

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. )

Minerals Technologies Inc.  
(Name of Issuer)

Common Stock, par value \$.10  
(Title of Class of Securities)

603158106  
(CUSIP Number)

December 31, 2003  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

☒ Rule 13d-1(b) ☐ Rule 13d-1(c) ☐ Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (entities only)  
  
Franklin Resources, Inc. (13-2670991)

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,432,637

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

7.0%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

1. NAME OF REPORTING PERSON

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (entities only)

Charles B. Johnson

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,432,637

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

7.0%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

1. NAME OF REPORTING PERSON

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (entities only)

Rupert H. Johnson, Jr.

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) (b) X

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

(See Item 4)

6. SHARED VOTING POWER

0

7. SOLE DISPOSITIVE POWER

(See Item 4)

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,432,637

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES [ ]

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

7.0%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

Item 1.

(a) Name of Issuer:

Minerals Technologies Inc.

(b) Address of Issuer's Principal Executive Offices:

The Chrysler Building  
405 Lexington Avenue  
New York, NY 10174

Item 2.

(a) Name of Person Filing:

(i): Franklin Resources, Inc.  
(ii): Charles B. Johnson  
(iii): Rupert H. Johnson, Jr.

(b) Address of Principal Business Office:

(i), (ii), and (iii):

One Franklin Parkway  
San Mateo, CA 94403-1906

(c) Place of Organization or Citizenship:

(i): Delaware  
(ii) and (iii): USA

(d) Title of Class of Securities:

Common Stock, par value \$.10

(e) CUSIP Number:

603158106

Item 3. This statement is filed pursuant to Rule 13d-1(b) or 13d-2 and the persons filing are: Franklin Resources, Inc., a parent holding company in accordance with Section 240.13d-1(b)1(ii)(G); Charles B. Johnson, a control person in accordance with Section 240.13d-1(b)1(ii)(G); and Rupert H. Johnson, Jr., a control person in accordance with Section 240.13d-1(b)1(ii)(G). (Note: See Item 4)

Item 4. Ownership

The securities reported on herein are beneficially owned by one or more open or closed-end investment companies or other managed accounts which are advised by direct and indirect investment advisory subsidiaries (the "Adviser Subsidiaries") of Franklin Resources, Inc. ("FRI"). Such advisory contracts grant to such Adviser Subsidiaries all investment and/or voting power over the securities owned by such advisory clients. Therefore, such Adviser Subsidiaries may be deemed to be, for purposes of Rule 13d-3 under the Securities Exchange Act of 1934, the beneficial owner of the securities covered by this statement.

Beneficial ownership by investment advisory subsidiaries and other affiliates of FRI is being reported in conformity with the guidelines articulated by the SEC staff in Release No. 34-39538 (January 12, 1998) relating to organizations, such as FRI, where related entities exercise voting and investment powers over the securities being reported independently from each other. The voting and investment powers held by Franklin Mutual Advisers, LLC ("FMA"), formerly Franklin Mutual Advisers, Inc., an indirect wholly owned investment advisory subsidiary of FRI, are exercised independently from FRI and from all other investment advisor subsidiaries of FRI (FRI, its affiliates and investment advisor subsidiaries other than FMA are collectively referred to herein as "FRI affiliates"). Furthermore, FMA and FRI internal policies and procedures establish informational barriers that prevent the flow between FMA and the FRI affiliates of information that relates to the voting and investment powers over the securities owned by their respective advisory clients. Consequently, FMA and the FRI affiliates are each reporting the securities over which they hold investment and voting power separately from each other.

Charles B. Johnson and Rupert H. Johnson, Jr. (the "Principal Shareholders") each own in excess of 10% of the outstanding Common Stock of FRI and are the principal shareholders of FRI. FRI and the Principal Shareholders may be deemed to be, for purposes of Rule 13d-3 under the 1934 Act, the beneficial owner of securities held by persons and entities advised by FRI subsidiaries. FRI, the Principal Shareholders and each of the Adviser Subsidiaries disclaim any economic interest or beneficial ownership in any of the securities covered by this statement.

FRI, the Principal Shareholders, and each of the Adviser Subsidiaries are of the view that they are not acting as a "group" for purposes of Section 13(d) under the 1934 Act and that they are not otherwise required to attribute to each other the "beneficial ownership" of securities held by any of them or by any persons or entities advised by FRI subsidiaries.

