



TECHNICAL DATA SHEET

TOPS FR-308

PRODUCT DESCRIPTION

TOPS FR-308 is a chlorinated phosphate ester liquid flame retardant that finds wide applications in the production of PU foams (Flexible and Rigid) and coatings, acetate fiber, PVC, EVA, acrylic lattices, vinyl copolymers, nitrocellulose lacquers, epoxy resins and Phenolic materials. In PU foams, this additive flame retardant may be combined in either side of a two component urethane-package system to achieve outstanding long-term stability. In rigid foam applications, **TOPS FR-308** is widely used as a flame retardant package to pass fire safety standards such as DIN 4102 (B1/B2), EN 13823 (SBI,B), GB/T 8626-88, and ASTM E84-00. In flexible foams applications, **TOPS FR-308** is suited to pass the BS5852 Crib 5 test when used in combination with Melamine.

TOPS FR-308

Name:	Tris (1-Chloro-2-Propyl) Phosphate (TCPP) ; TMCP
Molecular Formula:	C ₉ H ₁₈ Cl ₃ O ₄ P
Phosphorus Content:	9.4 wt. %
Chlorine Content:	33.0 wt. %
CAS Number:	13674-84-5
Specific Gravity @ 25 °C:	1.29 g/cc
Molecular Weight:	327.57

SPECIFICATIONS:

Appearance:	Clear, colorless viscous liquid
Water Content, Karl Fischer:	0.1% maximum
Water Solubility @ 20°C:	Insoluble
Viscosity, cps @ 20°C:	78
Acid value, mg KOH/g:	0.1
Refractive index @ 25°C:	1.460 – 1.466
Bulk Density:	1.28 - 1.29 g/ml at 20°C