

GYPSUM

By Ronald F. Balazik

The United States in 1995 continued to lead the world in gypsum production and in per capita consumption of gypsum wallboard. Also during the year, the holdings of several U.S. gypsum producers changed significantly as acquisitions further consolidated the industry. For example, Georgia Pacific Corp. purchased the gypsum operations of the Canadian company, Domtar Inc. The sale included Domtar facilities in both the United States and Canada. In addition, National Gypsum Co. was purchased by Delcore, Inc., a subsidiary of Golden Eagle Industries, Inc. By yearend, negotiations were underway for the merger of Standard Gypsum Corp. and Temple-Inland Forests Products Corp.

Data on the domestic gypsum industry are developed by the U.S. Geological Survey (USGS) from monthly, quarterly, and annual surveys of gypsum operations and from data provided by the Gypsum Association. The 1995 USGS survey, which canvassed 115 gypsum operations, had a response rate of 96%, accounting for virtually all of domestic production. The output of producers that did not respond to the survey was estimated from annual canvasses of previous years and from other sources.

Production

Although domestic output of crude gypsum declined slightly in 1995, the United States continued to be the world's leading gypsum producer. Domestic production of crude gypsum reached 16.6 million tons, valued at \$121 million, accounting for 17% of global output. (See tables 1 and 8.)

Crude gypsum was mined domestically by 30 companies at 57 mines in 19 States. The top producing States, in descending order, were Oklahoma, Iowa, Texas, Nevada, Michigan, California, and Indiana. These 7 States, with 37 mines, produced more than 1 million tons each and together accounted for 70% of total domestic output. (See table 2.)

Leading producers were U.S. Gypsum Co., 11 mines; Georgia-Pacific Corp., 9 mines; National Gypsum Co., 7 mines; and Harrison Gypsum Inc., 3 mines. These 4 companies produced almost two-thirds of total U.S. crude gypsum.

The 10 largest gypsum mines in the United States accounted for 41% of domestic output in 1995. These mines, owned by 6 companies, had an average output of 682,000 tons.

Gypsum was calcined (partially dehydrated) by 12 companies at 69 plants in 28 States, principally for the manufacture of gypsum wallboard and plaster. Both the tonnage and value of calcined output was about the same as in 1994. Leading States, in descending order, were California, Iowa, Texas, Florida, Nevada, and New York. These 6 States, with 26 plants, accounted for 43% of national output. (See table 3.)

Companies with the most calcining plants were U.S. Gypsum

Co., 20 plants; National Gypsum, 18 plants; Georgia-Pacific, 17 plants; and Celotex Corp., 4 plants. These 4 companies produced more than 80% of national output.

The largest 10 calcining plants in the United States accounted for almost one-third of domestic production in 1995. These plants, owned by 5 companies, had an average output of 487,000 tons.

Yearend stocks of crude gypsum at mines and calcining plants totaled 2.1 million tons. At yearend 1994, stocks were 2.6 million tons.

Several U.S. companies manufacture gypsum wallboard products and plaster from gypsum that they mine or purchase. According to the Gypsum Association in the United States, annual production capacity at domestic plants that manufactured gypsum wallboard products increased slightly in 1995 to a total of 25.1 billion square feet (2.33 billion square meters). Surveys by the USGS indicate that total wallboard shipments were 22.5 billion square feet (2.09 billion square meters), or 90% of production capacity. (See table 5.) During 1995, the ownership of several U.S. wallboard manufacturing operations changed and an idled wallboard plant was reopened.

Consumption

Apparent U.S. consumption of crude gypsum (defined as mine output plus net imports, industry stock changes, and byproduct production) was 26.4 million tons in 1995. Domestic sources (mining plus 1.2 million tons of byproduct gypsum) met 68% of domestic consumption requirements; remaining needs were satisfied with imports.

Gypsum products are categorized as either "calcined" (i.e., the combined water is removed by heating) or "uncalcined." About 20 million tons of the gypsum was calcined for use in wallboard and plaster products during 1995, accounting for 74% of total gypsum use in the United States. Uncalcined gypsum used in portland cement manufacture, agriculture, and fillers accounted for the remaining consumption. (See table 4.)

