| GSI GROUP INC |
|--------------------|
| Form SC 13G/A |
| February 09, 2006 |
| CUSIP NO.36229U102 |

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| UNITED STATES |
|---|
| SECURITIES AND EXCHANGE COMMISSION |
| Washington, D.C. 20549 |
| SCHEDULE 13G |
| Under the Securities Exchange Act of 1934 |
| (Amendment No. 4)* |
| |
| GSI Group Inc. |
| (Name of Issuer) |
| |
| Common Stock, no par value |
| (Title of Class of Securities) |
| |
| 36229U102 |
| (CUSIP Number) |
| |
| December 31, 2005 |
| (Date of Event Which Requires Filing of this Statement) |
| |
| Check the appropriate box to designate the rule pursuant to which this Schedule is filed: |

| X Rule 13d-1(b) | | | |
|-----------------|--|--|--|
| o Rule 13d-1(c) | | | |
| o 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).

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NAMES OF REPORTING PERSONS. 1. I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY). Franklin Resources, Inc. (13-2670991) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP 2. (a) (b) X 3. SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4. 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)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
4,465,843

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

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

10.7%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

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|---------------------------|---------------|-------------------------------------|-------------------------------|
| 1. | | ORTING PERSONS. ATION NOS. OF AI | BOVE PERSONS (ENTITIES ONLY). |
| | | Charles B. Johnson | n |
| 2. | CHECK ? | ΓΗΕ APPROPRIATI | E BOX IF A MEMBER OF A GROUP |
| | (b) | (a) | X |
| 3. | | SEC USE ONLY | |
| 4. | | CITIZENSHIP OR | PLACE OF ORGANIZATION |
| | | USA | |
| NUMBER OF SHARES BENEFICE | ALLY OWNED BY | ZEACH REPORTIN | G PERSON WITH: |
| | 5. | | SOLE VOTING POWER |
| | | (See Item 4) | |
| | 6. | | SHARED VOTING POWER |

0

7.

SOLE DISPOSITIVE POWER

(See Item 4)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
4,465,843

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

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

10.7%

12. TYPE OF REPORTING PERSON

HC (See Item 4)

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| | AMES OF REPORT | | OVE PERSONS (ENTITIES ONLY). |
|------------------------------|----------------|-------------------|------------------------------|
| | R | upert H. Johnson, | Jr. |
| 2. | СНЕСК ТНЕ | : APPROPRIATE | BOX IF A MEMBER OF A GROUP |
| (t | (٤ | a) | X |
| 3. | S | EC USE ONLY | |
| 4. | CI | TIZENSHIP OR 1 | PLACE OF ORGANIZATION |
| | U | ISA | |
| NUMBER OF SHARES BENEFICIALL | LY OWNED BY EA | CH REPORTING | G PERSON WITH: |
| 5. | | | SOLE VOTING POWER |
| | (5 | See Item 4) | |
| 6. | | | SHARED VOTING POWER |
| | 0 | | |
| 7. | | | SOLE DISPOSITIVE POWER |
| | (5 | See Item 4) | |

8. SHARED DISPOSITIVE POWER

0

| 9. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON |
|-----|--|
| | 4,465,843 |
| 10. | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES o |
| 11. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) |
| | 10.7% |
| 12. | TYPE OF REPORTING PERSON |
| | HC (See Item 4) |

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CUSIP NO.36229U102

| CCSH 1.0.5022/C102 | 150 | | |
|---------------------------|---------------|--------------------|---|
| 1. | | | . BOVE PERSONS (ENTITIES ONLY). ment Counsel, LLC |
| 2. | СНЕСК Т | THE APPROPRIAT | E BOX IF A MEMBER OF A GROUP |
| | (b) | (a) | X |
| 3. | | SEC USE ONLY | |
| 4. | | CITIZENSHIP OR | R PLACE OF ORGANIZATION |
| | | Delaware | |
| NUMBER OF SHARES BENEFICE | ALLY OWNED BY | EACH REPORTIN | IG PERSON WITH: |
| | | | |
| | 5. | | SOLE VOTING POWER |
| | | 2,790,278 (See Ite | em 4) |
| | 6. | | SHARED VOTING POWER |
| | | 0 | |
| | 7. | | SOLE DISPOSITIVE POWER |

