

# Inorganic Fertilizer Materials and Related Products: 2004

Issued September 2005

## *Summary*

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### Current Industrial Reports

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**SUMMARY OF FINDINGS.** United States production of sulfuric acid in 2004 totaled 41,919,567 short

tons (100 percent H<sub>2</sub>SO<sub>4</sub>), approximately 1.9 percent above the 2003 figure of 41,143,916 short tons.

Production of synthetic ammonia, nitric acid, and ammonium compounds increased 6.9 percent to 32,684,041 short tons in 2004, from 30,580,969 short tons in 2003. Phosphoric acid production increased 1.2 percent to 12,692,663 short tons in 2004, from 12,537,291 short tons in 2003.

Production of superphosphate and other phosphatic fertilizer materials for 2004 decreased 1.2 percent to 8,736,571 short tons (100 percent P<sub>2</sub>O<sub>5</sub>), from 8,837,307 short tons (100 percent P<sub>2</sub>O<sub>5</sub>) in 2003.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division, (MCD), Washington, DC 20233-6900, or call Nancy Higgins, 301-763-4768.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

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

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U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

Table 1. Shipments and Production of Principal Fertilizer Materials: 2000 to 2004  
 [Quantity in thousands of short tons. Value in millions of dollars]

Product code	Product description	Year	Total production	Total shipments including interplant transfers	
				Quantity	Value (f.o.b. plant)
3253111120	Ammonia, synthetic anhydrous 1/.....	2004	12,058	4,490	1,052
		2003	11,330	4,477	r/ 975
		2002	13,863	5,218	765
		2001	12,227	4,894	904
		2000	15,809	6,337	915
3253111201	Ammonium nitrate, original melt liquor 2/.....	2004	r/ 7,229	4,275	730
		2003	6,328	3,812	588
		2002	7,096	4,074	534
		2001	6,431	3,317	551
		2000	7,979	4,146	541
3253111240	Ammonium sulfate 1/.....	2004	3,005	2,989	399
		2003	2,871	r/ 2,919	r/ 315
		2002	2,945	2,506	216
		2001	2,588	2,353	249
		2000	2,808	2,082	103
3253114100	Urea (100 percent).....	2004	6,344	4,026	848
		2003	6,375	4,475	r/ 686
		2002	7,758	5,564	743
		2001	6,702	4,426	647
		2000	7,682	4,682	646
3253111111	Nitric acid (100 percent).....	2004	7,129	1,870	224
		2003	7,189	r/ 1,910	r/ 202
		2002	7,651	1,686	212
		2001	7,074	1,868	174
		2000	8,708	2,344	280
3253121100	Phosphoric acid (100 percent P2O5).....	2004	12,693	4,614	1,204
		2003	12,537	4,239	r/ 1,069
		2002	12,289	3,837	1,129
		2001	11,546	3,384	937
		2000	12,492	3,952	1,126
3251881100	Sulfuric acid, gross (100 percent).....	2004	41,920	12,577	637
		2003	41,144	11,598	611
		2002	39,760	11,891	593
		2001	40,064	10,940	557
		2000	43,643	11,930	572
3253124100	Superphosphates and other fertilizer materials (100 percent P2O5).....	2004	8,737	8,610	3,417
		2003	8,837	8,923	r/ 2,827
		2002	8,756	8,419	2,394
		2001	8,109	8,055	2,232
		2000	8,899	8,822	2,649

r/Revised by 5 percent or more from previously published data.

1/Excludes data for byproduct ammonia liquor and ammonium sulfate published by the Department of Energy.

2/Represents total amount of original melt liquor produced for all purposes.

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description	Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
<b>TOTAL</b>					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	12,057,896	4,490,481	1,052,327	(X)
3253111121	Fertilizer use.....	11,355,555	4,332,648	1,015,189	(X)
3253111131	Other uses.....	702,341	157,833	37,138	(X)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	7,229,397	4,274,897	729,947	(X)
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	137,685	(X)	(X)	(X)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	3,679,022	(X)	(X)	(X)
3253111221	High density prill and granular.....	1,384,499	1,397,946	229,139	(X)
3253111226	Low density prill and grained.....	1,609,757	1,603,839	296,247	(X)
3253111231	All other (e.g., liquor sales, etc.).....	418,434	415,476	62,774	(X)
3253111240	Ammonium sulfate (100 percent).....	3,005,015	2,988,603	398,624	(X)
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(X)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(X)
Nitrogen solutions, including mixtures					
3253111250	(100 percent N).....	3,262,735	3,001,022	554,862	(X)
3253111251	Ammonium nitrate/urea solutions.....	(D)	(D)	(D)	(X)
3253111256	All other solutions 4/.....	(D)	(D)	(D)	(X)
3253111111	Nitric acid (100 percent) 5/.....	7,128,998	1,869,809	223,937	(X)
3253114101	Urea original melt liquor.....	6,344,182	4,026,470	847,811	(X)
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	2,517,757	241,332	62,873	(X)
3253114121	Prills.....	868,267	813,761	177,934	(X)
3253114131	Granular.....	2,858,829	2,866,756	553,575	(X)
3253114141	All other (liquor sales, melamine, feedstock, other).....	99,329	104,621	53,429	(X)
3253121100	Phosphoric acid (100 percent P2O5).....	12,692,663	4,613,861	1,203,939	(X)
By use:					
3253121211	Fertilizer.....	11,721,157	3,987,710	940,750	(X)
3253121222	Feed and other 6/.....	971,506	626,151	263,189	(X)
By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	11,328,651	3,353,518	809,737	(X)
3253121321	Super (more than 65 percent P2O5) 6/.....	1,364,012	1,260,343	394,202	(X)
3253124100	Superphosphate and other phosphatic fertilizer materials:				
	Gross weight.....	18,371,108	18,106,635	3,416,865	(X)
	Nitrogen content.....	2,740,525	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	8,736,571	8,610,229	(X)	(X)
3253124131	Monoammonium phosphates:				
	Gross weight.....	5,739,799	5,683,315	1,080,730	(X)
	Nitrogen content.....	655,113	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,926,576	2,878,799	(X)	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	11,120,722	10,779,799	2,044,480	(X)
	Nitrogen content.....	1,994,465	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	5,138,732	5,047,236	(X)	(X)

