USGS
science for a changing world

2009 Minerals Yearbook

TALC AND PYROPHYLLITE [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

October 2010

Talc and Pyrophyllite

By Robert L. Virta

Domestic survey data and tables were prepared by Robin C. Kaiser, statistical assistant, and the world production table was prepared by Glenn J. Wallace, international data coordinator.

In 2009, talc production decreased to 511,000 metric tons (t) valued at $14.6 million from 706,000 t valued at $21.8 million in 2008. Sales of talc decreased to 512,000 t valued at $57.2 million from 667,000 t valued at $83.3 million in 2008. U.S. apparent consumption decreased to 443,000 t in 2009 from 655,000 t in 2008. Exports of talc decreased to 188,000 t in 2009 from 244,000 t in 2008, and imports decreased to 120,000 t in 2009 from 193,000 t in 2008. U.S. production and sales of pyrophyllite decreased slightly in 2009 (data are withheld to avoid disclosing proprietary information). World production of talc and pyrophyllite declined to 7.43 million metric tons (Mt) in 2009 from 7.58 Mt in 2008. The decline in the world economies, which began in early 2008, resulted in reduced sales to most of the industries on which talc is dependent.

Legislation and Government Programs

In 2009, the U.S. Department of Defense authorized the disposal of 865 t of block and lump talc and 621 t of ground talc, the entire uncommitted inventory of the National Defense Stockpile (NDS). There were no sales from the NDS in 2009.

Production

Talc.—Domestic production data were obtained through a voluntary survey of U.S. mining companies conducted by the U.S. Geological Survey (USGS). Survey forms were sent to six companies that mined talc, and responses were received from four companies. Responses accounted for about 99% of the production data presented in table 1. Data for the nonrespondents were estimated from preliminary reported data based on 9 months of production in 2009, reported prior-year data adjusted according to employment and consuming industry trends, and Mine Safety and Health Administration employment data.

In 2009, three companies operating six mines in three States mined talc. All were open pit mining operations. The producers were, in decreasing order of production, Luzenac Group (a division of Rio Tinto plc) in Montana and Vermont, American Talc Co. in Texas, and Specialty Minerals Inc. (a subsidiary of Minerals Technologies Inc.) in Montana. Alberene Soapstone Co. in Virginia, and CAL-TALC, Inc. and Protech Minerals Inc., both in California, worked from stockpiles in 2009. The three leading domestic producers collectively accounted for more than 99% of the U.S. tonnage mined.

U.S. mine production decreased to 511,000 t valued at $14.6 million compared with 706,000 t valued at $21.8 million in 2008 (table 1). The large decline in production from 2008 to 2009 resulted for two reasons. First, a major talc producer in New York closed its mine in 2008, reducing the production capacity of the U.S. talc industry significantly. Second, the world economic recession continued to have a major negative impact on U.S. talc production because of the continued low level of activity of the U.S. markets that the talc producers serve and reduced foreign markets for U.S. exports. In 2009, the three major talc producers reduced mine output and three small producers only worked from stocks. Output decreased in all producing States. Montana led all States in the tonnage of talc produced, followed by Texas and Vermont.

R.T. Vanderbilt Co., Inc. completely exited the talc market in mid-2009. The company, which stopped mining talc in 2008, was filling customer orders from stocks. The company cited decreased sales to the ceramic and paint markets as the main reason for the closure of its mine in New York (Ellen, 2009; Watertown Daily Times, 2009). R.T. Vanderbilt was one of the top four U.S. talc producers since it entered the talc market in the early 1970s and New York was the lead producing State for most of the time between 1900 and 1974.

Pyrophyllite.—Domestic production data of pyrophyllite (a hydrous aluminum silicate with a structure similar to talc) were acquired through a voluntary USGS survey of the two U.S. companies. Both companies responded to the survey.

