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UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
986 NATIONAL CENTER
RESTON, VIRGINIA 20192

TITANIUM METAL

**INDIVIDUAL COMPANY
DATA - PROPRIETARY**

Unless authorization is granted in the section above the signature, the data furnished in this report will be treated in confidence by the Department of the Interior, except that they may be disclosed to Federal defense agencies, or to the Congress upon official request for appropriate purposes. Unless objection is made in writing to the USGS, the information furnished in this report may be disclosed to the respondent's State Geological Survey (or similar State Agency) if the State has appropriate safeguards to prevent disclosing company proprietary data.

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└ (Please correct if name or address has changed.)

**FACSIMILE NUMBER
1-800-543-0661**

Public voluntary reporting burden for this collection of information is estimated to average 30 MINUTES per response. A Federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Comments regarding this collection of information should be directed to: U.S. Geological Survey, Statistics and Information Systems Section, 988 National Center, Reston, VA 20192. **Please do not mail canvass forms to this address.**

Collection of nonfuel minerals information is authorized by Public Law 96-479 and the Defense Production Act. This information is used to support executive policy decisions pertaining to emergency preparedness, national defense, and analyses for minerals legislation and industrial trends. The USGS relies on your voluntary and timely response to assure that its information is complete and accurate.

Please return this form in the enclosed envelope or fax to the above toll-free number **BY THE 15TH OF THE MONTH** following the end of the reporting quarter. If you operate more than one facility, a single report of all your company's active titanium operations during the reporting quarter may be submitted, if you prefer. A facility is defined as a single physical location where titanium operations are conducted; for example, a reduction plant only, a reduction, melting, and mill processing plant, or a mill processing plant only.

SECTION 1. Titanium sponge and powder. (in pounds)

| Type of titanium metal | Code | Production (1) | RECEIPTS | | Consumption (4) | Shipments and adjustments (5) | Ending stocks (6) |
|--------------------------------------|------|----------------|--------------|-------------|-----------------|-------------------------------|-------------------|
| | | | Domestic (2) | Foreign (3) | | | |
| Titanium sponge (99.2% plus Ti)..... | 101 | | | | | | |
| Titanium powder (99.2% plus Ti)..... | 106 | | | | | | |
| Other (specify) | 109 | | | | | | |
| TOTAL | 199 | | | | | | |

SECTION 2. Titanium scrap. (in pounds)

| Type of material | Code | Beginning stocks (1) | RECEIPTS | | Consumption (4) | Shipments and adjustments (5) | Ending stocks (6) |
|--------------------------------------|------|----------------------|----------|---------------|-----------------|-------------------------------|-------------------|
| | | | Home (2) | Purchased (3) | | | |
| TOTAL scrap of all types..... | 201 | | | | | | |

SECTION 3. Titanium ingot. (commercially pure and alloy grades) (in pounds)

| Titanium ingots | Code | Production (1) | Receipts (2) | Consumption in the manufacture of mill shapes and castings (3) | SHIPMENTS | | Ending stocks (6) |
|--|------|----------------|--------------|--|--------------|------------|-------------------|
| | | | | | Domestic (4) | Export (5) | |
| From primary metal..... | 301 | | | | | | |
| From titanium scrap..... | 302 | | | | | | |
| From primary metal and titanium scrap..... | 303 | | | | | | |
| TOTAL | 399 | | | | | | |

SECTION 4. Titanium mill and foundry products. (commercially pure and alloy grades) (in pounds)

| Type of product | Code | Production (1) | Receipts (2) | CONSUMPTION IN THE MANUFACTURE OF: | | Shipments (5) | Ending stocks (6) |
|-------------------------------------|------|-------------------|-----------------|---------------------------------------|-------------------------------|------------------|-------------------------|
| | | | | Mill shapes (3) | Fabricated products (4) | | |
| Mill products: | | | | | | | |
| Sheet and strip..... | 410 | | | | | | |
| Plate..... | 411 | | | | | | |
| Forging and extrusion billet..... | 413 | | | | | | |
| Rod and bar..... | 418 | | | | | | |
| Fastener stock and wire..... | 419 | | | | | | |
| Extrusions (other than tubing)..... | 424 | | | | | | |
| Pipe and tubing..... | 425 | | | | | | |
| Other (specify)..... | 426 | | | | | | |
| TOTAL | 429 | | | | | | |
| Castings..... | 430 | | | | | | |
| Powder metal products..... | 431 | | | | | | |