Most calcined gypsum is used to manufacture prefabricated wallboard products; a small amount was used in industrial and building plasters. Measures based on the surface area of wallboard products indicate that regular wallboard and fire-resistant type X wallboard accounted for 86% of gypsum prefabricated products sold in the United States during 1995. Mobile home board, water/moisture-resistant board, lath, veneer base, and sheathing comprised most of the balance. In descending order, the leading sales areas for the prefabricated products were the South Atlantic, East North Central, Pacific, and West South Central regions of the United States. (See table 5.)

More than two-thirds of the uncalcined gypsum consumed in the United States during 1995 was used in portland cement while the remainder was used primarily for agricultural purposes. The cement industry uses gypsum to retard the setting time of mortar and concrete. Finely ground gypsum rock is used in agriculture to neutralize alkaline and saline soils, improve the permeability of argillaceous materials, and provide sulfur and catalytic support for maximum fertilizer utilization and leguminous productivity. Small amounts of very pure gypsum also are used as fillers and in glassmaking, papermaking, and pharmaceutical applications.

In addition to mined gypsum, more than 1.2 million tons of byproduct gypsum generated by various industrial processes was consumed in 1995. Byproduct gypsum is used principally in agriculture but some is used for gypsum wallboard manufacturing. Consumption in 1995, valued at \$5.1 million, was 26% greater than in 1994.

Prices

The average of the values per ton (f.o.b. mine or plant) reported by producers for 1995 increased slightly to \$7.29 for crude gypsum, increased slightly to \$17.36 for calcined gypsum, and decreased slightly to \$4.20 for byproduct gypsum. The average of per-ton values reported for prefabricated products, plasters, and uncalcined products were \$104, \$110, and \$13, respectively. Delivered prices for uncalcined gypsum to agricultural markets and cement plants reportedly exceeded \$40 per ton in some cases, depending on transport mode and distance.

Spot prices for gypsum wallboard products in December 1995, based on truckloads delivered, showed a wide range. Regular 1/2-inch wallboard prices ranged from \$93 per thousand square feet (928 square meters) at Cincinnati to \$190 at Detroit. The average price in December for 20 U.S. cities was \$151 per thousand square feet. This represented a slight increase compared with that of December 1994.¹

Foreign Trade

In 1995, the United States imported crude gypsum from at least 11 countries and exported crude gypsum to more than 20 countries. Imports for consumption of crude gypsum decreased 4% to 8.2 million tons. Net imports represented 32% of apparent consumption.

Crude gypsum from Canada and Mexico was used mainly to supply wallboard plants in coastal markets. Imports from Spain, the other major source of imported gypsum, reportedly were used principally for portland cement manufacture. (See tables 6 and 7.)

Wallboard exports totaling about 77 million square feet (7.14 million square meters) were shipped to at least 36 countries; imports were about 670 million square feet (62.10 million square meters) from 13 countries, principally Canada. Foreign subsidiaries of some domestic wallboard producers produce much of the crude gypsum that was imported to supply U.S. coastal wallboard plants.

World Review

In addition to the United States, more than 90 countries are known to produce gypsum worldwide. Estimated world production in 1995 was 98.1 million tons. However, this estimate may be low because, in some countries, significant production is used by producers in their other products and not reported. Also, production from small deposits in developing countries is intermittent and often unreported. (See table 8.)

Due to the wide global distribution of gypsum resources, most world production is consumed domestically by the producing nations. Notable exceptions include Canada and Mexico, which export significant portions of their output to the United States. As in the United States, industrialized nations use gypsum primarily for wallboard products. However, in developing countries (particularly those of Asia) most gypsum is utilized by cement plants.

Global production capacity for gypsum wallboard in 1995 reportedly reached 54 billion square feet (5 billion square meters) at 240 plants worldwide. Most capacity is estimated to be in the United States (45%), Western Europe (20%), and Asia (20%).

Outlook

Forecasts indicate that gypsum demand in North American markets will rise by approximately 3% per annum through the remaining 1990's.² This demand will be driven primarily by the construction industry, particularly in the United States where more than 90% of the gypsum currently consumed is used for gypsum wallboard products, building plasters, and the manufacture of portland cement.

Utilization of byproduct gypsum from industrial processes and electric utility flue gas wastes will remain low. More favorable economic circumstances that support byproduct gypsum as a replacement for natural gypsum (e.g., rising ore costs) are necessary to encourage further substitution.