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description	Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	1,510,587	1,643,521	291,655	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	671,263	684,194	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	41,919,567	12,576,839	636,745	(X)
	By feedstock:				
3251881111	Elemental sulfur.....	35,675,552	7,487,901	387,865	(X)
3251881121	Smelting metallic sulfide ore.....	2,453,338	2,391,605	68,029	(X)
3251881131	Decomposition of alkylation and other spent acid.....	2,991,594	1,939,783	143,124	(X)
3251881141	Other.....	799,083	757,550	37,727	(X)
	By grade:				
3251881212	Oleum grades.....	1,703,907	1,159,652	55,902	(X)
3251881231	Other than oleum grades.....	40,215,660	11,417,187	580,843	(X)
3251881311	Spent acid fortified in contact units and included in above production data .....	(D)	(X)	(X)	(X)
	Total new acid 7/.....	38,927,973	(X)	(X)	(X)
<b>FOURTH QUARTER</b>					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	b/ 2,974,748	c/r/ 985,008	c/ 237,876	b/r/ 400,521
3253111121	Fertilizer use.....	b/ 2,823,136	c/ 951,684	c/ 229,746	(D)
3253111131	Other uses.....	a/r/ 151,612	(S)	(S)	(D)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	b/r/ 1,977,344	b/ 1,081,552	b/r/ 186,826	b/r/ 152,540
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	38,099	(X)	(X)	r/ 4,105
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 1,067,060	(X)	(X)	b/r/ 52,931
3253111221	High density prill and granular.....	a/ 396,138	a/ 391,595	a/r/ 66,179	r/ 33,359
3253111226	Low density prill and grained.....	c/r/ 375,776	c/r/ 370,244	c/r/ 69,849	c/r/ 47,994
3253111231	All other (e.g., liquor sales, etc.).....	c/r/ 100,271	b/r/ 100,960	c/r/ 14,888	b/r/ 14,151
3253111240	Ammonium sulfate (100 percent).....	716,798	b/ 760,522	b/ 108,514	95,976
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(D)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(D)
Nitrogen solutions, including mixtures					
3253111250	(100 percent N).....	845,733	753,258	147,069	r/ 110,635
3253111251	Ammonium nitrate/urea solutions.....	b/ 815,210	b/ 727,269	c/ 141,651	(D)
3253111256	All other solutions 4/.....	b/ 30,523	a/ 25,989	a/ 5,418	(D)
3253111111	Nitric acid (100 percent) 5/.....	b/ 1,846,676	c/r/ 463,056	c/r/ 56,235	(X)
3253114101	Urea original melt liquor.....	a/ 1,706,689	c/ 1,018,409	c/r/ 219,560	b/r/ 107,736
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 686,101	a/r/ 50,338	a/r/ 10,729	(D)

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 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description		Total production	Total shipments including interplant transfers		Value	Stocks 1/
				Quantity			
3253114121	Prills.....	a/	211,783	177,372	b/r/	41,999	b/r/ 30,876
3253114131	Granular.....	a/r/	791,731	(D)		(D)	a/r/ 62,511
3253114141	All other (liquor sales, melamine, feedstock, other).....	r/	17,074	(D)		(D)	(D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,321,487	1,256,000		319,375	173,307
	By use:						
3253121211	Fertilizer.....		3,066,978	b/ 1,091,495	b/r/	257,478	162,098
3253121222	Feed and other 6/.....		254,509	164,505		61,897	11,209
	By grade:						
3253121311	Ortho (less than 65 percent P2O5).....		2,960,255	b/r/ 932,269	b/r/	216,950	152,324
3253121321	Super (more than 65 percent P2O5) 6/.....	r/	361,232	323,731		102,425	r/ 20,983
3253124100	Superphosphate and other phosphatic fertilizer materials:						
	Gross weight.....		4,600,025	4,448,077		887,566	618,018
	Nitrogen content.....		709,811	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		2,193,889	2,106,513		(X)	(X)
3253124131	Monoammonium phosphates:						
	Gross weight.....		1,273,653	1,245,082		247,512	108,207
	Nitrogen content.....		144,498	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		646,310	617,282		(X)	(X)
3253124211	Diammonium phosphates:						
	Gross weight.....		2,994,352	2,764,787		556,533	r/ 433,483
	Nitrogen content.....		542,744	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		1,390,069	1,325,583		(X)	(X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:						
	Gross weight.....	r/	332,020	r/ 438,208	a/r/	83,521	a/ 76,328
	Nitrogen content.....		(X)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/r/	157,510	a/r/ 163,648	b/r/	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/						
	Total gross.....	a/	10,696,191	b/r/ 3,114,178	b/r/	155,218	b/ 477,589
	By feedstock:						
3251881111	Elemental sulfur.....	a/	9,191,439	b/r/ 1,881,519	b/r/	97,290	(X)
3251881121	Smelting metallic sulfide ore.....		614,853	608,019	a/	16,460	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/	685,387	b/ 434,255	b/r/	32,013	2,547
3251881141	Other.....	a/	204,512	a/ 190,385	a/	9,455	(X)
	By grade:						
3251881212	Oleum grades.....	b/r/	427,132	b/r/ 294,031	b/r/	14,254	b/ 39,659
3251881231	Other than oleum grades.....	a/	10,269,059	a/r/ 2,820,147	b/	140,964	b/ 437,930
3251881311	Spent acid fortified in contact units and included in above production data .....		(D)	(X)		(X)	(D)
	Total new acid 7/.....		10,010,804	(X)		(X)	(X)
<b>THIRD QUARTER</b>							
	Ammonia:						
3253111120	Synthetic, anhydrous (100 percent).....	b/	3,029,959	r/c/ 1,270,985	c/r/	298,786	b/r/ 319,186
3253111121	Fertilizer use.....	b/	2,845,821	r/b/ 1,217,877	c/r/	286,809	(D)
3253111131	Other uses.....	a/r/	184,138	r/b/ 53,108	b/r/	11,977	(D)

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description		Total production	Total shipments including interplant transfers		Stocks 1/
				Quantity	Value	
3253111201	Ammonium nitrate (100 percent):					
3253111211	Original melt liquor 2/.....	b/r/	1,821,504	b/	1,015,453	b/ 174,475 c/r/ 103,355
3253111216	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....		30,148		(X)	(X) (D)
3253111221	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/	992,270		(X)	(X) c/r/ 33,594
3253111226	High density prill and granular.....	a/	249,408	a/	257,056	a/r/ 41,016 (D)
3253111231	Low density prill and grained.....	b/	434,090	b/r/	424,073	b/r/ 79,231 c/r/ 39,365
3253111240	All other (e.g., liquor sales, etc.).....	b/r/	115,588	b/r/	105,856	b/r/ 16,593 r/ 14,987
3253111240	Ammonium sulfate (100 percent).....		728,643	b/	698,480	b/ 95,674 123,069
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....		(D)		(D)	(D) 7,797
3253111246	Byproduct 3/.....		(D)		(D)	(D) 115,272
3253111250	Nitrogen solutions, including mixtures (100 percent N).....		782,103		734,053	136,303 r/ 90,632
3253111251	Ammonium nitrate/urea solutions.....		(D)		(D)	(D) (D)
3253111256	All other solutions 4/.....		(D)		(D)	(D) (D)
3253111111	Nitric acid (100 percent) 5/.....	b/	1,688,238	c/r/	478,147	b/r/ 55,190 (X)
3253114101	Urea original melt liquor.....	b/	1,597,059	b/	940,673	c/r/ 195,639 b/r/ 111,614
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/	619,808	r/	43,725	r/ 8,971 c/r/ 7,076
3253114121	Prills.....		(D)		(D)	(D) (D)
3253114131	Granular.....	a/r/	714,522		(D)	(D) a/r/ 56,224
3253114141	All other (liquor sales, melamine, feedstock, other).....		15,606		(D)	(D) (D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,047,495		1,147,663	r/ 293,738 164,611
3253121211	By use:					
3253121222	Fertilizer.....		2,812,823	a/r/	983,581	a/r/ 232,215 (D)
3253121311	Feed and other 6/.....		234,672		164,082	61,523 (D)
3253121321	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....		2,716,482	a/r/	836,109	a/r/ 195,724 151,232
3253121321	Super (more than 65 percent P2O5) 6/.....		331,013		311,554	r/ 98,014 r/ 13,379
3253124100	Superphosphate and other phosphatic fertilizer materials:					
3253124131	Gross weight.....		4,357,812		4,377,840	846,783 r/ 469,856
3253124211	Nitrogen content.....		641,788		(X)	(X) (X)
3253124222	Phosphoric oxide content (100 percent P2O5).....		2,066,200		2,073,166	(X) (X)
3253124131	Monoammonium phosphates:					
3253124211	Gross weight.....		1,456,737		1,510,105	293,396 83,833
3253124222	Nitrogen content.....		167,386		(X)	(X) (X)
3253124211	Phosphoric oxide content (100 percent P2O5).....		740,235		763,754	(X) (X)
3253124211	Diammonium phosphates:					
3253124222	Gross weight.....		2,555,454		2,531,994	492,983 r/ 290,128
3253124211	Nitrogen content.....		453,572		(X)	(X) (X)
3253124222	Phosphoric oxide content (100 percent P2O5).....		1,176,492		1,164,983	(X) (X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:					

