

## UNIPLEX FRP-45

### CAS NO. 26040-51-7

Uniplex FRP-45 is a liquid flame retardant for polyvinyl chloride that provides excellent plasticizing properties, in addition to flame retardancy. Uniplex FRP-45 provides the following advantages in polyvinyl chloride, as well as in other elastomers such as SBR, Neoprene, and EPDM:

- High oxygen index values for efficient flame retardancy
- Highly effective plasticization
- Superior thermal and color stability
- Low volatility
- Excellent electrical properties

#### APPLICATIONS:

Uniplex FRP-45 is recommended in the following applications:

- Fire Retardant Flexible PVC
- Wire and Cable Insulation
- Film and Sheeting
- Carpet Backing
- Coated Fabrics
- Wall Coverings
- Adhesives and Coatings

#### SPECIFICATIONS:

Appearance	Clear, amber liquid
Color, Gardner	3 maximum
Acidity, meq./100 grams	0.05 maximum
Water Content, Karl Fischer	0.1% maximum
Assay, GC (as Di-(2-Ethylhexyl) Tetrabromophthalate)	95% minimum
2-Ethyl Hexanol, GC	0.3% maximum
Tetrabromophthalic Anhydride, GC	0.1% maximum

## TYPICAL PROPERTIES

Specific Gravity    Approximately 1.5  
Melting Point       -20°C  
Flash Point          > 510°F (COC)

## SUGGESTED FORMULATIONS:

Uniplex FRP-45 is used as a total, or partial, replacement for conventional plasticizers, such as Uniplex 546 (Trioctyltrimellitate). The total plasticizer content of polyvinyl chloride compounds should be in the range of 40 - 50 parts plasticizer per 100 parts polyvinyl chloride resin. A typical formulation for wire and cable is:

<u>COMPONENT</u>	<u>PARTS</u>
Polyvinyl Chloride Resin	100
Total Plasticizer	40 - 50
Clay	10
Dibasic Lead Phthalate	5 - 7
Antimony Oxide	2 - 4
Lubricant (Paraffin wax or Stearic Acid)	0.3 - 0.5
Antioxidant	0.2 - 0.4

## HANDLING INFORMATION:

Refer to Material Safety Data Sheet Handling Information.

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