¹ENR Materials Prices, Engineering News Record, v. 235, No. 25; Dec. 18, 1995, p. 45.

²Gypsum Products in North America, Study No. 709, The Fredonia Group, Inc., July 1995.

OTHER SOURCES OF INFORMATION

U.S. Geological Survey Publications

Gypsum. Chapter in Mineral Commodity Summaries, annual.

Gypsum. Mineral Industry Surveys, monthly.

U.S. Geological Survey Professional Paper 820, pp. 197-216.

Other Sources

Gypsum. Chapter in U.S. Bureau of Mines Bulletin 675, Mineral Facts and Problems, 1985 edition.

Gypsum. Chapter in U.S. Bureau of Mines Minerals Yearbook. The International Journal for Gypsum, Lime & Building Products.

TABLE 1
SALIENT GYPSUM STATISTICS 1/

(Thousand metric tons and thousand dollars)

	1991	1992	1993	1994	1995
United States:					
Active mines and plants 2/	112	109	112	108	115
Crude:					
Mined	14,000	14,800	15,800	17,200	16,600
Value	\$94,200	\$101,000	\$107,000	\$115,000	\$121,000
Imports for consumption	6,930	7,180	7,390	8,470	8,160
Byproduct gypsum sales	618	630	846	950	1,220
Calcined:					
Produced	13,900	15,100	15,200	16,700	16,700
Value	\$241,000	\$250,000	\$272,000	\$288,000 r/	\$290,000
Products sold (value)	\$1,350,000 3/	\$1,350,000 3/	\$1,780,000 3/	\$2,630,000	\$2,120,000
Exports (value)	\$85,600	\$97,000	\$77,600	\$73,400	\$75,100
Imports for consumption (value)	\$88,100	\$96,000	\$111,000	\$141,000	\$166,000
World: Production	100,000	99,200 r/	96,900 r/	99,500 r/	98,100 e/

e/ Estimated. r/ Revised.

1/ Data are rounded to three significant digits.

2/ Each mine, calcining plant, or combination mine and plant is counted as one establishment; includes plants that sold byproduct gypsum.

3/ Does not include value of plasters sold.

TABLE 2
CRUDE GYPSUM MINED IN THE UNITED STATES, BY STATE OR REGION 1/

State	1994			1995		
	Active mines	Quantity (thousand metric tons)	Value (thousands)	Active mines	Quantity (thousand metric tons)	Value (thousands)
Arizona and New Mexico	6	997	\$7,540	5	880	\$6,330
Arkansas, Kansas, Louisiana	5	1,550	11,800	5	1,490	11,400
California, Nevada, Utah	12	3,080	16,600	12	3,000	16,600
Colorado, South Dakota, Wyoming	5	737	5,260	5	756	5,380
Indiana, New York, Ohio, Virginia	5	2,020	18,600	5	2,000	19,300
Iowa	6	2,210	12,700	6	2,240	13,800
Michigan	5	1,790	15,300	5	1,510	14,900
Oklahoma	9	2,890	17,000	8	2,830	17,000
Texas	6	1,870	10,100	6	1,880	16,200
Total	59	17,200	115,000	57	16,600	121,000

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 3
CALCINED GYPSUM PRODUCED IN THE UNITED STATES, BY STATE OR REGION 1/

State	1994			1995		
	Active plants	Quantity (thousand metric tons)	Value (thousands)	Active plants	Quantity (thousand metric tons)	Value (thousands)
Arizona, Colorado, New Mexico, Utah	5	1,050	\$8,270	5	1,040	\$8,400
Arkansas, Louisiana, Oklahoma	7	1,910	27,700	7	1,990	24,100
California	5	1,420	23,800	5	1,360	23,400
Delaware, Maryland, North Carolina, Virginia	6	1,510	32,700	6	1,320	33,300
Florida	3	1,210	29,400	3	1,180	28,000
Georgia	3	513	8,780	3	506	8,860
Illinois, Indiana, Kansas	6	1,380	23,300	6	1,400	23,500
Iowa	5	1,520	23,500	5	1,470	22,400
Massachusetts, New Hampshire, New Jersey	5	997	21,400	5	1,100	23,500
Michigan	4	598	13,500	4	601	13,400
Nevada	4	1,190	15,100	4	1,180	13,600
New York	4	998	17,600	4	1,020	22,000
Ohio	3	440	9,280	3	425	8,940
Texas	6	1,490	24,000	5	1,290	20,100
Washington and Wyoming	3	516	9,910	4	859	16,600
Total	69	16,700	288,000	69	16,700	290,000

