



## TRICAT Zeolites, Molecular Sieves and Custom Catalysts

To our Customers, Colleagues and Friends,  
**WE'RE BACK!**

**TRICAT** is happy to announce that we are back as suppliers of zeolites, adsorbents and specialty catalysts. So, whether you need zeolites or other inorganic powders, molecular sieves, custom catalyst beads, tablets, extrudates, pills or spray dried microspheres.....TRICAT is ready.

As many of you know, TRICAT sold its zeolite manufacturing plant in 2006. This plant was located in Germany and was the primary source of TRICAT's specialty zeolites and molecular sieves including ZSM-5's, Betas, Mordenites, A's, X's and Y's. The sale of the plant limited TRICAT's ability to participate in the market and to supply these products.

Soon, it became clear that TRICAT's absence created a vacuum in the market and opened an opportunity to develop a new business model for the supply of specialty zeolites and catalysts. Former customers have supported and encouraged this new model. Since 2006, TRICAT has been busy establishing a network of alliances, joint ventures and partnerships with the premier manufacturing companies in China. Notable are Qilu Huaxin High Tech and Luoyang Jianlong Chemical Industries.

In addition, TRICAT now has catalyst forming, drying and impregnation equipment at our own manufacturing plants in McAlester, Oklahoma and Bitterfeld, Germany to manufacture finished catalysts in a variety of forms. We have this available for customers seeking a new and independent source for custom catalysts.

With this platform, TRICAT has resumed business as a supplier of standard and custom zeolite powders, adsorbents and specialty catalysts through its headquarters in the USA. TRICAT will be your guarantor of product quality and consistency, and will be your know-how and intellectual property guardian. We have established stringent and world-class Quality Control Assurance procedures, along with superior protection policies for all your information.

Although standard products are available, TRICAT remains dedicated to custom materials and specialized toll manufacturing. The business model is based on the assumption that every client will need some degree of customization, and we welcome that opportunity. We have a demonstrated long-term commitment to this business, and trust your satisfaction with our high value and quality offering will result in the sustainable and joint success of our businesses.

We are pleased to again be able to offer specialty zeolites, molecular sieves and custom catalysts as key components of TRICAT's new portfolio, and we look forward to being of service to you and your company in the near future. Some brief product information is shown on the reverse side. Please visit our website at [www.tricatgroup.com](http://www.tricatgroup.com) for more product details and contact information.





**TRICAT**

**Contacts: Loly Farnos**  
**Tel: (484) 840 0419**  
**Cell: (302) 293 1843**  
**lfarnos@tricatgroup.com**

**John Pearce**  
**Tel: (203) 861 9221**  
**Cell: (203) 410 5217**  
**jpearce@tricatgroup.com**

| <b>Y Zeolites</b>                                  |            |             |             |              |              |              |              |              |              |              |              |
|--|------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|  | <b>NaY</b> | <b>RY-2</b> | <b>RY-8</b> | <b>RY-16</b> | <b>UY-11</b> | <b>UY-21</b> | <b>UY-22</b> | <b>DY-31</b> | <b>DY-32</b> | <b>DY-43</b> | <b>DY-46</b> |
| <b>SiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub></b> | 5.2        | 5.2         | 5.2         | 5.2          | 5.2          | 5.2          | 8-10         | 10-12        | 20-24        | 30-40        | 60-70        |
| <b>UCS (nm)</b>                                    | 2.465      | 2.452       | 2.460       | 2.468        | 2.450        | 2.450        | 2.445        | 2.440        | 2.435        | 2.430        | 2.425        |
| <b>Na<sub>2</sub>O (wt %)</b>                      | 13         | 1.5         | 0.8         | .4           | 3.0          | .2           | .2           | .05          | .05          | .02          | .02          |
| <b>Re<sub>2</sub>O<sub>3</sub> (wt %)</b>          |            | 1.5-2.5     | 7.5-8.5     | > 16         |              |              |              |              |              |              |              |
| <b>S.A. (m<sup>2</sup>/g)</b>                      | > 700      | > 600       | > 625       | > 625        | > 600        | > 650        | > 650        | > 700        | > 700        | > 650        | > 650        |

|  | <b>ZSM-5's</b> |                      |                     |            |                 |                 | <b>Beta Zeolites</b> |                              |              |
|--|----------------|----------------------|---------------------|------------|-----------------|-----------------|----------------------|------------------------------|--------------|
|  | <b>5-R</b>     | <b>5-X</b>           | <b>5-S</b>          | <b>HZX</b> | <b>5-300</b>    | <b>5-500</b>    | <b>B-25</b>          | <b>B-150</b>                 | <b>B-300</b> |
|  | <b>Std.</b>    | <b>Small Crystal</b> | <b>Hi Stability</b> |            | <b>Hi Ratio</b> | <b>Hi Ratio</b> | <b>Std.</b>          | <b>Hi Ratio Hi Stability</b> |              |
| <b>SiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub></b> | 25- 30         | 23 - 27              | 30 - 35             | 45 - 50    | ca. 300         | ca. 500         | 20 - 25              | 140 - 160                    | 275 - 325    |
| <b>Na<sub>2</sub>O (wt %)</b>                      | < 0.1          | < .05                | < .05               | < .05      | < 0.1           | < 0.1           | < .05                | < .05                        | < .05        |
| <b>TSA, BET (m<sup>2</sup>/g)</b>                  | >350           | > 400                | > 375               | > 400      | > 400           | > 400           | > 500                | > 500                        | > 500        |
| <b>ZSA, BET (m<sup>2</sup>/g)</b>                  | > 320          | > 340                | > 330               | > 330      | > 350           | > 350           | > 450                | > 450                        | > 450        |
| <b>Crystal Size</b>                                | 1000 nm        | 200 nm               | 800 nm              | 800 nm     | 2000 nm         | 3000 nm         | < 100 nm             | < 100 nm                     | < 100 nm     |

**TRICAT** also offers a full range of adsorbents and molecular sieves, including 3A, 4A, 5A, 10X and 13X in custom sized beads and extruded pellets, as well as dried or activated powders.

