

Industrial Gases: First Quarter 2004

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Current Industrial Reports

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

Helping You Make Informed Decisions

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

Table 1. Summary of Production of Principal Gases: 2002 to 2004
 [Million cubic feet, except as noted]

| Quarter and year | Acetylene (3251201) | Gas (3251204011) | Carbon dioxide [short tons] | | Argon high purity (325120D021) | Hydrogen, high and low purity (100 percent) (325120D pt.) | Nitrogen, high and low purity (100 percent) (3251207) | Oxygen, high and low purity (100 percent) (325120A) |
|---------------------|------------------------|---------------------|--------------------------------|-----------------------|--------------------------------------|---|---|---|
| | | | Liquid (3251204021) | Solid (3251204031) | | | | |
| Year-to-date: | | | | | | | | |
| 2004..... | 366 | 1,828,079 | 952,936 | 80,654 | 5,638 | 127,496 | 238,765 | 176,174 |
| 2003..... | 360 | 1,435,750 | 1,210,500 | 82,323 | 5,129 | 114,899 | 230,991 | 163,447 |
| 2002..... | 644 | 1,201,560 | 1,751,793 | 94,959 | 4,447 | 117,654 | 244,616 | 144,778 |
| 2004 | | | | | | | | |
| First quarter..... | 366 | 1,828,079 | 952,936 | 80,654 | 5,638 | 127,496 | 238,765 | 176,174 |
| 2003 | | | | | | | | |
| Total..... | 1,575 | 6,137,473 | 5,654,175 | 367,553 | 21,410 | 503,698 | 942,208 | 687,930 |
| Fourth quarter..... | 420 | 1,678,930 | 1,301,906 | 88,595 | 5,417 | 131,108 | 236,654 | 177,320 |
| Third quarter..... | 395 | 1,604,822 | 1,716,582 | 104,368 | 5,687 | 128,351 | 239,381 | 176,181 |
| Second quarter..... | 400 | 1,417,971 | 1,425,187 | 92,274 | 5,176 | 129,340 | 235,182 | 170,982 |
| First quarter..... | 360 | 1,435,750 | 1,210,500 | 82,316 | 5,129 | 114,899 | 230,991 | 163,447 |
| 2002 | | | | | | | | |
| Total..... | 2,618 | 5,081,134 | 7,007,979 | 416,111 | 18,661 | 478,533 | 918,983 | 605,745 |
| Fourth quarter..... | 655 | 1,400,966 | 1,529,974 | 101,574 | 5,444 | 117,209 | 235,778 | 168,557 |
| Third quarter..... | 663 | 1,216,568 | 1,841,967 | 115,049 | 3,994 | 116,423 | 201,053 | 137,290 |
| Second quarter..... | 656 | 1,262,040 | 1,884,245 | 104,529 | 4,776 | 127,247 | 237,543 | 155,120 |
| First quarter..... | 644 | 1,201,560 | 1,751,793 | 94,959 | 4,447 | 117,654 | 244,609 | 144,778 |

Table 2. Primary Production of Specified Industrial Gases
 [Quantity in million cubic feet, unless otherwise noted. Value in thousands of dollars]

