

DOW CHEMICAL CO /DE/  
Form 424B2  
June 14, 2010

**CALCULATION OF REGISTRATION FEE**

| <b>Title of Each Class of<br/>Securities Offered</b> | <b>Maximum<br/>Aggregate<br/>Offering Price</b> | <b>Amount of<br/>Registration<br/>Fee(1)</b> |
|--|---|--|
| 4.00% Dow InterNotes® due June 15, 2015              | \$6,726,000.00                                  | \$479.56                                     |
| 5.00% Dow InterNotes® due June 15, 2017              | \$2,586,000.00                                  | \$184.38                                     |
| 5.95% Dow InterNotes® due June 15, 2020              | \$8,954,000.00                                  | \$638.42                                     |
| <b>TOTAL</b>   | <b>\$18,266,000.00</b>                          | <b>\$1,302.37</b>                            |

(1) The filing fee of \$1,302.37 is calculated in accordance with Rule 457(r) under the Securities Act of 1933

Filed Under Rule 424(b)(2), Registration Statement No. 333-164985

Pricing Supplement No. 72 dated June 14, 2010 (To: Prospectus Dated February 19, 2010 and Prospectus Supplement Dated February 19, 2010)

1st

| CUSIP Number | Principal Amount | Selling Price | Gross Concession | Net Proceeds    | Coupon Rate | Coupon Frequency | Maturity Date | 1st Coupon Date | Coupon Amount | Survivor Option | Product Ranking        |
|--------------|------------------|---------------|------------------|-----------------|-------------|------------------|---------------|-----------------|---------------|-----------------|------------------------|
| 26054LJZ7    | \$ 6,726,000.00  | 100.000%      | 1.250%           | \$ 6,641,925.00 | 4.00%       | SEMI-ANNUAL      | 06/15/2015    | 12/15/2010      | \$19.78       | YES             | Senior Unsecured Notes |

**Redemption Information: Callable at 100.000% on 06/15/2011 and every coupon date thereafter****Joint Lead Managers and Lead Agents:** BofA Merrill Lynch, InCapital LLC **Agents:** Charles Schwab & Co. Inc.,

Citigroup Global Markets Inc., Morgan Stanley &amp; Co. Incorporated, UBS Investment Bank, Wells Fargo Advisors LLC

The Dow Chemical Company InterNotes will be subject to redemption at the option of The Dow Chemical Company, in whole on the Interest Payment Date occurring any time on or after 06/15/2011 at a redemption price equal to 100% of the principal amount of The Dow Chemical Company InterNotes, plus accrued interest thereon, if any, upon at least 30 days prior notice to the Noteholder and the Trustee, as described in the Prospectus.

|           |                 |          |        |                 |       |             |            |            |         |     |                        |
|-----------|-----------------|----------|--------|-----------------|-------|-------------|------------|------------|---------|-----|------------------------|
| 26054LKA0 | \$ 2,586,000.00 | 100.000% | 1.450% | \$ 2,548,503.00 | 4.85% | SEMI-ANNUAL | 06/15/2017 | 12/15/2010 | \$23.98 | YES | Senior Unsecured Notes |
|-----------|-----------------|----------|--------|-----------------|-------|-------------|------------|------------|---------|-----|------------------------|

**Redemption Information: Callable at 100.000% on 06/15/2011 and every coupon date thereafter****Joint Lead Managers and Lead Agents:** BofA Merrill Lynch, InCapital LLC **Agents:** Charles Schwab & Co. Inc., Citigroup Global Markets Inc.,

Morgan Stanley &amp; Co. Incorporated, UBS Investment Bank, Wells Fargo Advisors LLC

The Dow Chemical Company InterNotes will be subject to redemption at the option of The Dow Chemical Company, in whole on the Interest Payment Date occurring any time on or after 06/15/2011 at a redemption price equal to 100% of the principal amount of The Dow Chemical Company InterNotes, plus accrued interest thereon, if any, upon at least 30 days prior notice to the Noteholder and the Trustee, as described in the Prospectus.

|           |                 |          |       |                 |       |             |            |            |         |     |                        |
|-----------|-----------------|----------|-------|-----------------|-------|-------------|------------|------------|---------|-----|------------------------|
| 26054LKB8 | \$ 8,954,000.00 | 100.000% | 1.80% | \$ 8,792,828.00 | 5.75% | SEMI-ANNUAL | 06/15/2020 | 12/15/2010 | \$28.43 | YES | Senior Unsecured Notes |
|-----------|-----------------|----------|-------|-----------------|-------|-------------|------------|------------|---------|-----|------------------------|

**Redemption Information: Callable at 100.000% on 06/15/2011 and every coupon date thereafter****Joint Lead Managers and Lead Agents:** BofA Merrill Lynch, InCapital LLC **Agents:** Charles Schwab & Co. Inc.,

Citigroup Global Markets Inc., Morgan Stanley &amp; Co. Incorporated, UBS Investment Bank, Wells Fargo Advisors LLC

The Dow Chemical Company InterNotes will be subject to redemption at the option of The Dow Chemical Company, in whole on the Interest Payment Date occurring any time on or after 06/15/2011 at a redemption price equal to 100% of the principal amount of The Dow Chemical Company InterNotes, plus accrued interest thereon, if any, upon at least 30 days prior notice to the Noteholder and the Trustee, as described in the Prospectus.

Trade Date: Monday, June 14, 2010 @ 12:00 PM ET

The Dow Chemical Company

Settle Date: Thursday, June 17, 2010

The Dow Chemical Company InterNotes

**The Dow  
Chemical  
Company**

Minimum Denomination/Increments: \$1,000/\$1,000

All trades settle flat and clear SDFS: DTC Book-Entry Only

DTC number: 0235 via RBC Dain Rauscher Inc.

If the maturity date or an interest payment date for any note is not a Business day (as term is defined in the Prospectus), principal, premium, if any, and interest for that note is paid on the next Business day, and no interest will accrue from, and after, the maturity date or interest payment date.

*InterNotes® is a registered trade mark of InCapital Holdings LLC All rights reserved*