Standard Mineral Co. operated two mines in North Carolina and Standard Industrial Minerals, Inc. operated one mine in California. Similar to talc, the pyrophyllite industry was negatively affected by the U.S. economic recession, with U.S. production decreasing in 2009 from that of 2008. Domestic data were withheld to avoid revealing company proprietary data.

Consumption

Domestic consumption data for talc and pyrophyllite were developed by the USGS from a voluntary survey of U.S. mills. Survey forms were sent to 9 companies operating 10 mills in 6 States for talc and 2 companies operating 2 mills in 2 States for pyrophyllite. Responses from six companies accounted for more than 99% of the talc data presented in table 2. The remaining data were estimated from preliminary data based on 9 months of production in 2009, reported prior-year data adjusted according to employment and consuming industry trends, and Mine Safety and Health Administration employment data.

Talc.—Sales and use were 512,000 t of talc valued at $57.2 million in 2009, a decrease from 667,000 t valued at $83.3 million in 2008 (table 1). U.S. producers reported that talc sold domestically and not exported decreased to 421,000 t in 2009 from 536,000 t in 2008. Ceramics (mainly ceramic tiles) were the leading market, followed by paint, paper, plastics, roofing, cosmetics, and rubber, in decreasing order of consumption (table 2). Sales to the domestic cosmetics industry increased slightly and sales to other markets decreased in 2009. The largest declines, by tonnage, were in sales to paint and paper markets. Most of the decline in paint sales was attributed to

lower demand for paint by the construction and manufacturing industries. There was a lower demand for paper products in North America in 2009 (Pulp and Paper Network, LLC, 2009). This reduced paper demand had a significant negative impact on sales of talc, which was used mainly for pitch control, to the paper industry. A decrease in U.S. manufacturing in 2009 resulted in a decline in talc sales to other talc markets.

Sales of talc to manufacturers of ceramics (mainly tile), paint, and roofing were tied to commercial and home construction and renovation. Construction starts for new privately owned housing decreased to 555,000 units in 2009 from 905,000 units in 2008 (U.S. Census Bureau, 2010b). The value of all construction (residential and commercial) decreased to $937 billion in 2009 from $1.07 trillion in 2008 (U.S. Census Bureau, 2010a).

Shipments of architectural paint (a major paint market for talc) decreased to 2.21 billion liters (585 million gallons) in 2009 from 2.57 billion liters (679 million gallons) in 2008 (U.S. Census Bureau, 2010c). Ceramic tile is a major market for talc. U.S. producers sell their talc to domestic tile manufacturers, whose tile competes with imported ceramic tile. The U.S. International Trade Commission (undated) reported that imports of ceramic tile under Harmonized Tariff Schedule of the United States (HTS) codes 6907.10.00, 6908.10.10, 6908.10.20, and 6908.10.50 decreased in quantity to 6.95 million square meters valued at $68.6 million in 2009 from 10.8 million square meters valued at $108 million in 2008. The decrease in imports was associated with decreased commercial and residential construction.

Most of the 120,000 t of imported talc listed in table 5 was not included in the domestic end-use data listed in table 2. An estimated end-use breakdown of sales of imports in 2009 is plastics, 89,000 t; cosmetics, 15,000 t; paint, 8,000 t; ceramics and refractory products, 3,000 t; paper, 2,000 t; rubber, 1,000 t; and other (unspecified), 2,000 t. Combining domestic sales by U.S. producers (table 2) with sales of imported talc, markets in the United States were, in decreasing order of consumption, plastics, ceramics, paint, paper, cosmetics, roofing, and rubber.

Mineral Technologies, the parent company for Specialty Minerals, reported talc sales of $32.3 million, a 10% decline in value from $35.9 million in 2008. Reduced sales took place in automotive and commercial and residential construction markets (Minerals Technologies Inc., 2010a, p. 20–21). Specialty Minerals operated a talc mine and mill near Barrett, MT.

