

# Inorganic Chemicals

First Quarter  
2000

Issued August 2000

MQ325A(00)-1

*(Formerly Series No. MQ28A)*

Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1997 Manufacturing Profiles, issued August 1999.

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/econ/www/manumenu.html>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR's)," clicking on "Report Number Index;" from the "Industrial Products by Numeric Index," choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available through the U.S. Department of Commerce and STAT-USA Electronic Bulletin Board by subscription. To access, dial 202-482-3870 and follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information. The Internet address is: [www.stat-usa.gov/](http://www.stat-usa.gov/).

**NOTE:**

Data are now published on the new North American Industry Classification System (NAICS) basis and therefore are not always comparable to the old Standard Industrial Classification (SIC) code. For further information on NAICS, see [www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html).

Current  
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Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call JoAnna Nguyen, 301-457-4752.

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**U S C E N S U S B U R E A U**

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Economics and Statistics Administration  
U.S. Census Bureau



Table 1a. Summary of Production of Principal Inorganic Chemicals: 2000  
[Short tons]

Month and year	Chlorine gas (100 percent) (3251811011)	Sodium hydroxide, total liquid (100 percent) (3251814011)	Titanium dioxide, commodity weight (3251311000)	Hydrochloric acid (100 percent) (3251884021, 4025,4031)	Aluminum sulfate commercial (17 percent Al2O3) (3251887051)	Sodium sulfate, high purity (100 percent Na2SO4) (325188A1A1) 1/	Finished sodium bicarbonate (58 percent NaHCO3) (3251817031) 2/	Sodium chlorate (100 percent) (325188A141)
Year-to-date:								
2000.....	3,423,129	3,502,838	379,384	1,191,238	245,398	148,665	137,290	217,146
1999.....	3,217,989	2,837,594	353,095	998,597	274,952	(X)	(X)	196,391
2000								
First quarter.....	3,423,129	3,502,838	379,384	1,191,238	245,398	148,665	137,290	217,146
X Not applicable.								

Table 1b. Summary of Production of Principal Inorganic Chemicals: 1997 to 1999  
[Short tons]

Month and year	Chlorine gas (100 percent) (3251811011)	Sodium hydroxide, total liquid (100 percent) (3251814011)	Titanium dioxide, commodity weight (3251311000)	Hydrochloric acid (100 percent) (3251884021, 4025,4031)	Aluminum sulfate commercial (17 percent Al2O3) (3251887051)	Sodium sulfate (100 percent Na2SO4) (325188A1A1, A1A4)	Calcium phosphates (100 percent) (325188G047, G051, G054, 3253124241)	Sodium chlorate (100 percent) (325188A141)
1999								
Total.....	13,272,152	11,761,706	1,493,458	4,491,656	1,191,734	659,883	(D)	818,484
Fourth quarter.....	3,480,616	3,303,167	397,035	1,233,202	288,309	172,600	(D)	245,573
Third quarter.....	3,318,923	2,877,407	372,070	1,217,557	312,329	161,709	482,184	184,159
Second quarter.....	3,254,624	2,743,538	371,258	1,042,300	316,144	161,629	518,478	192,361
First quarter.....	3,217,989	2,837,594	353,095	998,597	274,952	163,945	487,777	196,391
1998								
Total.....	12,841,273	11,730,830	1,458,657	4,658,730	1,165,811	629,267	1,981,614	779,226
Fourth quarter.....	3,202,314	2,959,997	346,406	1,178,995	279,526	168,238	507,481	256,123
Third quarter.....	3,197,233	2,912,531	357,847	1,213,825	321,655	151,572	490,838	174,823
Second quarter.....	3,191,628	2,871,976	384,249	1,114,344	289,014	156,354	486,259	174,251
First quarter.....	3,250,098	2,986,326	370,155	1,151,566	275,616	153,103	497,036	174,029
1997								
Total.....	12,922,235	10,972,801	1,466,256	4,569,468	1,161,136	705,971	(D)	625,949
Fourth quarter.....	3,280,171	3,018,893	365,169	1,170,399	281,742	168,087	(D)	161,491
Third quarter.....	3,298,188	3,014,135	382,324	1,175,421	315,905	184,411	488,098	155,972
Second quarter.....	3,152,362	2,983,407	373,794	1,104,923	291,333	185,436	527,007	143,848
First quarter.....	3,191,514	1,956,366	344,969	1,118,725	272,156	168,037	527,936	164,638

D Withheld to avoid disclosing data for individual companies.