| Product code | Product description | First quarter 2004 | | | | Fourth quarter 2003 | | | |
|--------------|---|--------------------|------------------|--------------------|---|---------------------|------------------|--------------------|---|
| | | Quantity produced | Quantity shipped | Value of shipments | Quantity produced and consumed in plant | Quantity produced | Quantity shipped | Value of shipments | Quantity produced and consumed in plant |
| 3251201 | Acetylene..... | 366 | 300 | 12,707 | (X) | 420 | 359 | 14,390 | (X) |
| 3251201111 | Produced for compression, including cylinder and pipeline..... | (D) | (D) | (D) | (X) | (D) | (D) | (D) | (X) |
| 3251201121 | Produced for pipeline shipment, excluding that shipped to be compressed, and for consumption in same plant..... | (D) | (D) | (D) | - | (D) | (D) | (D) | - |
| 3251204 | Carbon dioxide [short tons]..... | 2,861,669 | 2,605,878 | 108,005 | (D) | 3,069,431 | 3,382,197 | 118,990 | (D) |
| 3251204111 | Gas, including amounts produced and liquefied..... | a/ 1,828,079 | a/ 1,543,151 | c/ 11,950 | (D) | b/ 1,678,930 | b/ 1,512,405 | c/ 12,948 | (D) |
| 3251204121 | Liquid, including amounts produced and used to make dry ice..... | b/ 952,936 | b/ 980,751 | c/ 89,285 | (D) | b/ 1,301,906 | c/ 1,779,726 | (S) | (D) |
| 3251204131 | Solid (dry ice)..... | c/ 80,654 | c/ 81,976 | c/ 6,770 | (D) | c/ 88,595 | c/ 90,066 | c/ 6,846 | (D) |
| 325120D121 | Argon, high purity: Produced for cylinder and bulk delivery and pipeline shipments, and for consumption in same plant..... | b/ 5,638 | c/ 5,721 | c/ 69,460 | (D) | b/ 5,417 | c/ 6,361 | c/ 76,503 | (D) |
| 325120D pt. | Hydrogen..... | 127,496 | 99,767 | 188,309 | 27,382 | 131,108 | 88,888 | 157,563 | 28,791 |
| | Gas produced for: | | | | | | | | |
| 325120D131 | Merchant shipment..... | b/ 177 | c/ 228 | (S) | (X) | b/ 182 | c/ 249 | b/ 1,968 | (X) |
| 325120D141 | Pipeline and onsite use..... | c/ 81,342 | c/ 95,138 | c/ 148,222 | (X) | b/ 85,190 | b/ 84,201 | c/ 119,481 | (X) |
| 325120D151 | Consumption in same plant..... | 41,616 | (X) | (X) | a/ 27,382 | 41,301 | (X) | (X) | 28,791 |
| | Liquid produced for: | | | | | | | | |
| 325120D161 | Merchant shipment..... | (D) | (D) | (D) | (X) | (D) | (D) | (D) | (X) |
| 325120D171 | Other shipments or uses..... | (D) | (D) | (D) | (X) | (D) | (D) | (D) | (X) |
| 3251207 | Nitrogen..... | 238,765 | 222,876 | 625,817 | 1,440 | 236,654 | 221,476 | 819,741 | 2,181 |
| | Gas produced by: | | | | | | | | |
| 3251207111 | Cryogenic onsite and pipeline..... | a/ 148,462 | a/ 146,400 | (S) | (X) | b/ 147,974 | a/ 144,986 | c/ 143,502 | (X) |
| 3251207121 | Noncryogenic processes by industrial gas producing companies, including psa, vpsa, membrane, etc..... | (D) | (D) | (D) | (X) | (D) | (D) | (D) | (X) |
| | Captive uses for consumption in same plant (user owned): | | | | | | | | |
| 3251207131 | Cryogenic processes..... | a/ 756 | (X) | (X) | (D) | r/ 1,463 | (X) | (X) | (D) |
| 3251207141 | Noncryogenic processes, including psa, vpsa, membrane, etc..... | (D) | (X) | (X) | (D) | (D) | (X) | (X) | (D) |
| | Liquid produced for: | | | | | | | | |
| 3251207151 | Merchant shipment..... | c/ 75,019 | b/ 64,058 | c/ 493,909 | (X) | c/ 72,853 | b/ 64,745 | c/ 657,212 | (X) |
| 3251207161 | Consumption in same plant..... | 2,412 | (X) | (X) | (D) | 2,413 | (X) | (X) | (D) |
| 3251207171 | Other shipments or uses..... | a/ 8,672 | (D) | (D) | (X) | a/ 8,902 | (D) | (D) | (X) |
| 325120A | Oxygen..... | 176,174 | 162,136 | 490,137 | (D) | 177,320 | 164,052 | 489,427 | (D) |
| | Gas produced by: | | | | | | | | |
| 325120A111 | Cryogenic onsite and pipeline..... | b/ 130,247 | a/ 118,979 | (S) | (X) | b/ 133,374 | a/ 122,951 | (S) | (X) |
| 325120A121 | Noncryogenic processes by industrial gas producing companies, including psa, vpsa, membrane, etc..... | (D) | (D) | (D) | (X) | (D) | (D) | (D) | (X) |
| | Captive uses for consumption in same plant (user owned): | | | | | | | | |
| 325120A131 | Cryogenic processes..... | (D) | (X) | (X) | (D) | (D) | (X) | (X) | (D) |
| 325120A141 | Noncryogenic processes, including psa, vpsa, membrane, etc..... | (D) | (X) | (X) | (D) | (D) | (X) | (X) | (D) |
| | Liquid produced for: | | | | | | | | |
| 325120A151 | Merchant shipment..... | c/ 29,855 | c/ 29,116 | c/ 64,047 | (X) | c/ 28,499 | c/ 27,586 | c/ 57,437 | (X) |
| 325120A161 | Consumption in this plant..... | (D) | (X) | (X) | (D) | (D) | (X) | (X) | (D) |
| 325120A171 | Other shipments or uses..... | b/ 7,005 | (D) | (D) | (X) | b/ 7,344 | (D) | (D) | (X) |