SECTION 5. Priorities of titanium mill products and castings production. (in pounds)

| Type of order | Code | PRODUCTION | |
|----------------------------|------|----------------------|-----------------|
| | | Mill products (1) | Castings (2) |
| Rated orders: | | | |
| Aerospace, military..... | 530 | | |
| Tank - automotive..... | 532 | | |
| Ships..... | 534 | | |
| Other..... | 535 | | |
| SUBTOTAL | 537 | | |
| Unrated orders: | | | |
| Aerospace, commercial..... | 550 | | |
| Industrial..... | 552 | | |
| Consumer goods..... | 554 | | |
| Medical..... | 556 | | |
| Other..... | 558 | | |
| SUBTOTAL | 559 | | |
| TOTAL | 599 | | |

Remarks:

| | | | | | | | |
|--|-----|--------|----------------|------|-----|-------|----------|
| Name of person to be contacted regarding this report | | | Tel. area code | | No. | | Ext. |
| Address | No. | Street | | City | | State | ZIP Code |

May tabulations be published which could indirectly reveal the data reported above? (1) Yes (2) No

| | | | | | |
|-----------|--|-------|--|------|--|
| Signature | | Title | | Date | |
|-----------|--|-------|--|------|--|

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GENERAL INSTRUCTIONS

If you do not have exact data, please enter your best estimates and mark with an /e. Use zero (0) when appropriate. Do not report decimals or fractions. Round to the nearest whole number. If you have nothing to report, please sign and return the form. Please use the space for "Remarks" to provide any specific information that will help us in the use or interpretation of the data. Any statement on the effect of changes in economic conditions upon the reporting establishment will be useful. Additional forms are available upon request.

The information requested on this form is the same as that previously collected on Department of Commerce form ITA-991 and summarized in the Bureau of the Census Current Industrial Reports titled: "Titanium Mill Products, Ingot, and Castings."

The U.S. Geological Survey will publish industry totals from this canvass (G37) in its Mineral Industry Survey (MIS) quarterly report on titanium. If you have any questions concerning completion of this form or require copies of the MIS quarterly report, please contact the Mineral Commodities Data Unit, U.S. Geological Survey, 985 National Center, Reston, VA 20192, Telephone (703) 648-7960.

SPECIFIC INSTRUCTIONS

This inquiry is designed to obtain information from all establishments engaged in the production of titanium metal, including those which purchase and melt scrap; manufacturers of titanium ingot, mill products, forgings, castings, and powdered mill products; and consumers of ingot, sponge, scrap and billet.

A separate report may be sent for each of your company's titanium operations. However, if it will facilitate reporting, this report may be submitted on a company or division basis.

SECTION 1. Titanium sponge and powder.

- Column 1. Production.**
Producers should report in pounds the weight of titanium metal listed in CODES 101-199.
- Columns 2-3. Receipts.**
Report titanium metal received during the reporting period from both domestic and foreign sources. For the purposes of this report, sponge received under toll arrangements shall be considered part of the converter's inventory.
- Column 4. Consumption.**
Report the weight of titanium metal consumed at the same location in the manufacture of titanium ingot, castings or powder metal products. If consumption is in the manufacture of titanium ingot, report production in SECTION 3, CODES 301 or 303. If consumption is in the manufacture of castings or powdered metal products, report production in SECTION 4, CODES 430 or 431.
- Column 5. Shipments and adjustments.**
Report in pounds the weight of titanium metal physically shipped and adjustments made to shipments to all customers during the reporting period. Include shipments within your company for further production.
- Column 6. Ending stocks.**
Report your ending stocks in titanium metal, in pounds, at the end of the reporting period. Reports should be uniform in coverage from reporting period to reporting period. Stocks on hand at the end of the current reporting period should EQUAL stocks on hand at the beginning of the reporting period PLUS production and receipts for the current reporting period MINUS consumption, shipments, and adjustments.

SECTION 2. Titanium scrap.

Include all types of titanium scrap, such as ingot and billet butts, bar ends, turnings, clippings, scrap castings and forgings, etc.