1/Prior to first quarter 2000, data was collected for "Sodium sulfate (100 percent Na2SO4) (325188A1A1, A1A4)."

2/Prior to first quarter 2000, data was collected for "Calcium phosphates (100 percent) (325188G047, G051, G054, 3253124241)."

Table 2. Primary Production and Stocks of Inorganic Chemicals  
[Short tons, unless otherwise noted]

Product code	Product description	First quarter 2000				Fourth quarter 1999		
		Total Production (quantity)	Total shipments, including interplant transfers		Total Production (quantity)	Total shipments, including interplant transfers		
			Quantity	Value		Quantity	Value	
Chlorine and alkalis:								
Chlorine (100 percent):								
3251811011	Gas 1/.....	3,423,129	(S)	(S)	3,480,616	(X)	(X)	
3251811021	Liquid.....	2,915,715	2,595,207 a/	251,632	2,891,675	(X)	(X)	
Sodium hydroxide (caustic soda) (100 percent) all processes:								
3251814011	Liquid 2/.....	3,502,838	(X)	(X) r/	3,303,167	(X)	(X)	
3251817011	Potassium hydroxide (caustic potash) (88-92 percent), liquid 2/.....	(S)	(S)	(S)	(S)	(X)	(X)	
3251817031	Finished sodium bicarbonate (58 percent NaHCO <sub>3</sub> ).....	137,290	(S)	(S) r/	151,439	(X)	(X)	
2123913111	Sodium carbonate, natural (soda ash) (58 percent) 3/.....	2,634	(X)	(X)	2,944	(X)	(X)	
Chlorine bleaches and other inorganic bleaching compounds:								
325188G0P4	Industrial, liquid and dry.....	(S)	(S)	(S)	(X)	(X)	(X)	
Acids:								
Hydrochloric (100 percent)								
3251884025	From chlorine and hydrogen.....	110,699	67,805	9,776	109,499	(X)	(X)	
3251884031	Byproduct and other 4/.....	1,080,539	(S)	(S)	1,123,703	(X)	(X)	
3251884041	Hydrocyanic (including anhydrous) (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)	
Aluminum oxide and aluminum compounds:								
3313110100	Aluminum oxide, except natural alumina (100 percent Al <sub>2</sub> O <sub>3</sub> ).....	(S)	(S)	(S)	(S)	(X)	(X)	
3251887021	Aluminum chloride, anhydrous (100 percent).....	(D)	(D)	(D)	(D)	(X)	(X)	
3251887031	Aluminum hydroxide, trihydrate (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)	
Aluminum sulfate:								
3251887051	Commercial (17 percent aluminum oxide) 5/..... a/	245,398 a/	253,108 a/	26,972 a/	288,309	(X)	(X)	
3251887061	Iron-free (17 percent aluminum oxide).....	(S)	(S)	(S)	(X)	(X)	(X)	
3251887071	Aluminates (sodium aluminate, potassium aluminate, etc) (100 percent)..... a/	84,345 a/	85,974 a/	15,773	(X)	(X)	(X)	
Potassium and sodium compounds:								
Potassium iodide (100 percent).....								
325188A117	Potassium pyrophosphate (tetrapotassium pyrophosphate) (anhydrous, 100 percent)..... a/	6,998	(S)	(S) a/	8,021	(X)	(X)	
325188A124	Potassium phosphates (100 percent by weight).....	(D)	(D)	(D)	(X)	(X)	(X)	
325188A141	Sodium chlorate (100 percent).....	217,146	222,346	66,529 r/	245,573	(X)	(X)	
325188A147	Sodium hydrosulfide (sodium sulfhydrate) (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)	
325188A151	Sodium hydrosulfite (100 percent).....	(D)	(D)	(D)	(D)	(X)	(X)	
Sodium phosphates:								
325188A157	Dibasic (produced for sale) (100 percent) 6/..... a/	4,967	(S)	(S)	(X)	(X)	(X)	
325188A164	Tetrabasic (pyro) (100 percent).....	4,373	3,899	3,289	(D)	(X)	(X)	
325188A167	Meta (100 percent).....	11,302	10,156 a/	7,505	11,823	(X)	(X)	
325188A171	Acid pyro (100 percent)..... a/	8,332	(S)	(S)	(X)	(X)	(X)	
325188A174	Tripoly (100 percent).....	(D)	(D)	(D)	(D)	(X)	(X)	
325188A177	Other sodium phosphates (including mono- and tribasic).....	(X)	(X)	(S)	(X)	(X)	(X)	
325188A181	Sodium silicate (soluble silicate glass, liquid and solid) (anhydrous) 7/.....	(S)	(S)	(S) a/	270,001	(X)	(X)	
325188A184	Metasilicate pentahydrate (100 percent).....	(S)	(S)	(S)	10,519	(X)	(X)	
325188A187	Metasilicate anhydrous (100 percent).....	(S)	(S)	(S)	9,370	(X)	(X)	
Sodium sulfate (100 percent):								
325188A1A1	High purity..... a/	148,665	(S)	(S)	(D)	(X)	(X)	
325188A1A7	Sodium sulfite (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)	
Other inorganic chemicals:								
325188G041	Calcium carbonate (precipitated) (100 percent).....	(D)	(D)	(D)	(X)	(X)	(X)	
325188G044	Calcium chloride (100 percent)..... a/	258,224 a/	180,519 a/	19,866	(X)	(X)	(X)	
Calcium phosphates:								
325188G047	Monobasic (21 percent minimum P) (100 percent)...	(D)	(D)	(D)	(D)	(X)	(X)	
325188G051	Dibasic (18.5 percent minimum P) (100 percent)....	133,845	127,544 a/	42,742	131,931	(X)	(X)	
Tribasic (deflourinated phosphate rock) (18.0 percent minimum P) 8/:								
3253124241	Animal feed grade (deflourinated phosphate rock) (100 percent).....	126,778	125,224 a/	24,877	122,051	(X)	(X)	
Carbon, activated 9/:								
325998H1E4	Granular carbons (dry weight) 10/..... a/	25,453	(S)	(S) a/	22,434	(X)	(X)	
325998H1E7	Pulverized carbons (dry weight)..... a/	16,384	(S)	(S) a/	20,972	(X)	(X)	
325188G081	Hydrogen peroxide (100 percent by weight)..... a/	101,000	(S)	(S)	(S)	(X)	(X)	
325188G084	Iodine (100 percent) quantity in pounds.....	(D)	907,472	6,426	(X)	(X)	(X)	
325188G087	Ferric chloride (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)	

