

Product Bulletin

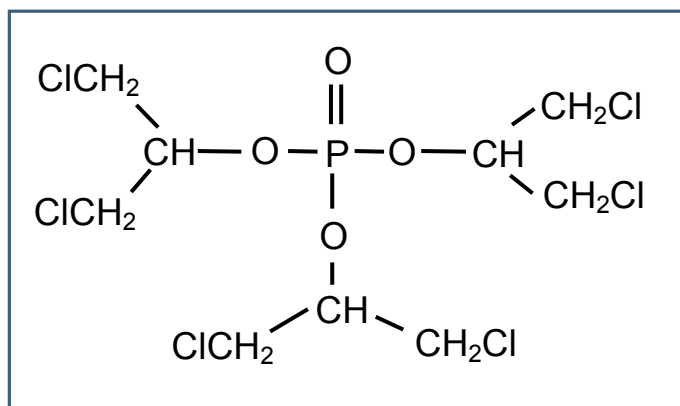
supresta[™]
BUILT-IN DEFENSE

Fyrol[®] FR-2

Fyrol[®]
Flame Retardants

Chemical Name: Tris(1,3-dichloroisopropyl) phosphate

CAS #: 13674-87-8



Fyrol Product Selector

	Key polyurethane foam application	Key characteristic
6	Rigid, flexible-flame lamination	Reactive flame retardant.
38	Flexible	Low scorch.
FR-2	Flexible	Excellent hydrolytic stability, low volatility, low fogging, and processing characteristics.
FR-7	Flexible	Good compression set, IFD and scorch properties, low volatility, low scorch, and good processing characteristics.
HF-4	Flexible	Halogen-free, low scorch with good compression set and IFD properties. Recommended for Cal 117 and MVSS 302 foams.
PCF	Rigid, flexible-BS5852	Excellent hydrolytic stability.
PNX	Flexible	Highly efficient halogen-free flame retardant.
TEP	Rigid	Halogen-free flame retardant, excellent viscosity reducer for high viscosity polyols.

Overview

Fyrol[®] FR-2 is an additive flame retardant commercially used in flexible and rigid polyurethane foams. Its superiority is demonstrated in excellent hydrolytic stability, low volatility, low fogging and processing characteristics, which enable it to be incorporated into foam formulations with little or no effect upon foam processing.

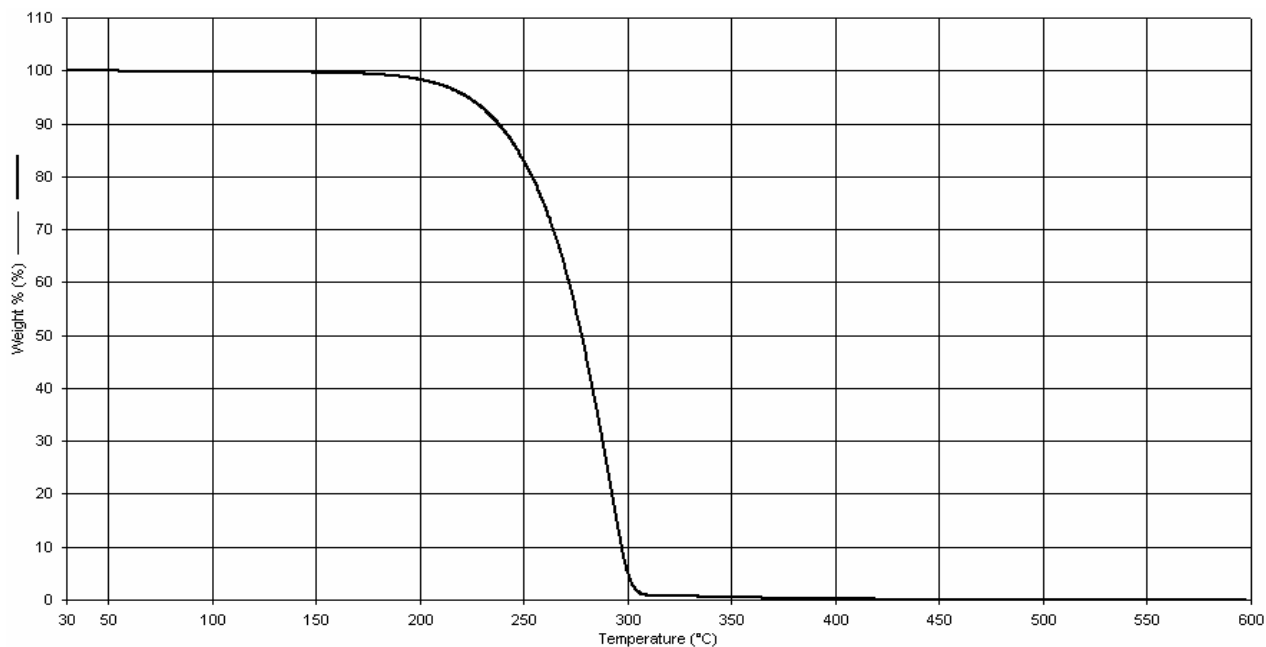
Key Applications

Fyrol[®] FR-2 is suitable for flexible polyurethane applications; the use of this flame retardant can easily achieve the California TB117 and automotive FMVSS302 flammability test. It is an adjunct FR for HR-melamine foams. It has low fogging properties that meet the DIN75201 test for automotive foams. It also can be used in epoxy resins, phenolics and unsaturated polyester resins.

Typical Properties

Physical appearance	Clear, transparent liquid
Phosphorus content, wt. %	7.1
Chlorine content, wt. %	49.0
Specific gravity, 25°C/25°C	1.520
Density @ 25°C, lbs/gal	12.7
	kg/m ³
	1520
Viscosity @ 25°C, mPa.s	1800
Acidity, mg KOH/g	0.09 max
Water content, wt. %	0.09 max
Color, APHA	<40

Thermogravimetric Analysis: Fyrol® FR-2 (10°C rise/minute in nitrogen)



2% wt. Loss	204°C
5% wt. Loss	223°C
10% wt. Loss	238°C

Safety & Handling

Consult the Material Safety Data Sheet for this product.

Shipping Information

Available in bulk tank trucks, isocontainers, 3,000 lb totes, and 690 lb drums.

For more information about our products and to place an order, please contact one of Supresta's regional sales offices.

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