2,790,278 (See Item 4)

| | 8. | SHARED DISPOSITIVE POWER |
|-----|-----------------------------------|--------------------------------------|
| | 0 | |
| 9. | AGGREGATE AMOUNT BENEFICIAL | LLY OWNED BY EACH REPORTING PERSON |
| | 2,790,2 | 278 |
| 10. | CHECK IF THE AG CERTAIN SHARES | GREGATE AMOUNT IN ROW (9) EXCLUDES o |
| 11. | PERCENT OF CLA | ASS REPRESENTED BY AMOUNT IN ROW (9) |
| | 6.7% | |
| 12. | ТҮРЕ (| OF REPORTING PERSON |
| | IA | |

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| Item 1. | |
|--|--|
| (a) Name of Issuer | |
| | |
| | GSI Group Inc. |
| (b) Address of Issuer's Principal Executive Offices | |
| | |
| | 39 Manning Road Billerica, MA 01821 |
| Item 2. (a) Name of Person Filing | |
| (i): | Franklin Resources, Inc. |
| | (ii): Charles B. Johnson(iii): Rupert H. Johnson, Jr.(iv): Templeton Investment Counsel, LLC |
| (b) Address of Principal Business Office or, if None, Residual | dence |
| | |
| | (i), (ii), and (iii): One Franklin Parkway San Mateo, CA 94403-1906 |
| | |
| | (iv): 500 E. Broward Blvd., Suite 2100 Ft. Lauderdale, FL 33394 |
| (c) Citizenship | |
| | |
| | (i): Delaware |

(ii) and (iii): USA

(iv): Delaware

| (d) Title of Class of Securities | |
|----------------------------------|----------------------------|
| | Common Stock, no par value |
| (e) CUSIP Number | |

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Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) o Broker or dealer registered under section 15 of the Act (15 U.S.C. 780).
- (b) o Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) o Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) o Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e) x An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) o An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) x A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) o A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) o A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) o Group, in accordance with §240.13d-1 (b)(1)(ii)(J).

Item 4. Ownership

The securities reported herein (the Securities) are beneficially owned by one or more open or closed-end investment companies or other managed accounts that are investment advisory clients of investment advisers that are direct and indirect subsidiaries (each, an Adviser Subsidiary and, collectively, the Adviser Subsidiaries) of Franklin Resources, Inc. (FRI), including the Adviser Subsidiaries listed in Item 7. Advisory contracts grant to the Adviser Subsidiaries all investment and/or voting power over the securities owned by such advisory clients, unless otherwise noted in this Item 4. Therefore, for purposes of Rule 13d-3 under the Act, the Adviser Subsidiaries may be deemed to be the beneficial owners of the Securities.

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), an indirect wholly-owned Adviser Subsidiary, are exercised independently from FRI and from all other Adviser Subsidiaries (FRI, its affiliates and the Adviser Subsidiaries other than FMA are collectively, FRI affiliates). Furthermore, internal policies and procedures of FMA and FRI 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 report the securities over which they hold investment and voting power separately from each other for purposes of Section 13 of the Act.

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 stockholders of FRI. FRI and the Principal Shareholders may be deemed to be, for purposes of Rule 13d-3 under the Act, the beneficial owners of securities held by persons and entities advised by FRI subsidiaries. The number of shares that may be deemed to be beneficially owned and the percentage of the class of which such shares are a part are reported in Items 9 and 11 of the cover pages for FRI and each of the Principal Shareholders. FRI, the Principal Shareholders and each of the Adviser Subsidiaries disclaim any pecuniary interest in any of the Securities. In addition, the filing of this Schedule 13G on behalf of the Principal Shareholders, FRI and FRI affiliates, as applicable, should not be construed as an admission that any of them

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is, and each disclaims that it is, the beneficial owner, as defined in Rule 13d-3, of any of the Securities.

FRI, the Principal Shareholders, and each of the Adviser Subsidiaries believe that they are not a group within the meaning of Rule 13d-5 under the Act and that they are not otherwise required to attribute to each other the beneficial ownership of the Securities held by any of them or by any persons or entities advised by FRI subsidiaries.

