

## Santicizer® 154

### Plasticizer Product Profile

#### **Product Description**

Santicizer® 154 plasticizer is a triaryl phosphate ester with flame-retardant properties suitable for use in a variety of polymer systems. It is similar to tricresyl phosphate (TCP) and cresyl diphenyl phosphate (CDP) in the properties it imparts to polymers. However, it does not produce the delayed neuro-toxicity associated with phosphate esters made from ortho cresol or certain other ortho substituted phenols.

In polyvinyl chloride applications, Santicizer® 154 offers a high level of solvation, fast processing and compatibility limits that are wide enough for virtually all types of formulations. Of particular importance (in view of product losses during processing and in-plant environment) is its low volatility, which is comparable to TCP and CDP.

Santicizer® 154 imparts a significant level of fire retardance to vinyl and vinyl nitrile foams, and it helps the foamed product meet certain specified flammability performance criteria. Santicizer® 154 also acts as a processing aid and contributes to excellent cell structure.

In polyvinyl acetate emulsions, Santicizer® 154 gives flexibility, assists film formation and generally improves water resistance. It also provides a significant level of flame retardance to the composition.

With cellulosic resins, Santicizer® 154 flexibilizes and produces clear compositions suitable for lacquers. In cellulose acetate, acetate-butyrate and acetate-propionate, Santicizer® 154 offers sufficient compatibility to be used as an alternate plasticizer (or as an adjunct to solid triphenyl phosphate) to give the advantages of liquid vs. solid handling.

As a functional fluid, Santicizer® 154 has the advantages of relatively low viscosity and high autoignition temperature.

#### **Safety and Handling**

Complete toxicity and handling information can be found on the Material Safety Data Sheet, which is available upon request.



### Typical Properties

Molecular Weight	371
Phosphorus, %	8.4 (Calc)
• Acidity (meq/100gm. Max.)	0.20
• Appearance	Clear, mobile liquid
• Color (APHA) [max.]	100
• Moisture (KF in Methanol) %, max.	0.15
• Odor	Essentially odorless
• Refractive Index (@25°C)	1.5535 – 1.5565
• Specific Gravity (25°/25°C)	1.175 – 1.185
Density (@25°C) Ca. Lbs./gal.	9.8
Crystallizing Point (°C)	<-20
Boiling Point @ 10 mmHG, °C	258
Vapor Pressure (mm Hg) @200°C	1.0
@250°C	7.4
@300°C	41
Viscosity (Centistokes) @ 0°C	475
@25°C	58
@100°C	4.1
Coefficient of Thermal Exp. @10 - 40°C (cc/cc/°C)	0.000703
Flash Point (C.O.C.) [°F]	505
Fire Point (C.O.C.) [°F]	590
Surface Tension @23°C (dynes/cm)	38.6
Solubility in Water @25°C, %	<0.001
CAS Number	56803-37-3

#### • Specification