Pyrophyllite.—In 2009, domestic consumption of pyrophyllite decreased slightly from that of 2008; data are withheld to avoid disclosing company proprietary data. Pyrophyllite was used in refractory products, paint, ceramics, and unspecified applications, in decreasing order of consumption. Refractory uses accounted for more than 50% of domestic pyrophyllite sales.

Prices

In 2009, the unit value of crude talc was estimated to be $29 per metric ton compared with $31 per ton in 2008. Nearly all talc sold in the United States was sold only after crushing and grinding. Following sorting to remove waste, primary crushing, and screening, the unit value of the unmilled talc would likely range from $50 to $60 per ton. The average reported unit value of processed talc was $111 per ton in 2009, a decrease from the unit value of $125 per ton in 2008. The lower unit value in 2009 resulted largely because of declines in sales to higher value talc markets, such as paints, paper, and plastics. The unit values of crude and processed pyrophyllite were essentially unchanged in 2009.

The average free alongside ship unit value of all exports increased to $200 per ton in 2009 from $189 per ton in 2008 (table 4). The unit value for milled talc (HTS code 2526.20.00.00) exports decreased to $199 per ton in 2009 from $211 per ton in 2008. Reduced world talc demand resulted in excess world capacity and pressure on producers to reduce prices for large volume talc purchases in 2009. The average free alongside ship unit value for exports of unmilled talc (HTS code 2526.10.00.00) increased to $460 per ton in 2009 from $327 per ton in 2008. The unit value of unmilled talc increased significantly because there were more high-value, low-tonnage exports in 2009 compared with those of 2008. The greater value of unmilled talc exports compared with milled talc exports is likely owing to the inclusion of more high-value specialty talc grades in unmilled talc exports.

The average Customs unit value for all talc imports was $400 per ton in 2009 compared with $292 per ton in 2008. The average unit value for imports of unground talc (HTS code 2526.10.00.00) was $287 per ton in 2009, an increase from $207 per ton in 2008, the result of higher valued unmilled talc imported from Brazil and Canada. The average customs value for ground talc (HTS code 2526.20.00.00) was $314 per ton in 2009, an increase from $262 per ton in 2008. Higher value imports from Canada and small but very high-valued shipments from several other countries caused the increase in value. The average customs value for cut or sawed talc (HTS code 6815.99.20.00) was $1,079 per ton, an increase from $1,044 per ton in 2008 (table 5).

Published prices for talc ranged from $92 to $245 per ton (table 3). Prices for pyrophyllite from the Republic of Korea, free on board, were $166 per ton for fiberglass and refractory manufacturing, $27 to $44 per ton for ceramic grade, and $110 to $150 per ton for filler grade. The price for filler grades from Australia was $342 per ton (Industrial Minerals, 2009d). Quoted prices should be used only as a guideline because actual prices depend on the contract terms between seller and buyer.

Foreign Trade

The following section summarizes significant trade statistics on talc. Detailed statistics, by country and U.S. port districts, are available from the U.S. International Trade Commission on its Interactive Tariff and Trade Dataweb Website (U.S. International Trade Commission, undated). In general, trade in talc declined in 2009 compared with that in 2008 because of the world economic recession. U.S. talc exports decreased in tonnage to 188,000 t valued at $37.6 million in 2009 from 244,000 t valued at $46.0 million in 2008. By tonnage, Mexico was the leading importer of talc from the United States, followed by Canada (table 4). These two countries accounted for 64% of U.S. exports. About 94% of talc exports were milled.

U.S. talc imports decreased to 120,000 t valued at $47.9 million in 2009 from 193,000 t valued at $56.4 million in 2008.

A decrease in talc imports from China and Canada accounted for most of the decline in U.S. imports in 2009. By tonnage, China was the leading source for imported talc, followed closely by Canada (table 5). Imports from Japan were likely pyrophyllite rather than talc.

