

DESCRIPTION

Tyzor® 212 is a zirconium chelate with approximately 52% active ingredient in 1-propanol solution. It is a clear, slightly viscous yellow liquid that is not affected by freezing and thawing.

Tyzor® 212 reacts with water by hydrolysis to form a reactive hydroxy zirconium chelate that is stable in water for extended periods. The original or hydrated chelate bonds with organic -OH or -COOH groups to form strong gels by cross-linking many polymeric materials and carbohydrates such as cellulose, starch and guar. Tyzor® 212 reacts similarly as an adhesion promoter on -OH functionalized surfaces.

APPLICATIONS

OIL WELL FRACTURING FLUIDS

Tyzor® 212 is an effective cross-linker that forms high-viscosity aqueous gels in dispersions of guar and its derivatives used in oil and gas well fracturing applications.

INKS, PAINTS & COATINGS

Tyzor® 212 cross-links polymers and binders in solvent-borne and water-borne coatings and printing inks, improving film strength, adhesion promotion and rheology control. Surface modification of pigments may also be achieved. Tyzor® 212 is compatible with water, offers low color generation and works well over a wide pH range.

HOW TO USE

Tyzor® 212 typically is the last ingredient added to the polymer or binder in cross-linking reactions. Gel formation time depends on polymer type, temperature, pH, brine strength, zirconate concentration and other variables. Temperature curing may be required for activation.

TYPICAL PROPERTIES

PROPERTY	TYPICAL VALUE
ZrO ₂ , wt %	16.75
Zr, wt %	12.4
Active content, wt % approximate	52
Color	Yellow
Solvent	n-Propanol
Specific gravity @ at 25 °C (77 °F)	1.06
Freezing point, °C (°F)	< -25 (-13)
Flash point °C (°F)	22 (71.6)
Solubility	Miscible in water and most organic solvents

PACKAGING AND SHIPPING

Not regulated for transportation by US DOT

SAFETY and HANDLING

Please refer to the current Material Safety Data Sheet for detailed safety, handling and toxicity information.



Dorf Ketal Speciality Catalysts LLC
11200 Westheimer Road – Suite 400
Houston, Texas 77042
USA

Tel: +1-713-343-2377
E-mail: tyzor@dorketal.com
www.dorketal.com

The information contained in this sheet is provided free of charge and is based on technical data that Dorf Ketal believes to be correct and reliable. It is intended for use by persons having technical skill and at their own discretion and risk. We make no warranties, express or implied, and assume no liability in connection with any of this information as the conditions of use are outside our control. In addition, none of the contents of this publication should be taken as a license to operate under, or a recommendation to infringe any patent.