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description	Total shipments including interplant transfers						
		Total production	Quantity	Value	Stocks 1/			
	Gross weight.....	r/ 345,621	a/r/ 335,741	b/r/ 60,404	95,895			
	Nitrogen content.....	(X)	(X)	(X)	(X)			
	Phosphoric oxide content (100 percent P2O5).....	a/r/ 149,473	a/r/ 144,429	a/r/ (X)	(X)			
3251881100	Sulfuric acid (100 percent): 5/							
	Total gross.....	a/ 10,434,270	b/r/ 3,297,526	b/ 171,356	a/ 477,475			
	By feedstock:							
3251881111	Elemental sulfur.....	8,739,042	b/r/ 1,942,665	b/r/ 100,418	(X)			
3251881121	Smelting metallic sulfide ore.....	662,001	625,754	a/ 19,740	(X)			
3251881131	Decomposition of alkylation and other spent acid.....	a/ 832,730	a/ 534,282	b/r/ 41,208	(D)			
3251881141	Other.....	a/ 200,497	b/r/ 194,825	b/r/ 9,990	(X)			
	By grade:							
3251881212	Oleum grades.....	b/r/ 414,667	b/r/ 293,688	b/r/ 14,161	b/ 29,793			
3251881231	Other than oleum grades.....	10,019,603	b/r/ 3,003,838	b/ 157,195	a/ 447,682			
3251881311	Spent acid fortified in contact units and included in above production data .....	(D)	(X)	(X)	(D)			
	Total new acid 7/.....	9,601,540	(X)	(X)	(X)			
<b>SECOND QUARTER</b>								
	Ammonia:							
3253111120	Synthetic, anhydrous (100 percent).....	b/ 2,903,026	b/r/ 1,121,180	c/r/ 252,065	b/r/ 305,109			
3253111121	Fertilizer use.....	b/ 2,740,731	(D)	(D)	(D)			
3253111131	Other uses.....	a/r/ 162,295	(D)	(D)	(D)			
	Ammonium nitrate (100 percent):							
3253111201	Original melt liquor 2/.....	a/ 1,662,828	b/ 1,089,387	b/ 186,781	c/r/ 88,447			
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	r/ 36,970	(X)	(X)	(D)			
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 827,584	(X)	(X)	c/r/ 36,118			
3253111221	High density prill and granular.....	a/ 284,564	a/ 342,643	56,811	c/r/ 11,952			
3253111226	Low density prill and grained.....	b/ 411,311	b/r/ 406,022	b/r/ 73,230	(D)			
3253111231	All other (e.g., liquor sales, etc.).....	b/r/ 102,399	b/r/ 103,628	b/r/ 15,970	a/r/ 5,560			
3253111240	Ammonium sulfate (100 percent).....	760,998	b/r/ 781,241	b/r/ 98,766	110,650			
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(D)			
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(D)			
	Nitrogen solutions, including mixtures (100 percent N).....	832,397	861,538	r/ 156,437	r/ 114,218			
3253111251	Ammonium nitrate/urea solutions.....	a/ 801,250	a/ 840,631	b/r/ 152,986	b/r/ 109,360			
3253111256	All other solutions 4/.....	b/ 31,147	a/ 20,907	a/ 3,451	4,858			
3253111111	Nitric acid (100 percent) 5/.....	b/ 1,742,170	c/r/ 456,238	c/ 52,686	(X)			
3253114101	Urea original melt liquor.....	a/ 1,522,661	a/ 1,003,763	c/r/ 210,761	a/r/ 101,281			
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 614,058	(D)	(D)	(D)			
3253114121	Prills.....	(D)	a/r/ 211,171	a/r/ 44,518	c/r/ 45,233			
3253114131	Granular.....	a/r/ 659,641	a/ 692,844	c/ 129,246	b/r/ 47,720			
3253114141	All other (liquor sales, melamine, feedstock, other).....	(D)	(D)	(D)	(D)			

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description	Total production	Total shipments including interplant transfers			Stocks 1/
			Quantity	Value		
3253121100	Phosphoric acid (100 percent P2O5).....	3,127,462	r/	1,113,686	294,158	173,668
	By use:					
3253121211	Fertilizer.....	2,861,612	a/	947,889	a/ 218,541	164,315
3253121222	Feed and other 6/.....	265,850	r/	165,797	75,617	9,353
	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	2,788,934	a/	799,916	a/ 196,264	152,565
3253121321	Super (more than 65 percent P2O5) 6/.....	338,528	r/	313,770	97,894	21,103
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,622,372		4,606,561	846,794	501,606
	Nitrogen content.....	686,975		(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,201,010		2,192,517	(X)	(X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	1,423,350	r/	1,435,406	a/r/ 265,431	145,005
	Nitrogen content.....	161,948		(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	731,458		731,423	(X)	(X)
3253124211	Diammonium phosphates:					
	Gross weight.....	2,837,126	r/	2,814,803	520,594	a/r/ 279,711
	Nitrogen content.....	507,303		(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	1,310,264		1,306,621	(X)	(X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:					
	Gross weight.....	r/ 361,896	a/r/	356,352	b/r/ 60,769	b/ 76,890
	Nitrogen content.....	(X)		(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/r/ 159,288	a/r/	154,473	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/					
	Total gross.....	a/ 10,423,699	b/r/	3,172,493	b/r/ 159,295	a/ 438,452
	By feedstock:					
3251881111	Elemental sulfur.....	a/ 8,815,246	b/r/	1,828,961	b/r/ 95,643	(X)
3251881121	Smelting metallic sulfide ore.....	630,992	b/	636,954	a/ 17,060	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 777,698	b/r/	519,144	b/r/ 37,302	76,890
3251881141	Other.....	a/ 199,763	b/r/	187,434	b/r/ 9,290	(X)
	By grade:					
3251881212	Oleum grades.....	b/r/ 408,696	b/r/	272,339	b/r/ 13,190	b/ 28,364
3251881231	Other than oleum grades.....	10,015,003	b/r/	2,900,154	b/r/ 146,105	a/ 410,088
3251881311	Spent acid fortified in contact units and included in above production data .....	(D)		(X)	(X)	(D)
	Total new acid 7/.....	9,646,001		(X)	(X)	(X)
<b>FIRST QUARTER</b>						
	Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	b/ 3,150,163	b/	1,113,308	b/r/ 263,600	b/r/ 380,784
3253111121	Fertilizer use.....	b/ 2,945,867		(D)	(D)	(D)
3253111131	Other uses.....	a/r/ 204,296		(D)	(D)	(D)



Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description		Total production	Total shipments including interplant transfers			Stocks 1/		
				Quantity	Value				
	Ammonium nitrate (100 percent):								
3253111201	Original melt liquor 2/.....	a/	1,767,721	b/r/	1,088,505	b/r/	181,865	b/r/	206,189
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....		32,468		(X)		(X)		(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/	792,108		(X)		(X)		(D)
3253111221	High density prill and granular.....	a/	454,389	a/r/	406,652	a/	65,133		82,716
3253111226	Low density prill and grained.....	b/	388,580	b/r/	403,500	b/r/	73,937	c/r/	37,769
3253111231	All other (e.g., liquor sales, etc.).....	b/r/	100,176	b/r/	105,032	b/r/	15,323	a/r/	12,225
3253111240	Ammonium sulfate (100 percent).....		798,576	a/r/	748,360	b/r/	95,670		141,249
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....		(D)		(D)		(D)		(D)
3253111246	Byproduct 3/.....		(D)		(D)		(D)		(D)
	Nitrogen solutions, including mixtures (100 percent N).....		802,502	r/	652,173	r/	115,053	r/	205,129
3253111251	Ammonium nitrate/urea solutions.....	a/	767,850	a/r/	626,400	c/r/	110,354	a/r/	198,695
3253111256	All other solutions 4/.....	b/	34,652	a/	25,773	b/	4,699		6,434
3253111111	Nitric acid (100 percent) 5/.....	b/r/	1,851,914	c/r/	472,368	b/	59,826		(X)
3253114101	Urea original melt liquor.....	a/	1,517,773	a/r/	1,063,625	c/r/	221,851	b/	117,468
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/	597,790		65,220		18,261		(D)
3253114121	Prills.....	a/r/	175,872	a/	180,404	a/r/	40,425	b/r/	42,032
3253114131	Granular.....	a/r/	692,935	a/r/	762,979		(S)	b/r/	60,984
3253114141	All other (liquor sales, melamine, feedstock, other).....	r/	51,176		55,022		20,894		(D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,196,219	r/	1,096,512	r/	296,668		173,006
	By use:								
3253121211	Fertilizer.....		2,979,744	a/r/	964,745	b/	232,516		164,979
3253121222	Feed and other 6/.....	r/	216,475	a/r/	131,767	r/	64,152	r/	8,027
	By grade:								
3253121311	Ortho (less than 65 percent P2O5).....		2,862,980	a/r/	785,224	b/	200,799		146,621
3253121321	Super (more than 65 percent P2O5) 6/.....		333,239	r/	311,288	r/	95,869		26,385
3253124100	Superphosphate and other phosphatic fertilizer materials:								
	Gross weight.....		4,790,899	r/	4,674,157	r/	837,613		504,921
	Nitrogen content.....		701,951		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....		2,275,472		2,238,033		(X)		(X)
3253124131	Monoammonium phosphates:								
	Gross weight.....		1,586,059	r/	1,492,722	a/r/	274,391	r/	150,479
	Nitrogen content.....		181,281		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....		808,573	r/	766,340		(X)		(X)
3253124211	Diammonium phosphates:								
	Gross weight.....		2,733,790	r/	2,668,215	a/r/	474,370	a/r/	273,551
	Nitrogen content.....		490,846		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....		1,261,907		1,250,049		(X)		(X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:								

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2004  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Product description		Total production	Total shipments including interplant transfers		Stocks 1/		
				Quantity	Value			
	Gross weight.....	r/	471,050	a/r/	513,220	b/r/	88,852	80,891
	Nitrogen content.....		(X)		(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/r/	204,992	a/r/	221,644		(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/ Total gross.....	a/	10,365,407	b/r/	2,992,642	b/	150,876	a/r/ 415,459
	By feedstock:							
3251881111	Elemental sulfur.....	a/	8,929,825	b/r/	1,834,756	b/r/	94,514	(X)
3251881121	Smelting metallic sulfide ore.....		545,492	r/	520,878	a/r/	14,769	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/r/	695,779	b/	452,102	b/r/	32,601	80,891
3251881141	Other.....	a/	194,311	b/r/	184,906	b/r/	8,992	(X)
	By grade:							
3251881212	Oleum grades.....	b/r/	453,412	b/r/	299,594	b/r/	14,297	b/ 26,668
3251881231	Other than oleum grades.....		9,911,995	b/r/	2,693,048	b/	136,579	a/r/ 388,791
3251881311	Spent acid fortified in contact units and included in above production data .....		(D)		(X)		(X)	(D)
	Total new acid 7/.....		9,669,628		(X)		(X)	(X)

D Withheld to avoid disclosing data for individual companies. N Nitrogen content. P2O5 Phosphoric oxide content. r/Revised by 5 percent or more from previously published data. S Does not meet publication standards. X Not applicable.

1/Stocks held by producing companies include amounts held at their nonproducing locations.

2/Production represents total amount of ammonium nitrate produced including amounts for fertilizer, explosives, and other uses, and amounts consumed in manufacturing other products, such as nitrogen solutions. Stocks represent total stocks held by producing companies, including stock of original melt liquor and amounts (liquid and solid) reported as fertilizer, explosives, and other uses.

3/Excludes coke oven byproduct ammonium sulfate.

4/Solutions containing two or more products such as (a) ammonia, ammonium nitrate; (b) ammonia, urea; (c) ammonia, ammonium nitrate, urea.

5/Includes data for government-owned, contractor-operated plants.

6/Product code 3253121222 includes product codes 3253121111 and 3253121221, and product code 3253121321 includes product codes 3253121111 and 3253121322.

7/Total new acid equals total gross acid, minus fortified spent acid and sulfuric acid produced from the decomposition of alkylation acids and other spent acids and sludge acid.

