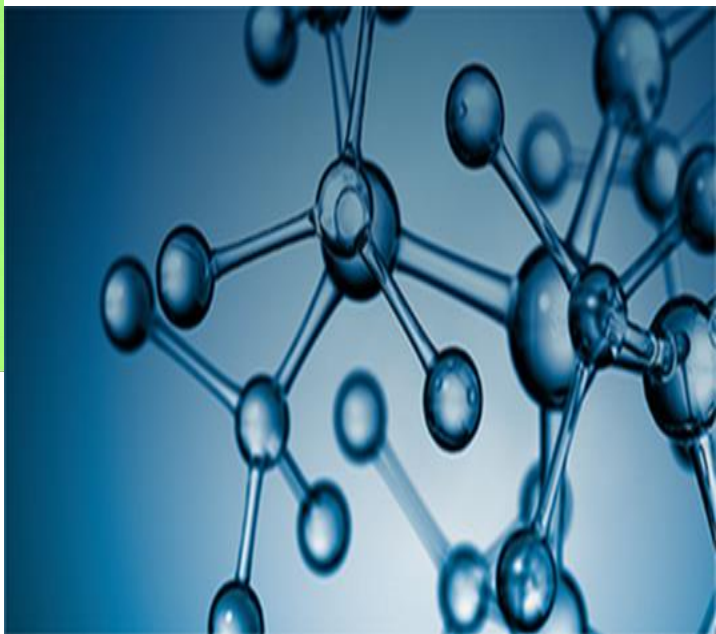
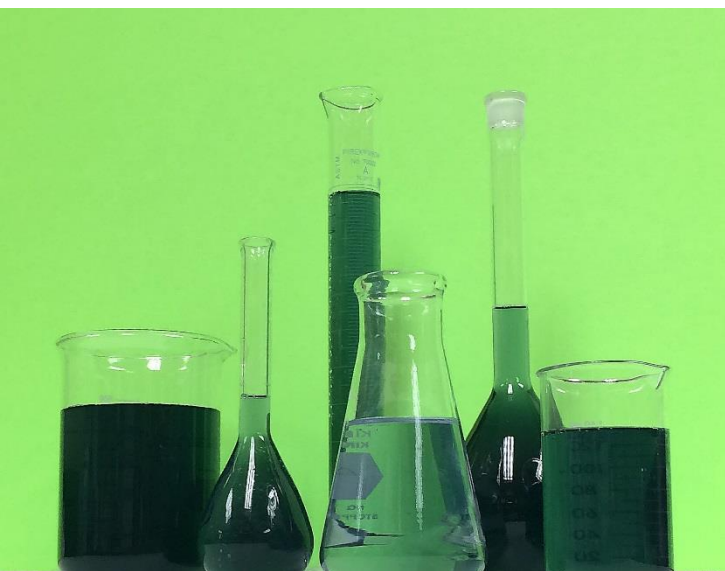


Innovative Chemical Technologies, Inc.

Organometallic Fatty Acid Complexes: How They Work



innovative chemical technologies, inc.

Organometallic Fatty Acid Complexes

Chemical Structure (continued)

With time and temperature, these complexes begin to network extensively (crosslink). As they lose a proton to the weak base, stable oxide bridges will form between the Cr (III) atoms and the substrate.

As these networks dry and cure, they become more permanently bonded to the substrate and to each other, which provides a durable surface treatment. This treatment will have a significant amount of hydrocarbon character due to the fatty acid chains seeking the air interface and thus making the substrate more water repellent.

Many surfaces such as paper, leather, textiles, and glass fibers contain polar groups (such as hydroxyls, esters, amides, carboxylates, sulfonic acids), and they are negatively charged. The high positive charge on the molecules of the Flexipel ion causes the chromium portion of the molecules to strongly bond with the negatively charged surface. The fatty acid groups orient outward, away from the substrate surface.

Properties

- Water repellency
- Release properties
- Increased chemical resistance
- Resistance to aqueous stains
- Wet strength of paper may increase slightly
- Does not affect substrate appearance
- Improved grease resistance, when used with aqueous polymer systems

This information relates only to the specific material referred to herein and not to its use in combination with any other material or in any process, unless explicitly stated herein. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled; however, no warranty, guarantee or other representation is made as to its accuracy, reliability, or completeness, or regarding any liabilities arising from others' intellectual property rights.

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