World Review

World production of talc and pyrophyllite was estimated to be 7.43 Mt in 2009, a decrease from the 7.58 Mt produced in 2008. China was the world's leading producer of talc, followed by the United States, India, Finland, and France (crude). The Republic of Korea was the leading producer of pyrophyllite, followed by Japan and Brazil. Brazil, China, Finland, France, India, Japan, the Republic of Korea, and the United States together produced 81% of the world's talc and pyrophyllite (table 6).

Rio Tinto (the parent company for Rio Tinto Minerals) delayed the sale of its worldwide talc division, which had been on the market since 2007. The company indicated that poor economic conditions worldwide resulted in an undervaluing of their talc assets. Rio Tinto indicated that 2009 world sales, which were 888,000 t, declined 24% relative to 2008. Sales, however, increased 18% in the fourth quarter of 2009 compared with those of the same period in 2008 because of a slight recovery in European markets (Industrial Minerals, 2009e; Rio Tinto, 2010b, p. 6, 8). Rio Tinto Minerals, through its Luzenac North America division, was the leading U.S. talc producer, with mines in Montana and Vermont. Rio Tinto Minerals also had talc mines and mills in Australia, Austria, France, Italy, and Spain.

Canada.—Globex Engineering Enterprises Inc. continued its work on a magnesite and talc deposit near Timmins, Ontario. Preliminary testing suggested the talc was suitable for such markets as cosmetics, paper, and plastics (Industrial Minerals, 2009e).

China.—Mondo Minerals B.V., Europe's leading world producer of talc, entered into a joint venture with Chinese producer Beihai Group to mine talc in Liaoning Province, China. The venture allowed the company to access high-quality talc reserves in China and reduced its dependence on talc from its Finnish operation and other sources. Mondo Minerals also made this move because many of its customers were relocating in Asia, where markets were expanding (Industrial Minerals, 2009a).

India.—Golcha Associated Group, one of India's leading talc producers, increased production to 234,000 t in the 2008–09 fiscal year compared with 160,000 t in the 2007–08 fiscal year. In India, considerable growth in the paper, plastics, and paint industries in the past 4 to 5 years contributed to opportunities to expand talc sales (Industrial Minerals, 2009c).

Slovokia.—Mondo Minerals agreed to purchase at least 60,000 metric tons per year (t/yr) for 10 years from Rozmin s.r.o. Mondo Minerals also had the option to extend its purchase agreement for another 10 years and had the first right of refusal if EuroGas GmbH, the major partner in Rozmin, decided to sell its 51% interest in Rozmin. Rozmin planned to develop a talc deposit near Gemerska Poloma in eastern Slovakia, with production expected to begin in 2010. Ownership of the Gemerska Poloma deposit continued to be disputed by VSK Mining s.r.o. (Industrial Minerals, 2009b).

Thailand.—Golcha Group, India's leading talc producer, opened a new talc mill in Thailand. The 36,000-t/yr plant, operated by M/S Golcha-Chemintac Co. Ltd. Thailand processed Indian ore for ceramic, cosmetics, detergent, paint, paper, pharmaceutical, plastic, and soap markets in Southeast Asia (Industrial Minerals, 2009a).

Outlook

The worldwide economic recession continued to affect the global talc industry in 2009. Major market sectors, such as automotive, housing, and general manufacturing, declined in 2008 and made no significant recovery through most of 2009. This affected talc sales for such product applications as adhesives, caulks, ceramics, joint compounds, paint, plastics, roofing, and rubber.