Continued

Table 2. Primary Production and Stocks of Inorganic Chemicals  
 [Short tons, unless otherwise noted]

Product code	Product description	First quarter 2000			Fourth quarter 1999		
		Total Production (quantity)	Total shipments, including interplant transfers		Total Production (quantity)	Total shipments, including interplant transfers	
			Quantity	Value		Quantity	Value
325188G091	Iron oxides and hydroxides, excluding iron oxide pigments (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)
325188G0A1	Magnesium chloride (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)
325188G0B1	Manganese dioxide (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)
325188G0F1	Phosphorus oxychloride (100 percent).....	a/ 8,386	(D)	(D)	a/ 8,824	(X)	(X)
325188G0F4	Phosphorus pentasulfide (100 percent).....	11,753	11,490	12,400	13,288	(X)	(X)
325188G0F7	Phosphorus trichloride (chloride) (100 percent).....	(S)	(S)	(S)	14,727	(X)	(X)
325188G0G7	Silicon tetrachloride (sitet) (100 percent SiCl4).....	(S)	(S)	(S)	(S)	(X)	(X)
325188G0K1	Sulfur dioxide (100 percent).....	(S)	(S)	(S)	(X)	(X)	(X)
325188G0M1	Zinc sulfate (100 percent).....	14,068	(S)	(S)	(X)	(X)	(X)
3251311000	Titanium dioxide (composite and pure) (commodity weight) 11/.....	379,384	(X)	(X)	397,035	(X)	(X)

D Withheld to avoid disclosing data for individual companies. r/Revised by 5 percent or more from previously published data.  
 S Does not meet publication standards. X Not applicable.