(a) Amount beneficially owned:

4,465,843

(b) Percent of class:

10.7%

- (c) Number of shares as to which the 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

Templeton Investment Counsel, LLC: 2,790,278
Franklin Templeton Investments Corp.: 942,950
Franklin Advisers, Inc.: 416,230
Franklin Templeton Investment Management Limited: 299,700
Franklin Templeton Investments Australia Limited: 16,685

(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 |

Templeton Investment Counsel, LLC: 2,790,278
Franklin Templeton Investments Corp.: 942,950
Franklin Advisers, Inc.: 416,230
Franklin Templeton Investment Management Limited: 299,700
Franklin Templeton Investments Australia Limited: 16,685

(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

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accounts, have the right to receive or power to direct the receipt of dividends from, as well as the proceeds from the sale of, such securities reported on in this statement. Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company See Attached Exhibit C (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

CUSIP NO.36229U102 13G PAGE 10 OF 14 Item 10. Certification By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose 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. **SIGNATURE** After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct. Dated: February 5, 2006 Franklin Resources, Inc. Charles B. Johnson Rupert H. Johnson, Jr. Templeton Investment Counsel, LLC

By: /s/BARBARA J. GREEN

Barbara J. Green Vice President, Deputy General Counsel, and Secretary of 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

Secretary of Templeton Investment Counsel, LLC

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|---|-------------------------|--|
| EXHIBIT A | | |
| JOINT FILING AGREEMENT | | |
| agree to the joint filing with each other | er of the attached stat | change Act of 1934, as amended, the undersigned hereby tement on Schedule 13G and to all amendments to such such statement are made on behalf of each of them. |
| IN WITNESS WHEREOF, the under | signed have executed | I this agreement on |
| February 5, 2006. | | |
| Franklin Resources, Inc. | | |
| Charles B. Johnson | | |
| Rupert H. Johnson, Jr. | | |
| Templeton Investment Counsel, LLC | | |
| | | |
| By: /s/BARBARA J. GREEN | | |
| | | Barbara J. Green Vice President, Deputy General Counsel, and Secretary of Franklin Resources, Inc. |
| Attorney-in-Fact for Charles B. Johns | on pursuant to Powe | r of Attorney attached to this Schedule 13G |
| Attorney-in-Fact for Rupert H. Johnson | on, Jr. pursuant to Po | ower of Attorney attached to this Schedule 13G |

Secretary of Templeton Investment Counsel, LLC

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|---|--|--|
| EXHIBIT B | | |
| POWER OF ATTORNEY | | |
| execute and file with the Securities any related documentation which officer, director or shareholder of power and authority to do and per | es and Exchange Commay be required to be Franklin Resources, I form each and every | J. GREEN his true and lawful attorney-in-fact and agent to emission any Schedule 13G or 13D, any amendments thereto or efiled in his individual capacity as a result of his position as ar fine. and, granting unto said attorney-in-fact and agent, full act and thing which he might or could do in person, hereby and agent, may lawfully do or cause to be done by virtue hereof |
| Date: 9-11-03 | | /s/Charles B. Johnson |
| Charles B. Johnson | | |
| POWER OF ATTORNEY | | |
| execute and file with the Securities any related documentation which officer, director or shareholder of power and authority to do and per | es and Exchange Commay be required to be Franklin Resources, I form each and every | G. GREEN his true and lawful attorney-in-fact and agent to emission any Schedule 13G or 13D, any amendments thereto or efiled in his individual capacity as a result of his position as article, and, granting unto said attorney-in-fact and agent, full act and thing which he might or could do in person, hereby and agent, may lawfully do or cause to be done by virtue hereof |
| Date: Sept 4, 2003 | | /s/Rupert H. Johnson, Jr. Rupert H. Johnson |
| | | |

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Exhibit C

Templeton Investment Counsel, LLC Item 3 classification: 3(e)
Franklin Templeton Investments Corp. Item 3 Classification: 3(e)
Franklin Advisers, Inc. Item 3 Classification: 3(e)
Franklin Templeton Investment Management

Limited Item 3 Classification: 3(e)

Franklin Templeton Investments Australia

Limited Item 3 Classification: 3(e)