U.S. industrial output and construction both appeared to slightly increase in early 2010 and hinted at the beginnings of an economic recovery. Economic growth was expected to be greatest in countries with developing and emerging economies, averaging 6% in 2010 and about 8% in 2011. The economies of other countries, particularly in Europe and North America, were expected to increase at a slower pace, averaging 2% in 2010 and 2.5% in 2011 (International Monetary Fund, 2010). Rio Tinto and Minerals Technologies reported production and sales of talc increased more than 19% in tonnage and 55% in value, respectively, in the first quarter of 2010 compared with that of the first quarter of 2009 (Minerals Technologies Inc., 2010b; Rio Tinto plc, 2010a). These increases in the first quarter of 2010 suggested that U.S. talc production and sales may rebound 7% or 8% in 2010. Although the increase may be significant, U.S. production, sales, and apparent consumption still may be considerably below those of 2006, before the recession began affecting the talc industry. Slightly greater growth may take place in 2011 if the economy continues to recover. Similar growth patterns may also be seen with pyrophyllite, as a slow recovery begins in major industries that use pyrophyllite to produce ceramic, paint, and refractory products.

References Cited

Ellen, Martha, 2009, Norwalk firm still fills orders for talc: Watertown, NY, Watertown Daily Times, January 13, 1 p. (Accessed January 14, 2009, at http://www.stamfordadvocate.com/morwalkadvocate/business/ci_11437088.)

Industrial Minerals, 2009a, Asian talc sources & markets attract majors: Industrial Minerals, no. 500, May, p. 20.

Industrial Minerals, 2009b, Mondo secures Slovak talc supply deal: Industrial Minerals, no. 499, April, p. 10.

Industrial Minerals, 2009c, Plastics & paint demand buoys Indian talc: Industrial Minerals, no. 506, November, p. 13.

Industrial Minerals, 2009d, Prices: Industrial Minerals, no. 498, March, p. 69.

Industrial Minerals, 2009e, Rio Tinto stalls talc unit sale: Industrial Minerals, no. 504, September, p. 11.

International Monetary Fund, 2010, A policy-driven, multispeed recovery: Washington, DC, International Monetary Fund, January 26, 6 p. (Accessed April 7, 2010, at http://www.imf.org/external/pubs/ft/weo/2010/update/01/pdf/0110.pdf.)

Minerals Technologies Inc., 2010a, Form 10–K—2009: Securities and Exchange Commission, 41 p.

Minerals Technologies Inc., 2010b, Form 10–Q—2010: Securities and Exchange Commission, 30 p.

Pulp and Paper Network, LLC, 2009, North American P&W shipments fell 8.2% last year: Pulp and Paper Network, LLC, February 10, 1 p. (Accessed February 26, 2009, at http://www.pulpandpaper.net/NetLetter/ThreeG/02262009.asp.)
Rio Tinto plc, 2010a, First quarter 2010 operations review: London, Rio Tinto plc press release, April 15, 26 p.
Rio Tinto plc, 2010b, Fourth quarter 2009 operations review: London, Rio Tinto plc press release, January 14, 26 p.
U.S. Census Bureau, 2010a, Annual value of construction put in place 2002–2009: U.S. Census Bureau, March, 1 p. (Accessed March 17, 2010, at http://www.census.gov/const/C30/total.xls.)
U.S. Census Bureau, 2010b, New privately owned housing units started: U.S. Census Bureau, March 17, 1 p. (Accessed March 17, 2010, at http://www.census.gov/const/startsan.pdf.)
U.S. Census Bureau, 2010c, Paint, varnish, and lacquer—Fourth quarter 2009: U.S. Census Bureau MQ325F(09)–4, March, 6 p. (Accessed March 17, 2010, at http://www.census.gov/manufacturing/cir/historical_data/mq325f/mq325f094.xls.)
U.S. International Trade Commission, [undated], Interactive tariff and trade dataweb: U.S. International Trade Commission. (Accessed March 17, 2010, at http://dataweb.usitc.gov/.)
Watertown Daily Times, 2009, Closed surface mine to be reborn as lake: Watertown [NY] Daily Times, April 19. (Accessed April 20, 2009, at http://www.wdt.net/article/20090419/NEWS05/304199943.)

