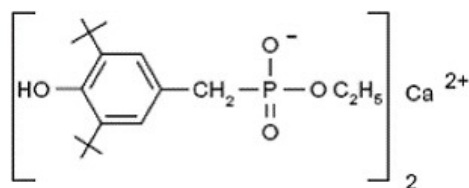


# PUREstab 1425

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

**Description:** PUREstab 1425 is a multifunctional additive that functions as an antioxidant for the stabilization of plastics, synthetic fibers, elastomers, and rosin ester tackifier resins. The product is also an effective esterification catalyst that is particularly useful in the production of rosin esters and in the solid-state polymerization of PET.

**Formula**



**Chemical name:** Phosphonic acid, P-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl] methyl]-, monoethyl ester, calcium salt (2:1)

**CAS number:** 65140-91-2                      **Molecular weight:** 695 g/mol

**Features & benefits:** PUREstab 1425 is particularly useful as a stabilizer and esterification catalyst in rosin esters, in PET and other thermoplastic polyesters. It is also effective for the stabilization of polyolefins (e.g. PP fibers), cross-linked elastomers, and specialty adhesives. In the production of rosin esters, PUREstab 1425 enables shorter reaction times, reduced discoloration, a low acid number, and improved heat stability. In PET, it provides faster solid-state polymerization, improved color, and reduced generation of acetaldehyde. The product is non-discoloring, has excellent resistance to migration and low-volatility during polycondensation and high temp. processing.

**Application:** In rosin esters, the use levels range from 0.05 to 1% by weight. It can be used in combination with other additives, including AOs, disproportionation agents, and LS. In PET, the use levels range from 0.01 to 0.2% by weight. The product may be added at different stages in production, e.g, in slurry preparation (as a solution in EG), during the esterification step, or after finishing (by extrusion compounding). In processes utilizing phosphoric acid, sequential addition is necessary to avoid undesired interactions.

**Health & Safety:** PUREstab 1425 exhibits a very low order of oral toxicity and does not present any abnormal problems in its handling or general use.

**Physical Properties:**

Melting range	>260°C		
Solubility (20°C) g/100g solution	Solubility (20°C) g/100g solution		
- Acetone	0.02	- Ethanol	<0.1
- Chloroform	0.01	- n-hexane	0.02
- Methanol	8.0	- Toluene	0.5
- Ethylene glycol	8.0	- Water	0.24