- 1/Production includes amounts liquefied.
- 2/Liquid production figures represent total production, including quantities later evaporated to solid caustic.
- 3/Source: U.S. Geological Survey. Quantity reported in thousands of short tons.
- 4/Includes production from salt and acid
- 5/Excludes quantities produced and consumed in municipalities.
- 6/Represents quantities produced only for sale or interplant transfer.
- 7/Excludes amounts produced and consumed in making meta, ortho, and sesquisilicates.
- 8/Includes animal feed, but excludes other grades and superphosphate or other fertilizer materials.
- 9/Excludes reactivated carbon.
- 10/Includes pelleted carbon.
- 11/Represents total stocks of producing companies, including amounts held at locations other than producing plants.

Note: The percent of estimation of each item is indicated as follows (see "Description of Survey" in the text of the first quarter 1992 report for this series, MQ28A(92)-1, issued June 1992, for a discussion of estimation of missing reports): a/10 to 25 percent of this item is estimated. b/25 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3a. Production, Exports, Imports, and Apparent Consumption of Selected Inorganic Chemicals: Fourth Quarter 1999  
[Metric tons]

Product code	Product description	Quantity produced	Exports of domestic merchandise 1/	Imports for consumption 2/	Apparent consumption 3/	Percent imports to apparent consumption
3251811011	Chlorine.....	3,836,683	5,978	96,354	3,927,059	2.5
3251817011	Potassium hydroxide (caustic potash).....	(S)	6,341	5,082	(S)	(S)
3251814011	Sodium hydroxide (caustic soda).....	3,641,081	365,648	113,044	3,388,477	3.3
3251817031	Finished sodium bicarbonate.....	166,931	18,720	3,184	151,395	2.1
3251884021 3251884025 3251884031	Hydrochloric acid.....	1,359,359	11,615	19,623	1,367,367	1.4
3251884045 3251884051	Hydrofluoric acid.....	(D)	534	29,039	(D)	(D)
3313110100	Aluminum oxide (excludes natural alumina).....	(S)	270,887	895,664	(S)	(S)
3251887021	Aluminum chloride, anhydrous.....	(D)	4,553	143	(D)	(D)
3251887051	Aluminum sulfate.....	317,803	1,642	8,002	324,163	2.5
325188A134	Sodium metal.....	(D)	496	263	(D)	(D)
325188A141	Sodium chlorate.....	270,695	15,092	109,648	365,251	30.0
325188A161	Sodium phosphate (tribasic).....	8,470	108	2,179	10,541	20.7
325188A184 325188A187	Sodium metasilicate.....	21,924	6,891	359	15,392	2.3
325188A1A1 325188A1A4	Sodium sulfate.....	190,257	12,277	18,634	196,614	9.5
325188G037	Calcium carbide.....	(S)	5,784	58	(S)	(S)
325188G047 325188G051 3253124241 325188G054	Calcium phosphate.....	(D)	58,350	4,453	(D)	(D)
325998H1E4 325998H1E7	Carbon, activated, excludes reactivated carbon.....	47,846	7,021	12,311	53,136	23.2
325188G081	Hydrogen peroxide.....	(S)	12,087	16,553	(S)	(S)
325188G0E7	Phosphorus elemental.....	(D)	1,013	566	(D)	(D)
325188G0F1 325188G0F7	Phosphorus oxychloride and phosphorus trichloride.....	(S)	230	21	(S)	(Z)
3251311000	Titanium dioxide.....	437,652	109,286	53,193	381,559	13.9

D Withheld to avoid disclosing data for individual companies. S Data does not meet publication standards.  
Z Less than one-half of one percent.

1/Source: Census Bureau report EM 545, U.S. Exports (see Table 4).

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption (see Table 4).

3/Apparent consumption represents new domestic supply and is derived by subtracting exports from the total of manufacturers' production plus imports.