Note: Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Total production	Total shipments including interplant transfers		Stocks 1/	
		Quantity	Value		
<b>TOTAL</b>					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	11,330,349	4,477,136	r/ 975,019	(X)
3253111121	Fertilizer use.....	10,041,201	r/ 3,956,461	r/ 871,216	(X)
3253111131	Other uses.....	r/ 1,289,148	520,675	103,803	(X)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	6,327,863	3,812,366	588,472	(X)
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	91,574	(X)	(X)	(X)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	2,747,490	(X)	(X)	(X)
3253111221	High density prill and granular.....	1,422,437	1,417,791	r/ 221,052	(X)
3253111226	Low density prill and grained.....	1,596,050	1,576,136	253,350	(X)
3253111231	All other (e.g., liquor sales, etc.).....	r/ 470,312	r/ 381,215	47,822	(X)
3253111240	Ammonium sulfate (100 percent).....	2,870,717	r/ 2,918,821	r/ 315,365	(X)
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(X)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(X)
Nitrogen solutions, including mixtures (100 percent N).....					
3253111250	Ammonium nitrate/urea solutions.....	2,863,079	2,797,029	639,344	(X)
3253111251	Ammonium nitrate/urea solutions.....	2,767,721	2,715,693	627,270	(X)
3253111256	All other solutions 4/.....	95,358	81,336	12,074	(X)
3253111111	Nitric acid (100 percent) 5/.....	7,188,961	r/ 1,910,166	r/ 201,563	(X)
3253114101	Urea original melt liquor.....	6,374,760	4,475,319	r/ 686,353	(X)
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	2,164,874	240,664	57,238	(X)
3253114121	Prills.....	1,086,469	r/ 1,087,423	r/ 205,272	(X)
3253114131	Granular.....	2,978,769	3,007,938	r/ 371,609	(X)
3253114141	All other (liquor sales, melamine, feedstock, other).....	144,648	139,294	52,234	(X)
3253121100	Phosphoric acid (100 percent P2O5).....	12,537,291	4,238,605	r/ 1,189,464	(X)
By use:					
3253121211	Fertilizer.....	11,628,509	3,688,202	r/ 935,310	(X)
3253121222	Feed and other 6/.....	r/ 908,782	r/ 550,403	r/ 254,154	(X)
By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	10,911,561	2,753,515	r/ 771,148	(X)
3253121321	Super (more than 65 percent P2O5) 6/.....	1,625,730	r/ 1,485,090	r/ 418,316	(X)
3253124100	Superphosphate and other phosphatic fertilizer materials:				
	Gross weight.....	18,576,255	r/ 18,442,458	r/ 2,827,455	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	8,837,307	8,923,196	(X)	(X)
3253124131	Monoammonium phosphates:				
	Gross weight.....	r/ 5,296,491	r/ 5,425,289	r/ 875,100	(X)
	Nitrogen content.....	606,498	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,718,661	2,791,099	r/ (X)	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	11,549,793	r/ 11,527,071	1,729,099	(X)
	Nitrogen content.....	2,122,870	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	5,385,859	5,429,987	(X)	(X)

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	1,729,971	1,490,098	r/ 223,256	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	732,787	702,110	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	41,143,916	11,598,483	611,407	(X)
	By feedstock:				
3251881111	Elemental sulfur.....	35,370,817	6,920,827	359,893	(X)
3251881121	Smelting metallic sulfide ore.....	2,431,520	2,346,018	62,731	(X)
3251881131	Decomposition of alkylation and other spent acid.....	2,546,640	1,775,299	160,340	(X)
3251881141	Other.....	794,939	556,339	28,443	(X)
	By grade:				
3251881212	Oleum grades.....	1,570,273	1,067,717	51,198	(X)
3251881231	Other than oleum grades.....	39,573,643	10,530,766	560,209	(X)
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(X)
	Total new acid 7/.....	38,597,276	(X)	(X)	(X)
<b>FOURTH QUARTER</b>					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,085,541	b/r/ 1,277,181	c/r/ 283,061	b/ 261,443
3253111121	Fertilizer use.....	a/ 2,794,184	b/r/ 1,179,179	c/r/ 261,674	b/ 211,744
3253111131	Other uses.....	b/r/ 291,357	c/ 98,002	(S)	c/ 49,699
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	a/ 1,754,403	b/ 1,057,147	b/r/ 169,392	a/ 134,495
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	30,021	(X)	(X)	10,201
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 757,391	(X)	(X)	a/ 26,157
3253111221	High density prill and granular.....	a/ 460,225	a/r/ 446,783	a/r/ 71,976	a/ 51,786
3253111226	Low density prill and grained.....	b/ 405,783	b/ 420,472	b/ 69,824	b/ 39,269
3253111231	All other (e.g., liquor sales, etc.).....	b/ 100,983	b/ 75,982	b/ 9,821	7,082
3253111240	Ammonium sulfate (100 percent).....	761,968	a/r/ 773,281	b/r/ 86,422	130,297
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(D)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(D)
Nitrogen solutions, including mixtures					
3253111250	(100 percent N).....	808,710	804,810	193,023	105,545
3253111251	Ammonium nitrate/urea solutions.....	a/ 776,747	a/ 776,952	a/ 188,713	a/ 98,232
3253111256	All other solutions 4/.....	b/ 31,963	b/ 27,858	4,310	7,313
3253111111	Nitric acid (100 percent) 5/.....	b/ 2,041,724	c/r/ 542,998	c/r/ 56,319	(X)
3253114101	Urea original melt liquor.....	a/ 1,618,492	a/ 1,104,222	a/r/ 178,543	133,445
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	627,258	77,811	19,757	(D)

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code			Total production	Total shipments including interplant transfers		Value	Stocks 1/		
				Quantity					
3253114121	Prills.....	a/	198,091	b/r/	185,035	b/r/	39,848	b/	54,046
3253114131	Granular.....	a/	735,993	a/	788,647	a/r/	102,753	a/	65,381
3253114141	All other (liquor sales, melamine, feedstock, other).....		57,150		52,729		16,185		(D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,247,348		1,120,063	r/	309,592		188,071
	By use:								
3253121211	Fertilizer.....	a/	3,003,487		979,262	b/r/	246,125	a/	180,397
3253121222	Feed and other 6/.....	r/	243,861	r/	140,801	r/	63,467		7,674
	By grade:								
3253121311	Ortho (less than 65 percent P2O5).....	a/	2,838,454		732,748	b/	204,224	a/	165,210
3253121321	Super (more than 65 percent P2O5) 6/.....		408,894	r/	387,315	r/	105,368		22,861
3253124100	Superphosphate and other phosphatic fertilizer materials:								
	Gross weight.....		4,934,380	r/	4,851,298	r/	746,523		510,176
	Nitrogen content.....		(X)		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	r/	2,348,064	r/	2,321,588		(X)		(X)
3253124131	Monoammonium phosphates:								
	Gross weight.....	a/r/	1,356,992	a/r/	1,358,711	a/r/	220,721		102,072
	Nitrogen content.....	a/	163,537		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	a/	703,265	a/	716,726		(X)		(X)
3253124211	Diammonium phosphates:								
	Gross weight.....	a/r/	3,096,963	b/r/	3,095,263	b/	458,667		286,334
	Nitrogen content.....	a/	610,232		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	a/r/	1,428,427	a/r/	1,406,707		(X)		(X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:								
	Gross weight.....	a/	480,425	a/	397,324	b/r/	67,135		121,770
	Nitrogen content.....		(X)		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	a/	216,372		198,155		(X)		(X)
3251881100	Sulfuric acid (100 percent): 5/								
	Total gross.....	a/	10,618,163	b/	2,966,588	b/	155,311	a/	397,881
	By feedstock:								
3251881111	Elemental sulfur.....	a/	9,182,954	b/	1,807,494	c/	92,818		(X)
3251881121	Smelting metallic sulfide ore.....		625,348		588,160		15,200		(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/	626,728	a/	431,020	b/	40,262		(D)
3251881141	Other.....	a/	183,133	a/	139,914	b/	7,031		(X)
	By grade:								
3251881212	Oleum grades.....	b/	397,885	b/	256,589	b/	12,452	b/	25,792
3251881231	Other than oleum grades.....	a/	10,220,278	b/	2,709,999	b/	142,859	a/	372,089
3251881311	Spent acid fortified in contact units and included in above production data.....		(D)		(X)		(X)		(D)
	Total new acid 7/.....		9,991,435		(X)		(X)		(X)
<b>THIRD QUARTER</b>									
	Ammonia:								
3253111120	Synthetic, anhydrous (100 percent).....	a/	2,544,050	b/r/	872,215	c/r/	190,211	b/	374,252
3253111121	Fertilizer use.....	a/	2,264,007	b/r/	776,863	c/r/	171,381	b/	320,309
3253111131	Other uses.....	b/r/	280,043	c/	95,352	c/	18,830	c/r/	53,943

