

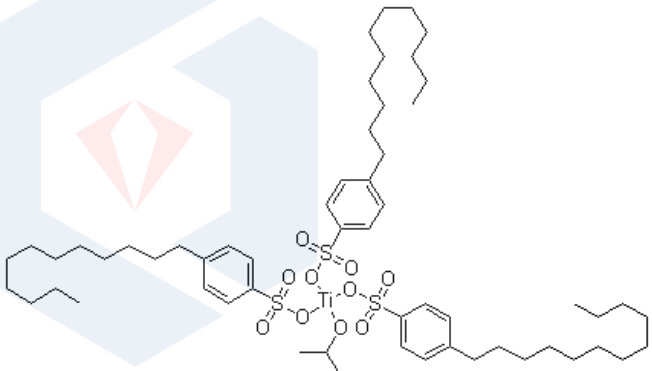
Technical Data Sheet

TiLink™ Titanate TCA-K9S (TCA-109)

Isopropyl tri (dodecylbenzenesulfonate) titanate

Description
A liquid monoalkoxy fatty acid titanate that is compatible to semi-polar and nonpolar material. Widely used as filler modifier in plastics and pigment dispersion aid in coatings.

CAS Registry Number	EINECS
61417-55-8	262-777-4

Molecular Formula	Molecular Structure
C ₅₇ H ₉₄ O ₁₀ S ₃ Ti	

Equivalent Product
Ken-React® 9S from Kenrich Petrochemicals, Inc

Typical Properties	
Index	Typical Value
Appearance	Viscous liquid with claret color
Specific Gravity (ρ_{20}), g/cm ³	1.08
Viscosity (25°C), mPa · s	500
Refractive Index (n_D^{25})	1.4885
Flash Point, °C	108
Decomposition Temperature, °C	210

**Solubility**

Soluble in alcohol, aromatic and mineral oil. Insoluble in water and will be hydrolyzed.

Applications and Performance**1. Plastic and rubber industry**

TCA-K9S can be used in composite materials to improve thermal stability, surface smoothness and loading level of fillers to reduce the dosage of resin and reduce the cost. It can be applied to polymers including PP, PE and rubber. TCA-K9S is a surface treatment agent for inorganic fillers such as calcium carbonate, kaoline, talcum etc, to improve hydrophobic property and dispersion of the filler. As a result, the products treated by this product will obtain improved mechanical strength, reduced moisture absorption.

When rubber is filled by the filler of kaolin treated by TCA-K9S, the rubber can obtain improved tearing strength and tensile strength. So silica can be partly replaced.

2. Coating and adhesive industry

TCA-K9S is a high efficient dispersion aid for pigment in coating and adhesive industry; it can enhance the CPVC (Critical Pigment Volume Concentration) value of the coating. So more pigment and filler can be used in the coating with low cost benefit and the same coating quality. Pigment can achieve a uniform and homogeneous distribution in the coating, so the coating will be shiner and more brilliant. It is an ideal dispersion aid for carbon black in solvent and waterborne coating.

Packing

This product is available in 20kg pail, 200L drums and 1000L immediate bulk container.

Storage and Shelf Life

Should be stored in dry, cool, ventilated room; keep away from water, moisture, high temperature and fire. This product has a shelf life of at least 12 months if stored in tightly closed original container at room temperature.

If this product is kept beyond the shelf life recommend on the product label, it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.