## FORM 4

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

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response       | 0.5       |  |  |  |  |  |  |  |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(h)

#### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Instruc  | tion 1(b).                                |                                     |         |   | 1  | 1110              | Sumon   | Con                 | ipany   | 1101  | 01 174     | .0  |  |  |  |                                      |  |   |                          |
|--|---|-------------------------------------|---------|---|--|-------------------|---|---------------------|---|-------|------------|---|--|--|--|--------------------------------------|--|---|--------------------------|
| (Print or Typ  | e Responses                               | (3)                                 |         |   |  |                   |   |                     |   |       |            |   |  |  |  |                                      |  |   |                          |
| 1. Name and Address of Reporting Person * KELKER NORMAN E                |   |                                     |         |   | 2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ] |                   |   |                     |   |       |            | 5.  | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner |  |  |                                      |  |   |                          |
| (Last) (First) (Middle)<br>C/O ENZO BIOCHEM, INC., 527 MADISON<br>AVENUE |   |                                     |         | 3. Date of Earliest Transaction (Month/Day/Year) 05/26/2005 |  |                   |   |                     |   |       |            | X Officer (give title below) Other (specify below) Senior Vice President  |  |  |  |                                      |  |   |                          |
| (Street)   |   |                                     |         | 4. If Amendment, Date Original Filed(Month/Day/Year)        |  |                   |   |                     |   |       | 6.<br>_X   | 6. Individual or Joint/Group Filing(Check Applicable Line) _X_Form filed by One Reporting Person Form filed by More than One Reporting Person |  |  |  |                                      |  |   |                          |
|  | ORK, NY 1                                 |                                     |         | (7: )   |  |                   |   |                     |   |       |            |   |  |  |  |                                      | .,   |   |                          |
| (City  |   | (State)                             |         | (Zip)   | _  |                   |   | Tabl                | e I - No  | on-De | erivativ   | e Securities  | s Acquire  | d, Dis                                 | posed o                                | of, or Benefi                        | icially Owne   | d   |                          |
| 1.Title of Security<br>(Instr. 3)  |   | 2. Transaction Date (Month/Day/Year | ar) any |   | n Date, if   | f Cod<br>(Inst    | 3. Transaction<br>Code<br>(Instr. 8)                            |                     | 4. Securities Acquir<br>(A) or Disposed of (<br>(Instr. 3, 4 and 5) |       | f (D) Ov   | (D) Owned Followi<br>Transaction(s)   |  | ecurities Beneficially<br>ing Reported |  | 6.<br>Ownership<br>Form:             | Beneficial   |   |                          |
|  |   |                                     |         | (Month/Day  |  | ay/Year           |   | ode                 | V   | Amour | (A) or (D) | Price (Ir   | (Instr. 3 and 4)   |  |  |                                      | Direct (D)<br>or Indirect<br>(I)<br>(Instr. 4)   | Ownership<br>(Instr. 4)                               |                          |
| Common   | Common Stock, Par Value \$0.01 05/26/2005 |                                     |         | 05/26/2005  |  |                   |   | M                   |   | 7,035 |            | \$<br>6.84 12   | 124,283  |  |  | D                                    |  |   |                          |
| Security (Instr. 3)  |   | Price of Derivative                 |         | Execution Date, if<br>any<br>(Month/Day/Year)               | Code   |                   | of<br>Deriva<br>Securit<br>Acquir<br>(A) or<br>Dispos<br>of (D) | tive<br>ties<br>red | Expiration Date<br>(Month/Day/Year                                  |       |            |   | of Unde<br>Securiti<br>(Instr. 3   | ies                                    | Security                               | Derivative<br>Security<br>(Instr. 5) | e Derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction( | Form o<br>Derivat<br>Security<br>Direct (<br>or Indir | Ownersh<br>y: (Instr. 4) |
|  |   |                                     |         |   |  | (Instr. 3, and 5) |   | 3, 4,               |   |       |            |   |  |  |  |                                      | (Instr. 4)   | (Instr. 4   | 4)                       |
|  |   |                                     |         |   | Code   | v                 | (A)   |                     | Date<br>Exercis   | able  |            | xpiration<br>ate  | Title  | 0<br>N<br>0                            | Amount<br>or<br>Number<br>of<br>Shares |                                      |  |   |                          |
| Incentive<br>Stock<br>Options  | \$ 6.84                                   | 05/26/2                             | 005     |   | М  |                   | 7,  | ,035                | 05/31/  | /199  | 9(1) 0:    | 5/31/2005   | Comm   |  | 7,035                                  | \$ 0                                 | 17,965   | D   |                          |
| Repor  | ting O                                    | wners                               |         | Rel   | ationsh  | ips               |   |                     |   | ]     |            |   |  |  |  |                                      |  |   |                          |
| Reporting  | Owner Nam                                 | ne / Address                        | Directo | or 10%  | )fficer  |                   |   |                     | Other   |       |            |   |  |  |  |                                      |  |   |                          |

|   | Relationships |              |                       |       |  |  |  |  |
|---|---------------|--------------|-----------------------|-------|--|--|--|--|
| Reporting Owner Name / Address  | Director      | 10%<br>Owner | Officer               | Other |  |  |  |  |
| KELKER NORMAN E<br>C/O ENZO BIOCHEM, INC.<br>527 MADISON AVENUE<br>NEW YORK, NY 10022 |               |              | Senior Vice President |       |  |  |  |  |

## **Signatures**

| /s/ Norman E. Kelker            | 05/31/2005 |
|---------------------------------|------------|
| **Signature of Reporting Person | Date       |

### **Explanation of Responses:**

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) The options vested in four equal annual installments, beginning on May 31, 1995.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.