Efficient Catalysts for a Variety of Reactions

Dorf Ketal is the industry pioneer and a global leader in producing and supplying organic titanates and zirconates. For more than 50 years, Dorf Ketal has been delivering innovative, high-quality Tyzor® compounds to meet the evolving needs of a wide range of industrial markets. Dorf Ketal offers more than 40 grades of Tyzor®, including several specialty compounds.

Diverse Applications

Dorf Ketal Tyzor® organic titanates and zirconates can act as Lewis acid catalysts for many chemical reactions, thereby optimizing product properties and processes.

Some of the typical reactions for which Tyzor® organic titanates and zirconates act as an efficient catalyst include:

- Esterification (e.g., plasticizer, various carboxylic esters, fatty acids, alkyd resins and polyester)
- Transesterification (e.g., polyester, acrylic ester and various carboxylic esters)
- Condensation (e.g., silicones and polyester)
- Addition (e.g., polyurethane and epoxies)
- Ziegler-Natta (e.g., polyolefins, such as PE and PP)
- Decomposition of organic or inorganic materials in the presence of heat or light
- Binder/carrier for other mixed metal oxide systems used as catalysts for chemical reactions

Multitude of Benefits

As a Lewis acid catalyst, Dorf Ketal Tyzor® organic titanates and zirconates offer many advantages, including:

- High yield
- High purity
- Low catalyst loading
- Elimination of side reactions
- Acceleration of the reaction
- Lower required temperatures
- Easy processing
- Stereo-specific reaction (Ziegler-Natta)
- Low toxicity, a distinct advantage over tin, antimony and mercury compounds

Broad Product Selection

Tyzor® organic titanates and zirconates are available as reactive alkoxides or stable chelates of titanium or zirconium. When used for catalysis, the alkoxides are usually preferred. These alkoxides are moisture sensitive; therefore, they are typically added as the last ingredient. In general, titanates are more reactive than zirconates.

Put Tyzor® to Work for You

The broad range of Tyzor® organic titanates and zirconates allows you to select the optimum grade to meet your specific needs, enabling you to produce superior quality products for a wide variety of applications and market segments.

And, with warehouses in every region and an integrated global network of highly trained sales and technical service professionals available to assist you, it is easy and convenient to put Tyzor® to work in your application anywhere in the world.