Table 3b. Production, Exports, Imports, and Apparent Consumption of Selected Inorganic Chemicals: First Quarter 2000  
[Metric tons]

Product code	Product description	Quantity produced	Exports of domestic merchandise 1/	Imports for consumption 2/	Apparent consumption 3/	Percent imports to apparent consumption
3251881011	Chlorine gas.....	3,773,315	5,102	96,170	3,864,383	2.5
3251814011	Sodium hydroxide, total liquid (all processes).....	3,861,178	461,390	119,379	3,519,167	3.4
3251817011	Potassium hydroxide, liquid.....	(S)	14,529	7,083	(S)	(S)
3251817031	Finished sodium bicarbonate.....	151,335	15,587	3,293	139,041	2.4
	Bleaches (sodium and calcium hypochloriate, etc.) 4/.....	(X)	14,382	11,619	(X)	(X)
3251884025, 4031	Hydrochloric acid.....	1,313,102	13,432	17,767	1,317,437	1.3
3313110100	Aluminum oxide.....	(S)	266,690	977,351	(S)	(S)
3251887021	Aluminum chloride.....	(D)	4,569	420	(D)	(D)
3251887031	Aluminum hydroxide, trihydrate.....	(S)	14,177	91,269	(S)	(S)
3251887051	Aluminum sulfate (commercial).....	270,502	1,679	6,688	275,511	2.4
3251887071	Aluminates.....	92,973	2,487	3,599	94,085	3.8
325188A111	Potassium iodide.....	(S)	12	97	(S)	(S)
325188A124	Potassium phosphates.....	(D)	557	2,798	(D)	(D)
325188A141	Sodium chlorate.....	239,360	11,806	100,390	327,944	30.6
	Sodium phosphate, mono- and dibasic 4/.....	(X)	503	2,618	(X)	(X)
	Sodium phosphate tribasic 4/.....	(X)	164	1,773	(X)	(X)
325188A174	Sodium phosphate tripoly.....	(D)	6,679	21,318	(D)	(D)
325188A181	Sodium silicates.....	(S)	7,912	7,304	(S)	(S)
325188A184, 8A187	Sodium metasilicates.....	(S)	2,764	486	(S)	(S)
	Sodium sulfate 4/.....	(X)	9,741	14,453	(X)	(X)
325188A1A7	Sodium sulfite.....	(S)	5,099	4,035	(S)	(S)
325188G041	Calcium carbonate, precipitated.....	(D)	18,511	20,192	(D)	(D)
325188G044	Calcium chloride.....	284,640	12,914	18,799	290,525	6.5
	Calcium phosphates 4/.....	(X)	43,689	4,714	(X)	(X)
325998H1E4, H1E7	Carbon activated (granular and pulverized).....	46,117	10,423	12,901	48,595	26.5
325188G081	Hydrogen peroxide.....	111,332	9,734	18,531	120,129	15.4
325188G084	Iodine.....	(D)	416	1,181	(D)	(D)
325188G091	Iron oxides and hydroxides.....	(S)	7,173	3,427	(S)	(S)

Continued

Table 3b. Production, Exports, Imports, and Apparent Consumption of Selected Inorganic Chemicals: First Quarter 2000  
[Metric tons]

Product code	Product description	Quantity produced	Exports of domestic merchandise 1/	Imports for consumption 2/	Apparent consumption 3/	Percent imports to apparent consumption
325188G0A1	Magnesium chloride.....	(S)	938	7,868	(S)	(S)
325188G0B1	Manganese dioxide.....	(S)	849	13,136	(S)	(S)
325188G0F1, G0F7	Phosphorous, oxychloride and trichloride.....	(S)	229	12	(S)	(S)
325188G0K1	Sulfur dioxide.....	(S)	755	12,271	(S)	(S)
325188G0M1	Zinc sulfate.....	15,507	1,838	2,902	16,571	17.5
3251311000	Titanium dioxide (composite and pure).....	418,195	108,881	55,590	364,904	15.2

D Withheld to avoid disclosing data for individual companies. S Does not meet publication standards.  
X Not applicable.

1/Source: Census Bureau report EM 545, U.S. Exports (see Table 4).

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption (see Table 4).