(a) Amount Beneficially Owned:

1,432,637

(b) Percent of Class:

7.0%

(c) Number of Shares as to which such person has:

(i) Sole power to vote or to direct the vote

Franklin Resources, Inc.:	0
Charles B. Johnson:	0
Rupert H. Johnson, Jr.:	0
Franklin Advisers, Inc.:	889,900
Fiduciary Trust Company International:	317,700
Franklin Private Client Group, Inc./1/:	225,037

(ii) Shared power to vote or to direct the vote:

0

(iii) Sole power to dispose or to direct the disposition of

Franklin Resources, Inc.:	0
Charles B. Johnson:	0
Rupert H. Johnson, Jr.:	0
Franklin Advisers, Inc.:	889,900
Fiduciary Trust Company International:	317,700
Franklin Private Client Group, Inc.:	225,037

(iv) Shared power to dispose or to direct the disposition of:

0

Item 5. Ownership of Five Percent or Less of a Class If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [ ].

Not Applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person

The clients of the Adviser Subsidiaries, including investment companies registered under the Investment Company Act of 1940 and other managed accounts, have the right to receive dividends from as well as the proceeds from the sale of such securities reported on in this statement.

/1/ Franklin Private Client Group, Inc. (FPCG) and Templeton Private Client Group, a division of Templeton/Franklin Investment Services, Inc. (TPCG), may hold some or all of such shares under various "wrap fee" investment management arrangements. Under these arrangements, the underlying clients may, from time to time, either retain, delegate to FPCG or TPCG entirely, or delegate on a client-by-client basis, the power to vote the shares beneficially held by FPCG or TPCG. To the extent any underlying clients retain voting power of any shares, FPCG and TPCG disclaim sole power to vote or direct the vote for such shares.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Franklin Advisers, Inc.	3(e)
Fiduciary Trust Company International	3(b)
Franklin Private Client Group, Inc.	3(e)

(See also Item 4)

Item 8. Identification and Classification of Members of the Group

Not Applicable (See also Item 4)

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

By signing below, we certify that, to the best of our knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purposes or effect.

This report shall not be construed as an admission by the persons filing the report that they are the beneficial owner of any securities covered by this report.

After reasonable inquiry and to the best of our knowledge and belief, we certify that the information set forth in this statement is true, complete and correct.

Dated: February 6, 2004

Franklin Resources, Inc.  
Charles B. Johnson  
Rupert H. Johnson, Jr.

By: /s/BARBARA J. GREEN

-----  
Barbara J. Green  
Vice President, Deputy General Counsel,  
and Secretary, Franklin Resources, Inc.

Attorney in Fact for Charles B. Johnson pursuant to Power of Attorney  
attached to this Schedule 13G

Attorney in Fact for Rupert H. Johnson, Jr. pursuant to Power of Attorney  
attached to this Schedule 13G

#### JOINT FILING AGREEMENT

In accordance with Rule 13d-1 (f)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agrees to the joint filing with each other of the attached statement on Schedule 13G and to all amendments to such statement and that such statement and all amendments to such statement is made on behalf of each of them.

IN WITNESS WHEREOF, the undersigned hereby execute this agreement on February 6, 2004.

Franklin Resources, Inc.  
Charles B. Johnson  
Rupert H. Johnson, Jr.

By: /s/BARBARA J. GREEN

-----  
Barbara J. Green  
Vice President, Deputy General Counsel,  
and Secretary, Franklin Resources, Inc.

Attorney in Fact for Charles B. Johnson pursuant to Power of Attorney  
attached to this Schedule 13G

Attorney in Fact for Rupert H. Johnson, Jr. pursuant to Power of Attorney  
attached to this Schedule 13G

POWER OF ATTORNEY

CHARLES B. JOHNSON hereby appoints BARBARA J. GREEN his true and lawful attorney-in-fact and agent to execute and file with the Securities and Exchange Commission any Schedule 13G, any amendments thereto or any related documentation which may be required to be filed in his individual capacity as a result of his position as an officer, director or shareholder of Franklin Resources, Inc. and, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing which he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, may lawfully do or cause to be done by virtue hereof.

/s/CHARLES B. JOHNSON

-----

POWER OF ATTORNEY

RUPERT H. JOHNSON, JR. hereby appoints BARBARA J. GREEN his true and lawful attorney-in-fact and agent to execute and file with the Securities and Exchange Commission any Schedule 13G, any amendments thereto or any related documentation which may be required to be filed in his individual capacity as a result of his position as an officer, director or shareholder of Franklin Resources, Inc. and, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing which he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, may lawfully do or cause to be done by virtue hereof.

/s/RUPERT H. JOHNSON, JR.

-----