>	<u>16,000</u>		
World total (rounded)	99,700	100,000	Large	Large

Reserves and reserve base are large in major producing countries, but data are not available.

**World Resources:** Domestic resources are adequate, but are unevenly distributed. There are no significant gypsum deposits on the eastern seaboard of the United States, where large imports from Canada augment domestic supplies for wallboard manufacturing in large metropolitan markets. Large deposits occur in the Great Lakes region, midcontinent region, and California. Foreign resources are adequate, but are not evenly distributed.

**Substitutes:** Other construction materials may be substituted for gypsum, especially cement, lime, lumber, masonry, and steel. There is no practical substitute for gypsum in portland cement. Byproduct gypsum generated by various industrial processes is becoming more important as a substitute in wallboard manufacturing, cement production, and agricultural applications.

<sup>e</sup>Estimated.

<sup>1</sup>Estimated byproduct used for wallboard.

<sup>2</sup>Defined as crude + byproduct + net import reliance.

<sup>3</sup>Defined as imports - exports + adjustments for industry stock changes.

<sup>4</sup>See Appendix B.

<sup>5</sup>See Appendix D for definitions.