3/Apparent consumption represents new domestic supply and is derived by subtracting exports from manufacturers' production plus imports.

4/Not comparable to Census Bureau product codes.

**Table 4. Comparison of Standard Industrial Classification-Based Product Codes with Schedule B Export Numbers and HTSUSA Import Numbers: 2000**

<b>Product code</b>	<b>Product description</b>	<b>Export number 1/</b>	<b>Import number 2/</b>
3251881011	Chlorine gas.....	2801.10.0000	2801.10.0000
3251814011	Sodium hydroxide, total liquid (all processes).....	2815.12.0000 2815.11.0000	2815.12.0000 2815.11.0000
3251817011	Potassium hydroxide, liquid.....	2815.20.0050 2815.20.0090	2815.20.0050 2815.20.0090
3251817031	Finished sodium bicarbonate.....	2836.30.0000	2836.30.0000
	Bleaches (sodium and calcium hypochlorite, etc.) 3/...	2828.10.0000 2828.90.0000	2828.10.0000 2828.90.0000
3251884025, 4031	Hydrochloric acid.....	2806.10.0000	2806.10.0000
3313110100	Aluminum oxide.....	2818.20.0000	2818.20.0000
3251887021	Aluminum chloride.....	2827.32.0000	2827.32.0000
3251887031	Aluminum hydroxide, trihydrate.....	2818.30.0000	2818.30.0000
3251887051	Aluminum sulfate (commercial).....	2833.22.0000	2833.22.0000
3251887071	Aluminates.....	2841.10.0000	2841.10.0000
325188A111	Potassium iodide.....	2827.60.2000	2827.60.2000
325188A124	Potassium phosphates.....	2835.24.0000	2835.24.0000
325188A141	Sodium chlorate.....	2829.11.0000	2829.11.0000
	Sodium phosphate, mono- and dibasic 3/.....	2835.22.0000	2835.22.0000
	Sodium phosphate tribasic 3/.....	2835.23.0000	2835.23.0000
325188A174	Sodium phosphate tripoly.....	2835.31.0000	2835.31.0000
325188A181	Sodium silicates.....	2839.19.0000	2839.19.0000
325188A184, 8A187	Sodium metasilicates.....	2839.11.0000	2839.11.0000
	Sodium sulfate 3/.....	2833.11.1000 2833.11.5000 2833.19.0000	2833.11.1000 2833.11.5010 2833.19.0000
325188A1A7	Sodium sulfite.....	2832.10.0000	2832.10.0000



**Table 4. Comparison of Standard Industrial Classification-Based Product Codes with Schedule B Export Numbers and HTSUSA Import Numbers: 2000**

<b>Product code</b>	<b>Product description</b>	<b>Export number 1/</b>	<b>Import number 2/</b>
325188G041	Calcium carbonate, precipitated.....	2836.50.0000	2836.50.0000
325188G044	Calcium chloride.....	2827.20.0000	2827.20.0000
	Calcium phosphates 3/.....	2835.25.0000 2835.26.0000	2835.25.0000 2835.26.0000
325998H1E4, H1E7	Carbon activated (granular and pulverized).....	3802.10.0000	3802.10.0000
325188G081	Hydrogen peroxide.....	2847.00.0000	2847.00.0000
325188G084	Iodine.....	2801.20.0000	2801.20.0000
325188G091	Iron oxides and hydroxides.....	2821.10.0050	2821.10.0050
325188G0A1	Magnesium chloride.....	2827.31.0000	2827.31.0000
325188G0B1	Manganese dioxide.....	2820.10.0000	2820.10.0000
325188G0F1, 8G0F7	Phosphorous, oxychloride and trichloride.....	2812.10.5010	2812.10.5010
325188G0K1	Sulfur dioxide.....	2811.23.0000	2811.23.0000
325188G0M1	Zinc sulfate.....	2833.26.0000	2833.26.0000
3251311000	Titanium dioxide (composite and pure).....	2823.00.0000 3206.11.0000 3206.19.0000	2823.00.0000 3206.11.0000 3206.19.0000

1/Source: 2000 edition, Harmonized System-Based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2000).

3/Not comparable to Census Bureau product codes.