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code			Total production	Total shipments including interplant transfers		Stocks 1/
				Quantity	Value	
Ammonium nitrate (100 percent):						
3253111201	Original melt liquor 2/.....	b/	1,477,703	b/	797,914	b/ 133,843 a/ 138,406
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....		21,904		(X)	(X) (D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/	722,832		(X)	a/ 38,349
3253111221	High density prill and granular.....	a/	197,321	a/	194,750	a/r/ 40,406 a/ 33,141
3253111226	Low density prill and grained.....	b/	390,790	c/	403,175	c/ 65,662 c/ 34,004
3253111231	All other (e.g., liquor sales, etc.).....	b/	144,856	b/	87,758	b/ 11,407 (D)
3253111240	Ammonium sulfate (100 percent).....		657,420	b/r/	622,580	b/r/ 72,424 107,325
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....		(D)		(D)	(D) 7,100
3253111246	Byproduct 3/.....		(D)		(D)	(D) 100,225
Nitrogen solutions, including mixtures (100 percent N).....						
3253111250	Ammonium nitrate/urea solutions.....	a/	769,875		742,435	167,253 95,948
3253111251	All other solutions 4/.....	a/	750,175	a/	723,999	a/ 164,567 a/ 88,076
3253111256		b/	19,700	b/	18,436	2,686 7,872
3253111111	Nitric acid (100 percent) 5/.....	b/	1,672,665	c/r/	449,869	b/r/ 46,647 (X)
3253114101	Urea original melt liquor.....	a/	1,551,227	a/	1,039,932	a/r/ 149,572 b/ 160,018
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....		568,022		40,779	7,619 (D)
3253114121	Prills.....	a/	233,446	a/r/	251,688	b/r/ 46,826 b/ 69,042
3253114131	Granular.....	a/	712,433	a/	712,028	b/r/ 82,715 a/ 72,892
3253114141	All other (liquor sales, melamine, feedstock, other).....		37,326		35,437	12,412 (D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,115,925		1,043,564	r/ 298,236 176,915
By use:						
3253121211	Fertilizer.....	a/	2,895,044		908,234	b/r/ 233,742 a/ 163,797
3253121222	Feed and other 6/.....	r/	220,881	r/	135,330	b/r/ 64,494 13,118
By grade:						
3253121311	Ortho (less than 65 percent P2O5).....	a/	2,717,325		672,054	b/ 189,234 a/ 153,081
3253121321	Super (more than 65 percent P2O5) 6/.....		398,600	r/	371,510	r/ 109,002 23,834
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....		4,631,523	r/	4,787,531	r/ 743,901 498,752
	Nitrogen content.....		(X)		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....		2,203,067		2,327,235	(X) (X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	a/	1,325,354	a/	1,433,936	b/ 234,493 110,904
	Nitrogen content.....	a/	141,552		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....	a/	677,226	a/	727,789	(X) (X)
3253124211	Diammonium phosphates:					
	Gross weight.....	a/	2,950,078	b/r/	3,064,316	a/r/ 465,759 295,196
	Nitrogen content.....	a/	530,536		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....	a/	1,380,768	a/	1,458,672	(X) (X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:					

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code		Total production	Total shipments including interplant transfers			Stocks 1/
			Quantity	Value		
	Gross weight.....	356,091		289,279	b/r/ 43,649	92,652
	Nitrogen content.....	(X)		(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 145,073	a/ 140,774		(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/					
	Total gross.....	a/ 10,302,008	b/ 2,999,716	b/ 161,732	a/ 381,608	
	By feedstock:					
3251881111	Elemental sulfur.....	a/ 8,763,100	b/ 1,764,988	c/ 92,893		(X)
3251881121	Smelting metallic sulfide ore.....	616,135	624,375	17,939		(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 717,878	b/ 470,016	b/ 43,659		(D)
3251881141	Other.....	a/ 204,895	a/ 140,337	b/ 7,241		(X)
	By grade:					
3251881212	Oleum grades.....	b/ 398,683	b/ 296,062	b/ 14,765	b/ 27,035	
3251881231	Other than oleum grades.....	a/ 9,903,325	b/ 2,703,654	b/ 146,967	a/ 354,573	
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)	(D)
	Total new acid 7/.....	9,584,130	(X)	(X)	(X)	(X)
<b>SECOND QUARTER</b>						
Ammonia:						
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,014,981	b/r/ 1,234,535	c/r/ 264,866	b/ 319,794	
3253111121	Fertilizer use.....	a/ 2,667,360	b/r/ 1,090,205	c/r/ 236,305	b/ 270,598	
3253111131	Other uses.....	b/r/ 347,621	b/ 144,330	c/ 28,561	c/r/ 49,196	
Ammonium nitrate (100 percent):						
3253111201	Original melt liquor 2/.....	a/ 1,588,941	b/ 997,810	b/ 151,089	a/r/ 142,026	
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	r/ 16,483	(X)	(X)	(D)	
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 708,806	(X)	(X)	a/r/ 35,524	
3253111221	High density prill and granular.....	a/ 331,971	a/ 383,047	a/ 56,824	a/ 33,073	
3253111226	Low density prill and grained.....	b/ 409,794	b/ 382,764	c/ 60,938	b/ 46,862	
3253111231	All other (e.g., liquor sales, etc.).....	b/r/ 121,887	b/r/ 100,991	b/r/ 13,699	(D)	
3253111240	Ammonium sulfate (100 percent).....	736,611	b/r/ 726,078	b/r/ 77,584	102,467	
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	11,154	
3253111246	Byproduct 3/.....	(D)	(D)	(D)	91,313	
Nitrogen solutions, including mixtures						
3253111250	(100 percent N).....	734,700	736,347	162,055	100,051	
3253111251	Ammonium nitrate/urea solutions.....	a/ 712,371	a/ 718,831	a/ 159,453	a/ 90,642	
3253111256	All other solutions 4/.....	b/ 22,329	b/ 17,516	b/ 2,602	9,409	
3253111111	Nitric acid (100 percent) 5/.....	b/ 1,771,120	c/r/ 459,267	b/r/ 49,359	(X)	
3253114101	Urea original melt liquor.....	a/ 1,699,114	a/ 1,209,936	a/r/ 190,214	r/ 201,896	
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	543,956	63,961	16,163	(D)	
3253114121	Prills.....	a/ 321,383	a/r/ 321,412	a/r/ 60,699	(D)	
3253114131	Granular.....	a/ 804,510	a/ 792,439	r/ 99,560	a/ 70,013	
3253114141	All other (liquor sales, melamine, feedstock, other).....	29,265	32,124	13,792	(D)	