- Column 1. Beginning stocks.**
Producers should report in pounds the weight of products in CODE 201.
- Columns 2-3. Receipts.**
Report receipts of all scrap, including home receipts and purchased scrap. Home receipts of scrap are generated by plants making end products of titanium ingot and mill products. Report metal physically received, including metal received under toll arrangements in COLUMN 3, ("Purchased"). The responsibility for reporting belongs to the converter of the material. For the purposes of this report, metal received under toll arrangements shall be considered part of the converter's inventory.
- Column 4. Consumption.**
Report the weight of metal consumed at the same location in the manufacture of finished ingot or castings, including material consumed under toll arrangements. If you report in this column, fill out the appropriate information in SECTION 3, COLUMN 1 (Production), CODE 302 or 303, or SECTION 4, COLUMN 1, CODE 430.
- Column 5. Shipments and adjustments.**
Report in pounds the weight of scrap physically shipped and adjustments made to shipments to all customers. For purposes of this report, this column shall include material shipped to other companies for toll conversion.
- Column 6. Ending stocks.**
Report your ending stocks, in pounds, at the end of the reporting period. Reports should be uniform in coverage from reporting period to reporting period. Stocks on hand at the end of the current reporting period should EQUAL stocks on hand at the beginning of the reporting period PLUS receipts for the current reporting period, MINUS consumption, shipments and adjustments.

SPECIFIC INSTRUCTIONS *(continued)*

SECTION 3. Titanium ingot. *(Include direct casting of extrusion billet, slab, and other similar products.)*

- Column 1. Production.**
Producers should report in pounds the weight of titanium ingot listed in CODES 301-399, including ingot produced at your facility under toll arrangements.
- Column 2. Receipts.**
Report titanium ingot received during the reporting period. For purposes of this report, ingot received under toll arrangements shall be considered part of the converter's inventory.
- Column 3. Consumption.**
Report the weight of titanium ingot consumed at the same location in the manufacture of mill products and castings. If consumption is in the manufacture of mill products, report production of mill products in SECTION 4, COLUMN 1, CODES 410-426. If consumption is in the manufacture of castings, report production of castings in SECTION 4, COLUMN 1, CODE 430.
- Columns 4-5. Shipments.**
Report in pounds the weight of titanium ingot shipped during the reporting period, including material produced at your facility under toll arrangements. Report domestic shipments in COLUMN 4 and export shipments in COLUMN 5. In addition, this column shall include material owned by you shipped to other companies for toll conversion.
- Column 6. Ending stocks.**
Report your ending stocks of ingot, in pounds, at the end of the reporting period. Reports should be uniform in coverage from reporting period to reporting period. Stocks on hand at the end of the current reporting period should EQUAL stocks on hand at the beginning of the reporting period PLUS production and receipts for the current reporting period MINUS consumption, shipments and adjustments.

SECTION 4. Titanium mill and foundry products.

- Column 1. Production.**
Producers should report in pounds the weight of titanium mill and foundry products in CODES 410-431. Report all production resulting from consumption of titanium metal and ingot listed in SECTION 1, COLUMN 4, SECTION 2, COLUMN 4, and SECTION 4, COLUMN 3.
- Column 2. Receipts.**
Report titanium mill products received during the reporting period. For purposes of this report, metal received under toll arrangements shall be considered part of the converter's inventory.
- Column 3. Consumption in the manufacture of mill shapes.**
Report consumption in the manufacture of other mill products. If you report consumption in the manufacture of mill shapes for one mill product then production should be reported for another mill product or casting.
- Column 4. Consumption in the manufacture of fabricated products.**
If titanium ingot is received by a forging company and processed directly into forgings, the forging billet equivalent should be reported as produced in SECTION 4, COLUMN 1 and consumed in COLUMN 4.
- Column 5. Shipments.**
Report in pounds the weight of titanium mill and foundry products shipped during the reporting period, including material produced at your facility under toll arrangements. In addition, this column shall include material owned by you shipped to other companies for toll conversion.
- Column 6. Ending stocks.**
Report all stocks of mill products and/or castings held at the end of the reporting period. Reports should be uniform in coverage from reporting period to reporting period. Stocks on hand at the end of the current reporting period should EQUAL stocks on hand at the beginning of the reporting period PLUS production and receipts for the current reporting period MINUS consumption, shipments and adjustments.

SECTION 5. Priorities of titanium mill products and castings production.

A rated order is a purchase order for materials, equipment, or services to be used in an authorized program for national defense or energy. The order may be placed by a government agency or by a private company. The order must contain a rating symbol, i.e. "DO-A1," a specific required delivery schedule, and must be properly certified and signed in accordance with the Department of Commerce Defense Priorities and Allocations System (DPAS) regulation (15 CFR 315).

- Column 1. Mill products.**
Report the production of mill products in COLUMN 1 according to rated and/or unrated orders. The total rated and unrated orders reported under CODE 599 should EQUAL the total mill products production in SECTION 4, COLUMN 1, CODE 429.
- Column 2. Castings.**
Report the production of castings in COLUMN 2 according to rated and/or unrated orders. The total rated and unrated orders reported under CODE 599 should EQUAL the total castings production in SECTION 4, COLUMN 1, CODE 430.