GENERAL SOURCES OF INFORMATION

U.S. Geological Survey Publications

Talc. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
Talc and Pyrophyllite. Ch. in Mineral Commodity Summaries, annual.
Talc Resources of the Conterminous United States. Open-File Report 95–586, 1995.
USGS Study of Talc Deposits and Associated Amphibole Asbestos Within Mined Deposits of the Southern Death Valley Region, California, A. Open-File Report 2004–1092, 2004.
U.S. Talc—Baby Powder and Much More. Fact Sheet 065–00, 2000.

Other

Ceramic Industry.
Engineering and Mining Journal.
Mining Engineering.
Paint and Coatings Industry.
Talc. Ch. in Industrial Minerals and Rocks (7th ed.), Society for Mining, Metallurgy, and Exploration Inc., 2006.
Talc and Pyrophyllite. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.
Talc Industry—An Overview, The. U.S. Bureau of Mines Information Circular 9220, 1989.
Using the Geologic Setting of Talc Deposits as an Indicator of Amphibole Asbestos Content. Environmental Geology, 2004.

TABLE 1
SALIENT TALC AND PYROPHYLLITE STATISTICS[1]

(Thousand metric tons and thousand dollars)

	2005	2006	2007	2008	2009
United States:					
Mine production, crude:					
Quantity:					
Talc	856	895	769	706	511
Pyrophyllite	W	W	W	W	W
Value:					
Talc	24,400	27,400	24,400	21,800	14,600
Pyrophyllite	W	W	W	W	W
Sold by producers, crude and processed:					
Quantity:					
Talc	826	900	720	667	512
Pyrophyllite	W	W	W	W	W
Value:					
Talc	71,300	81,300	82,000	83,300	57,200
Pyrophyllite	W	W	W	W	W
Exports, talc:[2]					
Quantity	270	253	271	244	188
Value	45,000	46,800	50,600	46,000	37,600
Imports for consumption, talc:					
Quantity	237	314	221	193	120
Value	55,600	66,700	64,100	56,400	47,900
Apparent consumption[3]	823	956	719	655	443
World, production	7,950 [r]	7,770 [r]	7,700 [r]	7,580 [r]	7,430

[r]Revised. W Withheld to avoid disclosing company proprietary data.

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

[2]Excludes powder—talcum (in package), face, and compact.

[3]Production plus imports minus exports plus adjustments in Government and industry stocks. Does not include pyrophyllite.

TABLE 2
END USES FOR TALC
PRODUCED IN THE UNITED STATES[1]

(Thousand metric tons)

	2008	2009
Ceramics[2]	109	95
Cosmetics	14	16
Paint	124	81
Paper	100	81
Plastics	43	39
Roofing	49	31
Rubber	17	14
Other[3]	80	65
Total	536	421

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

[2]Includes tile.

[3]Includes art sculpture, asphalt filler, auto body filler, construction caulks, flooring, insecticides, joint compound, and other uses not specified.

TABLE 3
PRICES OF TALC

(Dollars per metric ton)

	Price
New York:	
Paint-grade:	
200 mesh	126
400 mesh	210
Ceramic-grade:	
200 mesh	92
325 mesh	115
Indian, cosmetic-grade	190–195
Chinese, normal (ex-store United Kingdom):	
200 mesh	215–235
350 mesh	220–245

Source: Industrial Minerals, March 2009.

TABLE 4
U.S. EXPORTS OF TALC[1, 2]

(Thousand metric tons and thousand dollars)

	2008		2009	
Country	Quantity	Value[3]	Quantity	Value[3]
Belgium	3	1,860	--	--
Canada[4]	69	12,400	54	10,400
Germany	1	118	--	--
Japan	4	1,110	5	743
Mexico	75	7,840	67	6,850
Singapore	4	1,520	3	1,170
Other[5]	88	21,200	59	18,400
Total	244	46,000	188	37,600

-- Zero.

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

[2]Excludes powders—talcum (in package), face, and compact.

[3]Free alongside ship.

[4]Probably includes shipments in transit through Canadian ports.

[5]Includes 56 countries in 2008 and 53 countries in 2009.