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code		Total production	Total shipments including interplant transfers			Stocks 1/
			Quantity		Value	
3253121100	Phosphoric acid (100 percent P2O5).....	3,022,975	1,036,641	r/	293,510	176,977
	By use:					
3253121211	Fertilizer.....	a/ 2,778,997	884,425	b/r/	226,577	a/ 163,025
3253121222	Feed and other 6/.....	r/ 243,978	r/ 152,216	r/	66,933	13,952
	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	a/ 2,640,668	668,576	b/r/	191,708	a/ 158,490
3253121321	Super (more than 65 percent P2O5) 6/.....	382,307	r/ 368,065	r/	101,802	18,487
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,432,268	r/ 4,273,072	r/	665,368	643,523
	Nitrogen content.....	649,594	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,117,380	2,063,690	(X)	(X)	(X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	a/ 1,317,673	a/r/ 1,354,795	b/r/	220,387	167,531
	Nitrogen content.....	a/ 151,967	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 677,090	a/ 688,056	(X)	(X)	(X)
3253124211	Diammonium phosphates:					
	Gross weight.....	a/ 2,706,951	b/r/ 2,511,226	b/r/	386,705	385,755
	Nitrogen content.....	a/ 480,619	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 1,272,696	a/ 1,192,087	(X)	(X)	(X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:					
	Gross weight.....	407,644	407,051	a/r/	58,276	90,237
	Nitrogen content.....	(X)	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 167,594	183,547	(X)	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/ Total gross.....	a/ 10,169,850	b/ 2,847,471	b/	154,757	a/ 432,996
	By feedstock:					
3251881111	Elemental sulfur.....	a/ 8,640,292	b/ 1,681,354	c/	88,866	(X)
3251881121	Smelting metallic sulfide ore.....	592,449	517,989		13,813	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 729,722	a/ 502,005	b/	44,664	(D)
3251881141	Other.....	a/ 207,387	a/ 146,123	b/	7,414	(X)
	By grade:					
3251881212	Oleum grades.....	b/ 358,487	b/ 235,274	b/	11,395	b/ 30,035
3251881231	Other than oleum grades.....	a/ 9,811,363	b/ 2,612,197	b/	143,362	a/ 402,961
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(X)	(D)
	Total new acid 7/.....	9,440,128	(X)	(X)	(X)	(X)
<b>FIRST QUARTER</b>						
	Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 2,685,777	b/ 1,093,205	c/	236,881	b/ 306,990
3253111121	Fertilizer use.....	a/ 2,315,650	b/ 910,214	c/	201,856	(D)
3253111131	Other uses.....	b/r/ 370,127	b/ 182,991	b/	35,025	(D)



Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code			Total production	Total shipments including interplant transfers		Stocks 1/
				Quantity	Value	
Ammonium nitrate (100 percent):						
3253111201	Original melt liquor 2/.....	a/	1,506,816	b/	959,495	b/ 134,148 a/r/ 205,725
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....		23,166		(X)	(X) (D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/	558,461		(X)	a/r/ 48,937
3253111221	High density prill and granular.....		432,920	a/	393,211	a/ 51,846 94,737
3253111226	Low density prill and grained.....	b/	389,683	b/	369,725	b/ 56,926 c/ 36,717
3253111231	All other (e.g., liquor sales, etc.).....	b/	102,586	b/	116,484	b/ 12,895 (D)
3253111240	Ammonium sulfate (100 percent).....		714,718	a/r/	796,882	b/r/ 78,935 128,206
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....		(D)		(D)	(D) 11,667
3253111246	Byproduct 3/.....		(D)		(D)	(D) 116,539
Nitrogen solutions, including mixtures (100 percent N).....						
3253111250	Ammonium nitrate/urea solutions.....	a/	549,794		513,437	117,013 145,561
3253111251	All other solutions 4/.....	b/	528,428	a/	495,911	a/ 114,537 a/ 136,016
3253111256		b/	21,366	b/	17,526	b/ 2,476 9,545
3253111111	Nitric acid (100 percent) 5/.....	b/	1,703,452	c/r/	458,032	b/r/ 49,238 (X)
3253114101	Urea original melt liquor.....	a/	1,505,927	a/	1,121,229	a/r/ 168,024 192,605
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....		425,638		58,113	13,699 (D)
3253114121	Prills.....	a/	333,549		329,288	a/ 57,899 (D)
3253114131	Granular.....	a/	725,833	a/	714,824	r/ 86,581 a/ 64,211
3253114141	All other (liquor sales, melamine, feedstock, other).....		20,907		19,004	9,845 (D)
3253121100	Phosphoric acid (100 percent P2O5).....		3,151,043		1,038,337	r/ 288,126 174,648
By use:						
3253121211	Fertilizer.....	a/	2,950,981		916,281	b/r/ 228,866 a/ 165,800
3253121222	Feed and other 6/.....	r/	200,062	r/	122,056	r/ 59,260 r/ 8,848
By grade:						
3253121311	Ortho (less than 65 percent P2O5).....	a/	2,715,114		680,137	b/r/ 185,982 a/ 150,536
3253121321	Super (more than 65 percent P2O5) 6/.....		435,929	r/	358,200	r/ 102,144 24,112
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....		4,578,084	r/	4,530,557	r/ 671,663 546,165
	Nitrogen content.....		676,477		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....		2,168,796		2,210,683	(X) (X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	a/	1,296,472	a/r/	1,277,847	b/r/ 199,499 173,738
	Nitrogen content.....	a/	149,442		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....	a/	661,080	a/	658,528	(X) (X)
3253124211	Diammonium phosphates:					
	Gross weight.....	a/	2,795,801	b/r/	2,856,266	b/r/ 417,968 a/ 213,242
	Nitrogen content.....	a/	501,483		(X)	(X) (X)
	Phosphoric oxide content (100 percent P2O5).....	a/	1,303,968	a/	1,372,521	(X) (X)
3253124222	Normal, enriched, concentrated, and other ammonium phosphates and other phosphatic fertilizer materials:					

Table 2b. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Related Products: 2003  
 [Quantity in short tons. Value in thousands of dollars]