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 4
 GYPSUM PRODUCTS (MADE FROM DOMESTIC, IMPORTED,
 AND BYPRODUCT GYPSUM) SOLD OR USED
 IN THE UNITED STATES, BY USE 1/

(Thousand metric tons and thousand dollars)

Use	1994		1995	
	Quantity	Value	Quantity	Value
Uncalcined:				
Portland cement	4,750	54,200	4,680	54,600
Agriculture and miscellaneous 2/	2,520	33,700	2,140	33,600
Total	7,260	88,000	6,810	88,200
Calcined:				
Plasters	553	88,400	806	89,300
Prefabricated products 3/	19,200	2,450,000	18,700	1,950,000
Total calcined	19,700	2,540,000	19,500	2,030,000
Grand total	27,000	2,630,000	26,300	2,120,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes byproduct gypsum.

3/ Includes weight of paper, metal, or other materials and some byproduct gypsum.

TABLE 5
 PREFABRICATED GYPSUM PRODUCTS SOLD OR USED IN THE UNITED STATES 1/

Product	1994			1995		
	Thousand square feet	Thousand metric tons 2/	Value (thousands)	Thousand square feet	Thousand metric tons 2/	Value (thousands)
Lath:						
3/8 inch	6,890	4	\$1,410	6,100	4	\$1,250
1/2 inch	137	(3/)	24	57	(3/)	11
Other	5,870	5	407	--	--	--
Total	12,900	10	1,840	6,160	4	1,270
Veneer base	419,000	374	36,700	394,000	352	36,300
Sheathing	286,000	242	33,500	314,000	266	36,800
Regular gypsumboard:						
3/8 inch	918,000	711	69,100	839,000	661	65,400
1/2 inch	11,900,000	9,360	1,490,000	10,600,000	8,440	928,000
5/8 inch	1,470,000	1,230	57,300	1,510,000	1,290	80,500
1 inch	172,000	155	31,900	169,000	156	31,300
Other 4/	129,000	101	16,500	195,000	154	24,000
Total	14,600,000	11,500	1,660,000	13,300,000	10,700	1,130,000
Type X gypsumboard	5,530,000	5,160	461,000	6,080,000	5,510	486,000
Predecorated wallboard	87,100	78	27,900	84,200	75	27,300
5/16-inch mobile home board	1,230,000	843	117,000	1,260,000	943	139,000
Water-moisture-resistant board	658,000	558	84,500	880,000	740	75,700
Other	408,000	382	27,200	139,000	116	14,100
Grand total	23,200,000	19,200	2,450,000	22,500,000	18,700	1,950,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes weight of paper, metal, or other materials.

3/ Less than 1/2 unit.

4/ Includes 1/4, 7/16, and 3/4-inch gypsumboard.

TABLE 6
IMPORTS FOR CONSUMPTION OF CRUDE GYPSUM, BY COUNTRY 1/

(Thousand metric tons and thousand dollars)

Country	1994		1995	
	Quantity	Value	Quantity	Value
Australia	28	231	33	272
Bahamas, The	218	1,160	298	1,490
Canada 2/	5,900	45,600	5,560	43,800
China	(3/)	2	(3/)	4
Dominican Republic	(3/)	10	(3/)	8
Germany	(3/)	2	--	--
Hong Kong	--	--	(3/)	4
India	(3/)	10	--	--
Italy	--	--	(3/)	2
Jamaica	73	603	--	--
Japan	(3/)	42	(3/)	22
Mexico	1,990	11,600	1,890	11,600
Spain	264	2,060	379	2,730
United Kingdom	1	97	(3/)	95
Total	8,470	61,400	8,160	60,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes anhydrite.