Source: U.S. Census Bureau, adjusted by the U.S. Geological Survey.

TABLE 5

U.S. IMPORTS FOR CONSUMPTION OF TALC, BY COUNTRY[1]

Country	Not crushed or powdered		Crushed or powdered		Cut and sawed		Total unmanufactured	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
2008:								
Brazil	363	$330	(2)	$35	1,210	$1,680	1,580	$2,040
Canada	7	8	59,400	17,900	11,100	9,320	70,500	27,200
China	97,600	19,700	(2)	190	1,330	1,620	98,900	21,500
France	--	--	(2)	343	--	--	--	343
Japan	--	--	18,300	1,510	58	140	18,400	1,650
Other[3]	596	306	2,190	1,010	772	2,320	3,560	3,630
Total	98,600	20,400	79,900	21,000	14,500	15,100	193,000	56,500
2009:								
Brazil	3	5	172	34	1,160	936	1,340	975
Canada	13	24	35,800	13,600	12,800	14,700	48,600	28,400
China	45,600	12,800	5,400	826	331	194	51,300	13,800
France	--	--	568	159	--	--	568	159
Japan	--	--	5,700	1,350	48	25	5,750	1,380
Other[3]	10	221	11,500	2,600	739	376	12,300	3,200
Total	45,600	13,100	59,100	18,600	15,100	16,300	120,000	47,900

-- Zero.

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

[2]Less than ½ unit.

[3]Includes 20 countries in 2008 and 18 countries in 2009.

Source: U.S. Census Bureau.

TABLE 6

TALC AND PYROPHYLLITE: WORLD PRODUCTION, BY COUNTRY AND PRODUCT[1, 2]

(Metric tons)

Country[3]	2005	2006	2007	2008	2009[e]
Argentina:					
Pyrophyllite	8,470	9,340	9,340	9,230 [r]	9,000
Steatite[e]	-- [r]	-- [r]	-- [r]	-- [r]	--
Talc	12,603	13,773	14,956	12,988 [r]	13,000
Australia:[e, 4]					
Pyrophyllite	1,200	1,200	1,200	1,200	1,200
Talc	154,000	130,000	120,000	120,000	120,000
Austria, soapstone and talc, crude	166,569	159,447	153,409	154,577 [r]	150,000
Bhutan, talc	42,791	45,000 [e]	62,015 [r]	56,077 [r]	60,000
Brazil, talc and pyrophyllite	413,340	389,471	401,204	401,210 [r]	401,300 [p, 5]
Canada, pyrophyllite, soapstone, talc	70,000	72,000	79,000	70,000 [e]	44,000 [5]
Chile, talc	4,201	1,961	2,104	2,108 [r]	2,000
China, unspecified[e]	2,300,000	2,400,000	2,000,000	2,200,000	2,300,000
Colombia, pyrophyllite, soapstone, talc[e]	-- [r]	-- [r]	-- [r]	-- [r]	--
Egypt, pyrophyllite, soapstone, steatite, talc	38,780	40,000 [e]	41,000 [r]	44,000 [r]	45,000
Finland, talc[e]	542,000 [5]	550,000	550,000	550,000	500,000
France, talc, crude[e]	416,000	420,000	420,000	420,000	420,000
Guatemala, talc	1,631	526	1,291	1,030 [r]	6,355 [5]
Hungary, talc[e]	500	500	500	500	500
India:[e]					
Pyrophyllite	85,000	86,000	87,000	87,000	88,000
Steatite	545,000	560,000	555,000	560,000	550,000
Iran, talc[e, 6]	70,600 [5]	70,000	90,889 [r, 5]	90,000 [r]	90,000
Italy, steatite and talc	112,781	146,942	140,000 [e]	140,000 [e]	140,000
Japan:[e]					
Pyrophyllite	351,111 [5]	350,000	345,000	350,000 [r]	340,000
Talc	25,491 [5]	25,500	26,000	26,000 [r]	25,000
Korea, North, unspecified[e]	50,000	50,000	50,000	50,000	50,000
Korea, Republic of:					
Pyrophyllite	885,559	677,465	798,054	892,625 [r]	900,000
Talc	83,471	64,118	9,557	6,438 [r]	6,500
Macedonia, talc	1,955	1,025	1,775	977 [r]	1,000
Mexico, talc	64,827	9,834	9,800 [e]	32,410	32,400
Morocco[e]	2,000	2,000	2,000	2,000	2,000
Nepal, talc[7]	5,832	6,648	9,043	9,040 [r, e]	9,000
Norway, soapstone, steatite, talc[e]	29,000	28,000	28,000	28,000	28,000
Pakistan, pyrophyllite	20,564	24,529	28,000	26,000 [e]	25,000
Paraguay, pyrophyllite, soapstone, talc[e]	200	200	200	200	200
Peru:					
Pyrophyllite	14,300	14,500	13,925	14,733 [r]	14,750 [p, 5]
Talc	9,500	9,550	9,171	17,984 [r]	13,296 [5]
Portugal, talc	5,362	5,517	12,367	8,447 [r]	8,500 [p]
Romania, talc[e]	10,000	2,967 [5]	1,513 [5]	1,500	1,500
Russia, talc[e]	160,000	160,000	170,000	160,000	160,000
Slovakia, talc[e]	-- [r]	-- [r]	-- [r]	-- [r]	--
South Africa:					
Pyrophyllite	60,267	74,886	123,573	80,704	114,897 [5]
Talc	8,469	10,966	14,281	5,145	4,718 [5]