Product code	Total production	Total shipments including interplant transfers		Stocks 1/	
		Quantity	Value		
	Gross weight.....	485,811	396,444 a/r/	54,196	159,185
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	203,748	179,634	(X)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 10,053,895	b/ 2,784,708	b/ 139,607	a/ 410,319
	By feedstock:				
3251881111	Elemental sulfur.....	a/ 8,784,471	b/ 1,666,991	b/ 85,316	(X)
3251881121	Smelting metallic sulfide ore.....	597,588	615,494	15,779	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 472,312	a/ 372,258	b/ 31,755	(D)
3251881141	Other.....	b/ 199,524	c/ 129,965	(S)	(X)
	By grade:				
3251881212	Oleum grades.....	b/ 415,218	b/ 279,792	c/ 12,586	b/ 22,208
3251881231	Other than oleum grades.....	a/ 9,638,677	b/ 2,504,916	b/ 127,021	a/ 388,111
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)
	Total new acid 7/.....	9,581,583	(X)	(X)	(X)

D Withheld to avoid disclosing data for individual companies. N Nitrogen content. P2O5 Phosphoric oxide content. r/Revised by 5 percent or more from previously published data. S Does not meet publication standards. X Not applicable.

1/Stocks held by producing companies include amounts held at their nonproducing locations.

2/Production represents total amount of ammonium nitrate produced including amounts for fertilizer, explosives, and other uses, and amounts consumed in manufacturing other products, such as nitrogen solutions. Stocks represent total stocks held by producing companies, including stock of original melt liquor and amounts (liquid and solid) reported as fertilizer, explosives, and other uses.

3/Excludes coke oven byproduct ammonium sulfate.

4/Solutions containing two or more products such as (a) ammonia, ammonium nitrate; (b) ammonia, urea; (c) ammonia, ammonium nitrate, urea.

5/Includes data for government-owned, contractor-operated plants.

6/Product code 3253121222 includes product codes 3253121111 and 3253121221, and product code 3253121321 includes product codes 3253121111 and 3253121322.

7/Total new acid equals total gross acid, minus fortified spent acid and sulfuric acid produced from the decomposition of alkylation acids and other spent acids and sludge acid.

Note: Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Quantity of Production, Exports, Imports, and Apparent Consumption of Fertilizer Materials: 2004 and 2003  
 [Quantity in thousands of metric tons]

Product code	Product description	Production	Exports of domestic merchandise 1/	Percent exports to production	Imports for consumption 2/	Apparent consumption 3/	Percent imports to apparent consumption
<b>2004</b>							
3253111120	Ammonia, synthetic anhydrous.....	10,938.9	463.3	4.2	7,177.9	17,653.5	40.7
3253111201	Ammonium nitrate, original solution.....	6,558.5	110.0	1.7	1,056.0	7,504.5	14.1
3253111250	Nitrogen solutions, ammonium nitrate/urea solutions.....	2,960.0	33.3	1.1	2,011.8	4,938.4	40.7
3253111240	Ammonium sulfate.....	2,726.1	717.6	26.3	325.8	2,334.3	14.0
3253114100	Urea.....	5,755.4	704.2	12.2	4,934.7	9,985.9	49.4
3253121100	Phosphoric acid.....	11,514.8	298.8	2.6	108.3	11,324.2	1.0
3253124211	Diammonium phosphates.....	10,088.7	5,040.9	50.0	60.6	5,108.5	1.2
3251881100	Sulfuric acid, gross.....	38,029.4	204.6	0.5	2,400.5	40,225.3	6.0
<b>2003</b>							
3253111120	Ammonia, synthetic anhydrous.....	10,278.9	348.0	3.4	5,410.1	15,341.0	35.3
3253111201	Ammonium nitrate, original solution.....	5,740.6	42.1	0.7	897.2	6,595.7	13.6
3253111250	Nitrogen solutions, ammonium nitrate/urea solutions.....	2,597.4	34.4	1.3	r/ 1,312.8	r/ 3,875.8	r/ 33.9
3253111240	Ammonium sulfate.....	2,604.3	621.7	23.9	r/ 185.9	r/ 2,168.5	r/ 8.6
3253114100	Urea.....	5,783.2	722.6	12.5	3,752.2	8,812.7	42.6
3253121100	Phosphoric acid.....	11,373.8	(D)	(D)	71.4	(D)	(D)
3253124211	Diammonium phosphates.....	10,478.0	4,677.3	44.6	54.8	5,855.4	0.9
3251881100	Sulfuric acid, gross.....	37,325.8	166.8	0.4	718.4	37,877.3	1.9

D Withheld to avoid disclosing data for individual companies. r/Revised by 5 percent or more from previously published data.

1/Source: Census Bureau report EM 545, U.S. Exports.

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

3/Apparent consumption is derived by subtracting exports from manufacturers' production plus imports. Apparent consumption does not include any adjustments for changes in inventories.

Note: For comparison of North American Industry Classification System (NAICS)-based product codes, HTSUSA import codes, and Schedule B export codes, see Table 4.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2004

Product code	Product description	Export code 1/	Import code 2/
3253111120	Anhydrous ammonia, synthetic.....	2814.10.0000	2814.10.0000
3253111201	Ammonium nitrate, original solution.....	3102.30.0000	3102.30.0000
3253111240	Ammonium sulfate.....	3102.21.0000	3102.21.0000
3253111251	Nitrogen solutions, ammonium nitrate/urea solutions.....	3102.80.0000	3102.80.0000
3253114100	Urea.....	3102.10.0000	3102.10.0000
3253121100	Phosphoric acid.....	2809.20.0010 2809.20.0020 2809.20.0030	2809.20.0010 2809.20.0020 2809.20.0030
3253124111	Normal and enriched superphosphates.....	3103.10.0010	3103.10.0010
3253124121	Concentrated superphosphates.....	3103.10.0020	3103.10.0020
3253124211	Diammonium phosphates.....	3105.30.0000	3105.30.0000
3251881100	Sulfuric acid.....	2807.00.0000	2807.00.0000

1/Source: 2004 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Harmonized Tariff Schedule of the United States, Annotated (2004).

# Appendix.

## General CIR Survey Information, Explanation of General Terms and Historical Note

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### GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

### NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

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The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

## FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

## RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

## DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

## DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

## EXPLANATION OF GENERAL TERMS

**Capacity.** The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

**Consumption.** Materials used in producing or processing a product or otherwise removing the product from the inventory.

**Exports.** Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

**Gross shipments.** The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

**Interplant transfers.** Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

**Inventories.** The quantity or value of finished goods, work in progress, and materials on hand.

**Machinery in place.** The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

**Net receipts.** Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

**Production.** The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

**Quantities produced and consumed.** Quantities of each type of product produced by a company for internal consumption within that same company.

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**Quantity and value of new orders.** The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

**Quantity and value of shipments.** The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

**Stocks.** Total quantity of ending finished inventory.

**Unfilled orders (backlog).** Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

#### **HISTORICAL NOTE**

Data on inorganic fertilizer chemicals and sulfuric acid have been collected by the Census Bureau since 1941. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.