3/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 7
SUMMATION OF U.S. GYPSUM AND GYPSUM PRODUCTS TRADE DATA 1/

(Thousand metric tons and thousand dollars)

Year	Crude 2/		Plasters 3/		Boards 4/		Other 5/	Total
	Quantity	Value	Quantity	Value	Quantity	Value	Value	Value
<u>Exports:</u>								
1994	89	4,090	153	22,800	74	19,800	26,700	73,400
1995	79	4,240	159	23,900	64	17,300	29,600	75,100
<u>Imports for consumption:</u>								
1994	8,470	61,400	5	980	370	39,700	39,300	141,000
1995	8,160	60,000	8	1,520	560	64,400	40,300	166,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Import and export data are for "Gypsum; anhydrite, " Harmonized Tariff Schedule 2520.10.0000.

3/ Import and export data are for "Plasters, " Harmonized Tariff Schedule 2520.20.0000.

4/ Import and export data are for " Boards, sheets, panels, tiles and similar articles, not ornamented: Faced or reinforced with paper or paperboard only," Harmonized Tariff Schedule 6809.11.0000.

5/ Import and export data are for "Boards, sheets, panels, tiles, and similar articles, not ornamented: other, " Harmonized Tariff Schedule 6809.19.000 and "Other articles," Harmonized Tariff Schedule 6809.90.0000.

TABLE 8
GYPSUM: WORLD PRODUCTION, BY COUNTRY 1/ 2/

(Thousand metric tons)

Country	1991	1992	1993	1994	1995 e/
Afghanistan e/	3	3	3	3	3
Algeria e/	152	150	150	150	175
Angola e/	57	57	50	50	50
Argentina	384	514	519	520 e/	510
Australia e/	2,000	2,000	2,000	2,000	2,000
Austria 3/	655	792	876	1,069	1,000
Azerbaijan e/	XX	100	75	60	50
Bolivia e/	4	6	4	1 r/ 4/	2 4/
Bhutan	27 r/	25 r/	20 e/	45 r/	52 4/
Bosnia and Herzegovina e/	XX	50	30	30	30
Brazil 3/	967	888	874 r/	789 r/	810
Bulgaria 3/	63	125	143 r/	150 r/	150
Burma	34	31	28	38 r/	35 4/
Canada 3/	6,830	7,566	7,880	8,500	7,956 4/
Chile	336	424	511	552 r/	550
China e/	10,500	11,000	10,600	10,500	11,000
Colombia	639	671	439	450	440
Croatia e/	XX	50	50	50	50
Cuba e/	130	125	125	125	130
Cyprus	37 e/	35 r/	40 r/	89 r/	90
Czech Republic	XX	XX	560 e/	591	542 4/
Czechoslovakia e/ 5/	624	600	XX	XX	XX
Dominican Republic	118	83	85 e/	83 e/	80
Ecuador e/	24 4/	24	24	24	24
Egypt 3/	1,239	1,425 r/	1,199	1,200 e/	1,200
El Salvador e/	5	5	5 r/	5 r/	5
Eritrea	XX	XX	XX	(6/)	(6/)
Ethiopia e/ 3/ 7/	2	3	3	31	54
France 3/	5,600 e/	5,160	5,000 e/	5,200 r/	5,000
Germany (marketable) 3/	4,210 e/	4,353	2,678	2,264 r/	2,000
Greece 3/	475 r/	452 r/	400 e/	454 r/	450
Guatemala	52	68	60 e/	61 r/ e/	62
Honduras e/	27	26	26	26	26
Hungary e/ 3/	110	50 r/	22 r/ 4/	25 r/	25
India	1,553	1,301	1,805 r/	1,676 r/	1,600
Indonesia	404	400 e/	2	1 r/	1 4/
Iran 8/	8,839 r/	8,253 r/	7,799 r/	8,430	8,230 4/
Iraq e/ 9/	190	380	450	450	450
Ireland	342	343	318	325 e/	350
Israel	26	48 r/	48 r/	48 r/ e/	48
Italy e/	1,290	1,300	1,200	1,200	1,200
Jamaica	136	145	152	204 r/	208 4/
Japan	4,508 r/	4,322 r/	3,953 r/	3,873 r/	3,900
Jordan	55	83	195	193 r/	190
Kenya e/ 3/	36	36	36	36	36
Laos	77	80	80 e/	85 e/	85
Latvia e/	XX	350	300	61 r/ 4/	79 4/
Lebanon e/	2	2	2	2	2
Libya e/	180	180	160 r/	160 r/	160
Luxembourg e/ 3/	(6/)	(6/)	(6/)	(6/)	(6/)
Macedonia e/	XX	30	30	25 r/	25
Mali e/	1	1	1	1	1
Mauritania	3	3	3 r/	-- r/	--
Mexico 3/	4,774	5,160	5,340	5,040 r/	4,918 4/
Moldova e/	XX	75 r/	25 r/	15 r/ 4/	14 4/
Mongolia e/	25	25	25	25	25
Morocco e/	450	450	450	450	450
Namibia e/	--	(6/)	(6/)	(6/ r/ 4/	--
Nicaragua 3/	16	9	11	11 r/ e/	13
Niger	1	2	2 e/	2 e/	2
Pakistan	522	462	535	607 r/	314 4/
Paraguay e/	5	5	5	5	5

