

# LFP® Antifreeze

## for Fire Sprinkler Systems



TYCO® LFP® Antifreeze is the first and only UL Listed antifreeze solution for fire sprinkler systems.

### Meet NFPA Antifreeze Requirements

LFP® Antifreeze is formulated to help ensure fire sprinkler systems operate as intended by allowing flow in temperatures as low as -10°F (-23,3°C). The solution is compatible with most sprinkler system materials, including CPVC, and can be more cost-effective, as well as easier to install and maintain, than alternate freeze protection methods, such as heat tracing or dry systems.

Learn more at [www.tyco-fire.com](http://www.tyco-fire.com)



\*For the purpose of this product, non-toxic means acute exposure to ingredients in the LFP® Antifreeze does not pose a risk of adverse effects in humans or the environment following short-term exposure in scenarios related to fire sprinkler system installation, maintenance, and discharge.

### Features & Benefits

- UL Listed
- FBC™ System Compatible
- Helps meet requirements for NFPA 13, 13R, 13D and 25
- Minimum use temperature -10°F (-23,3°C)
- Listed for use in residential, commercial and some storage applications
- Can help meet NFPA requirements for the use of freeze protection methods
- Non-toxic\*
- Pre-mixed solution

# LFP® Antifreeze

## for Fire Sprinkler Systems

Johnson Controls is uniquely positioned to bring this solution to the fire protection industry. Backed by over 150 years of fire protection expertise, LFP® Antifreeze was developed in a cross-functional collaboration between Johnson Controls fire sprinkler product engineering and special hazards chemists.

### LFP® Antifreeze Pipe Expansion

Initial Fluid Volume Gal (L)	Temperature Change				
	20°F (-7°C)	40°F (4°C)	60°F (16°C)	80°F (27°C)	100°F (38°C)
	Approximate Fluid Expansion / Contraction gal (L)				
50 (227)	0.4 (1.8)	0.8 (3.6)	1.1 (5.0)	1.5 (6.8)	1.9 (8.6)
100 (455)	0.8 (3.6)	1.5 (6.8)	2.3 (10.5)	3.1 (14.1)	3.9 (17.7)
500 (2273)	3.8 (17.3)	7.6 (34.6)	11.5 (52.3)	15.4 (70.0)	19.4 (88.2)
1000 (4546)	7.5 (34.0)	15.2 (69.1)	22.9 (104.1)	30.8 (140.0)	38.8 (176.4)
1500 (6719)	11.3 (51.4)	22.8 (103.7)	34.4 (156.4)	46.2 (210.0)	58.2 (264.6)
2000 (9092)	15.1 (68.6)	30.3 (137.7)	45.9 (208.7)	61.6 (280.0)	77.6 (352.8)
2500 (11,365)	18.8 (85.5)	37.9 (172.2)	57.3 (260.5)	77.0 (350.0)	97.0 (440.1)
3000 (13,638)	22.6 (102.7)	45.5 (206.8)	68.8 (312.8)	92.4 (420.1)	116.4 (529.2)

\*NOTE: Interpolation and extrapolation can be calculated for values outside temperatures and volumes listed.

### LFP® Antifreeze Pipe Fill

Tubing Size	Approximate Gallons of Fluid/100 ft			
	Steel Schedule 40 Pipe	Polybutylene Tube	CPVC Pipe	Copper Pipe Type L
1/2 in.		2		1.5
3/4 in.		2.5	3.5	2.5
1 in.	4.5	3.5	5	4.5
1 1/4 in.	8	5.5	8	6.5
1 1/2 in.	11	6.5	10.5	9.5
2 in.	17.5	8.5	16.5	16.0
2 1/2 in.	25		24.0	25
3 in.	38.5		35.5	
4 in.	66.5			

\*NOTE: Values are approximate.

Customer Service: Tel: 800.558.5236 • Fax: 800.877.1295  
 Technical Service: Tel: 800.381.9312 • Fax: 800.791.5500

Always refer to the Technical Data Sheet TFP1680 for a complete description of all listing criteria, design parameters, installation instructions, care and maintenance guidelines, and our limited warranty.

[www.tyco-fire.com](http://www.tyco-fire.com)