See footnotes at end of table.

TABLE 6—Continued

TALC AND PYROPHYLLITE: WORLD PRODUCTION, BY COUNTRY AND PRODUCT[1, 2]

(Metric tons)

Country[3]	2005	2006	2007	2008	2009[e]
Spain, steatite and talc[e]	100,000	100,000	100,000	100,000	100,000
Sweden, soapstone and talc	14,000	14,000	14,000	14,000 [e]	14,000
Thailand:					
Pyrophyllite	177,684	131,843	415,420	106,600 [r]	105,000
Talc	10,270	4,374	3,508	3,264 [r]	3,000
Turkey, talc and pyrophyllite	8,775	4,969	12,722	12,000 [e]	12,000
United Kingdom, pyrophyllite, soapstone, talc	6,000	6,000	6,000 [e]	6,000 [e]	6,000
United States:					
Pyrophyllite	W	W	W	W	W
Talc	856,000	895,000	769,000	706,000	511,000 [5]
Uruguay, pyrophyllite, soapstone, talc[e]	1,131 [5]	1,150	1,150	1,150	1,150
Zimbabwe, talc[e]	--	140	200	200	200
Grand total	7,950,000 [r]	7,770,000 [r]	7,700,000 [r]	7,580,000 [r]	7,430,000
Of which:					
Pyrophyllite	1,600,000	1,370,000	1,820,000	1,570,000 [r]	1,600,000
Steatite	545,000	560,000	555,000	560,000	550,000
Talc	2,490,000	2,430,000	2,300,000 [r]	2,230,000 [r]	1,990,000
Unspecified	3,310,000 [r]	3,410,000 [r]	3,030,000 [r]	3,220,000 [r]	3,290,000

[e]Estimated. [p]Preliminary. [r]Revised. W Withheld to avoid disclosing company proprietary data; not included in "Total." -- Zero.

[1]World totals, U.S. data, and estimated data are rounded to no more than three significant digits; may not add to totals shown.

[2]Table includes data available through April 16, 2010.

[3]In addition to the countries listed, Nigeria may produce talc, but information is inadequate to estimate output.

[4]Data based on fiscal year ending June 30 of year stated.

[5]Reported figure.

[6]Data based on fiscal year beginning March 21 of year stated.

[7]Data based on fiscal year beginning mid-July of year stated.