See footnotes at end of table.

TABLE 8--Continued
 GYPSUM: WORLD PRODUCTION, BY COUNTRY 1/ 2/

(Thousand metric tons)

Country	1991	1992	1993	1994	1995 e/
Peru e/	160	35	35	35	35
Philippines 3/	28	25	25 e/	25 e/	25
Poland 3/	819 r/	848 r/	832	1,055 r/	950
Portugal 3/	359	417	459	450 e/	450
Romania	800 e/	800 e/	100 r/	124 r/	98 4/
Russia	XX	1,800	1,500	1,200	1,200
Saudi Arabia	375 e/	269 r/	327 r/	375 e/	375
Serbia and Montenegro	XX	48	--	40 r/	40
Sierra Leone e/	4	4	4	4	2
Slovakia 3/	XX	XX	75	122 r/	120
Slovenia e/	XX	10	10	10	10
Somalia e/	1	2	2	2	2
South Africa	420	334	284	304 r/	288 4/
Spain 3/	7,212 r/	6,760	7,250	7,250 e/	7,500
Sudan e/ 3/	7	10	10	10	10
Switzerland e/	230	200	200	200	200
Syria	183 r/	234	300 r/	302 r/	300
Taiwan	4	2	3	3 r/	3
Tajikistan e/	XX	500	400	300	200
Tanzania 3/	9 r/	27 r/	1 r/	8 r/	1 4/
Thailand	7,196	7,111	7,455 r/	8,140	8,533 4/
Tunisia e/	650 r/ 4/	650 r/	650 r/	650 r/	700
Turkey	307	278	493 r/	500 e/	500
Turkmenistan e/	XX	250 r/	200	150	150
U.S.S.R. e/ 10/	4,000	XX	XX	XX	XX
United Arab Emirates e/	95	95	95	95	90
United Kingdom e/ 3/	3,500	3,000	2,500	2,500	2,500
United States 11/	14,000	14,800	15,800	17,200	16,600 4/
Uruguay e/	145	145	145	145	145
Venezuela	244	175	224	135 r/	135
Vietnam e/	30	30	30	30	30
Yemen	66 r/	80	90 r/	80 e/	80
Yugoslavia e/ 12/	450	XX	XX	XX	XX
Zambia e/ 9/ 13/	14	13	13	13	13
Total	100,000	99,200 r/	96,900 r/	99,500 r/	98,100

e/ Estimated. r/ Revised. XX Not applicable.

1/ World totals, U.S. data, and estimated data are rounded to three significant digits; may not add to totals shown.

2/ Table includes data available through Aug. 15, 1996.

3/ Includes anhydrite.

4/ Reported figure.

5/ Dissolved Dec. 31, 1992.

6/ Less than 1/2 unit.

7/ Data are for years ending July 7 of that stated. Reported in cubic meters and estimated at mean weight of 1.5 tons per cubic meter. Data for 1991-93 probably does not include production for cement manufacture (normally 3-5% of finished cement, equivalent of an additional 10,000 to 15,000 tons per year).

8/ Data are for years beginning Mar. 21 of that stated.

9/ For cement production only. Information is insufficient to formulate reliable estimates for output for other uses (plaster, mortar, etc.).

10/ Dissolved in Dec. 1991.

11/ Excludes byproduct gypsum.

12/ Dissolved in Apr. 1992.

13/ Data are for years beginning Mar. 1 of that stated.