- Represents zero. 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.

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. Production, Exports, Imports, and Apparent Consumption of Industrial Gases
 [Million cubic meters, unless otherwise noted]

| Product code | Product description | Manufacturers' production | Exports of domestic merchandise 1/ | Percent exports to manufacturers' net production | Imports for consumption 2/ | Apparent consumption 3/ | Percent exports to manufacturers' net production |
|--------------------------------------|--|---------------------------|------------------------------------|--|----------------------------|-------------------------|--|
| First quarter 2004 | | | | | | | |
| 3251204 | Carbon dioxide, gas, liquid, and solid (metric tons) 4/..... | 2,596,063 | 23,189 | 0.9 | 6,692 | 2,579,566 | 0.3 |
| 325120D021 | Argon 5/..... | 160 | 44 | 27.6 | 6 | 122 | 4.9 |
| 325120D031, 041, 051, 061, 071 | Hydrogen 5/..... | 3,610 | 96 | 2.7 | 34 | 3,548 | 1.0 |
| 3251207 | Nitrogen 5/..... | 6,761 | 24 | 0.4 | 1 | 6,738 | - |
| 325120A | Oxygen 5/..... | 4,989 | 22 | 0.4 | 4 | 4,971 | 0.1 |
| Fourth quarter 2003 | | | | | | | |
| 3251204 | Carbon dioxide, gas, liquid, and solid (metric tons) 4/..... | 2,784,542 | 29,038 | 1.0 | 6,605 | 2,762,109 | 0.2 |
| 325120D021 | Argon 5/..... | 153 | 46 | 30.0 | 6 | 113 | 5.3 |
| 325120D031, 041, 051, 061, 071 | Hydrogen 5/..... | 3,713 | 105 | 2.8 | 34 | 3,642 | 0.9 |
| 3251207 | Nitrogen 5/..... | 6,701 | 19 | 0.3 | 2 | 6,684 | - |
| 325120A | Oxygen 5/..... | 5,021 | 22 | 0.4 | 1 | 5,000 | - |

- Represents zero.

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 the total of net production plus imports.

4/A conversion factor of .907185 metric tons per one short ton was used to convert manufacturers' production from short tons to metric tons.

5/A conversion factor of .028317 million cubic meters per one million cubic feet was used to convert manufacturers' production from cubic feet to cubic meters.

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

| Product code | Product description | Export codes 1/ | Import codes 2/ |
|--------------------------------|--|-----------------|-----------------|
| 3251204 | Carbon dioxide (gas, liquid, and solid) (metric tons)..... | 2811.21.0000 | 2811.21.0000 |
| 325120D021 | Argon, high purity..... | 2804.21.2000 | 2804.21.2000 |
| 325120D031, 041, 051, 061, 071 | Hydrogen..... | 2804.10.0000 | 2804.10.0000 |
| 3251207 | Nitrogen..... | 2804.30.0000 | 2804.30.0000 |
| 325120A | Oxygen..... | 2804.40.0000 | 2804.40.0000 |

1/Source: 2004 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 (2004).