



www.miicron.com

APPLICATIONS & TYPES OF TITANATES WITH CAS NO.

Basic Titanates :

Sr. No.	Product	CAS Numbers	Application for Basic Titanates by Miicron
1	Tetra N Butyl Titanate	(CAS No. 5593-70-4)	1.As a catalyst: Esterification, Transesterification reaction and Polymerization of Epoxies, Phenolics and Silicons 2.As a crosslinking agent: Wire enamels, Surface Coatings, Printing inks, Silicon RTV compounds and in Olefin Polymerization Systems
2	Tetra Iso Propyl Titanate	(CAS No. 546-68-9)	1.As a catalyst: Esterification, Transesterification reaction and Polymerization of Epoxies, Phenolics and Silicons 2.As a crosslinking agent: Wire enamels, Surface Coatings, Printing inks, Silicon RTV compounds and in Olefin Polymerization Systems Adhesion promoter, Wax & Oil additive and in scratch resistant glass.
3	Tetra 2-Ethyl Hexyl Titanate	(CAS no. 1070-10-6)	Esterification Catalyst (Plasticizer, different esters) elimination of by products with high yield Transesterification Catalyst ((meth)acrylic esters & polyester. Coating : Additive Treatment of glass. metal, filler, pigment.Increased surface hardness, adhesion promotion, improved dispersibility ,coloring effects, heat and light reflection,iridescence, hydrophobation, corrosion resistance, etc. Paint additive: crosslinking of paint binders, adhesion promotion, binder for high temperature paints.
4	Tetra Ethyl Titanate	(CAS no. 3087-36-3)	Electro-insulating resins and varnishes.High yield catalyst and increase the rate of reaction with minimum side reaction.

Polymeric Titanates

Sr. No.	Product	CAS Numbers	Application for Basic Titanates by Miicron
1	Poly Butyl Titanate	(CAS No. 9022-96-2)	surfaces as primer by improving adhesion of top coatings. Moreover, it is used to study the thermal properties of silicone coating KT-30.



www.micron.com

Chilated Titanates

Sr. No.	Product	CAS Numbers	Application for Basic Titanates by Miicron
1	Triethanolamine Titanate	(CAS no. 36673-16-2)	Used in printing ink additive to improve the adhesion, heat stability and other resistance properties. Crosslinking agent in aqueous system. in acrylic emulsion paint to improve the performance.
2	Titanium Acetyl Acetonate	(CAS no. 17927-72-9)	Printing ink additive to improve adhesion, heat stability and other chemical resistance properties. Cross linking agent for hydroxylic compounds. As a cure catalyst. As a coupling agent for fillers and fibers. Used as a curing agent Used as a coupling agent for filler and fiber
3	Titanium Ethyl Acetoacetate	(CAS no. 83877-91-2)	<ol style="list-style-type: none"> 1. RTV-1 silicone sealants: (methoxy, oximo, benzamido systems) drying agent water scavenger; Catalyst for silane crosslinking with silicones; Crosslinking agent; Adhesion promoter to different substrates 2. Printing inks: Used as a crosslinking as well as coupling agent. 3. Paints: Crosslinking of paint binders for high temperature paints. 4. In esterification reaction with elimination of by products with high yield. 5. Coating: surface hardness, adhesion promotion, improved dispersibility, coloring effects, heat light reflection, corrosion protection 6. Oxides via sol-gel process (metal coatings for corrosion protection) simple process for special oxides as coatings in combination with other metal alkoxides
4	Titanium Butyl Phosphate	(CAS no. 109037-78-7)	Printing ink additive to improve adhesion, heat stability and other resistance properties like chemical, solvent and water resistance. It is useful as a low odour, low colour generating adhesion promoter for solvent based printing inks mainly for flexible packaging. As cross linking agent in polymeric binder to increase the rate of curing.
5	Titanium Ammonium Lactate	(CAS no. 65104-06-5)	A water based titanium chelate that is stable in water at pH 7 even in the presence of possible reactants. It is an excellent choice for use in aqueous systems. It is stable so long as the pH is maintained around 7-8. It can act as catalyst in applications such as esterification, transesterification, condensation. Can effect crosslinking of -OH functional polymers, adhesion promotion, and formation of polymeric titanium dioxide as binder or coating. Some regular commercial applications are as below for your information: Catalyst It 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. Effects are moderate reaction rates, high yield, easy work-up, low toxicity, and low catalyst concentration. Oil well fracturing fluids: It is an effective crosslinker for dispersions of guar and its derivatives to form high viscosity aqueous gels used in oil well fracturing applications. Paints and coatings: It can crosslink 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.