



Organic Titanate

DESCRIPTION

Tyzor[®] LA is a hydrolytically stable, chelated titanium solution that is a clear to slightly hazy colorless to light yellow aqueous liquid with ca. 50 % active content.

FUNCTIONALITY	Tyzor [®] LA is a water based titanium chelate that is stable in water at pH 7, making it an excellent choice for use in aqueous systems. Tyzor [®] LA is stable so long as the pH is maintained around 7-8 Tyzor [®] LA can act as a catalyst in applications such as esterification, transesterification, condensation, etc. Tyzor [®] LA can effect cross-linking of OH functional polymers, adhesion promotion, and formation of polymeric titanium dioxide as binder or coating.	
APPLICATIONS	Reaction Catalyst	Tyzor [®] LA is an effective catalyst for esterification, transesterification, condensation, and addition reactions. It is especially well-suited to direct esterification processes due to its excellent compatibility with the water byproduct. Benefits are moderate reaction rates, high yield, easy work-up, low toxicity, and low catalyst concentration.
	Oil well fracturing fluids	Tyzor [®] LA is an effective cross-linker for dispersions of guar and its derivatives to form high viscosity aqueous gels used in oil well fracturing applications.
	Paints and coatings	Tyzor [®] LA can cross-link binders in -OH functional water borne paints. Heating can be used to form a polymeric titanium dioxide layer used as binder or coating on various substrates to effect e.g. adhesion , increased surface hardness, heat and light reflection, corrosion resistance, and scratch resistance
HOW TO USE	For cross-linking reactions, Tyzor ^{$° LA is typically added to the polymer or binder as the las ingredient. The time for gel formation depends on the type of carbohydrate polymer, tem pH, brine strength, titanate concentration, etc.$}	
	In catalytic processes Tyzor [®] LA is used as additive, typically added as the last ingredient of the reaction components to prevent undesired pre-reactions.	

TYPICAL PROPERTIES	PROPERTY	TYPICAL VALUE	
	TiO2 Content	ca. 13.6%	
	Active Content	ca. 50 %	
	Color	Colorless to Light	
		Yellow	
	Density (25°C)	ca. 1.21g/ml	
	Viscosity (25°C)	ca. 9 mPa*s	
	рН	ca. 8-9	
	Pour Point	ca10 °C	
	Boiling Point	ca. 100 (water) °C	
	Flash Point**	None	
	Solubility in Water	Miscible	
GLOBAL REGISTRATION	Please refer to "Tyzor Global Registration Information" Bulletin		
SAFETY and HANDLING	For specific safety, handling and toxicity information, please refer to the current Material Safety Data Sheet.		
TYPICAL SHELF LIFE	2 years		

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