

FireFighter GL

Sizes:

FireFighter GL is available in:

- 5-gallon pails
- 30-gallon drums
- 55-gallon drums
- 275- or 330-gallon totes
- 5000-gallon tank truck

FireFighter PG

Sizes:

FireFighter PG is available in:

- 1-gallon plastic bottles (6/case, PG Ready-to-Use only)
- 5-gallon pails
- 30-gallon drums
- 55-gallon drums
- 275- or 330-gallon totes
- 5000-gallon tank truck

Availability:

FireFighter GL & PG are available throughout the U.S. through wholesale distributors. Please contact Noble Company for your local representative and wholesaler.

Custom Blends:

Custom formulations are available. Please contact Noble Company for more information.

System Requirements, Limitations & Cautions:

All fire protection sprinkler systems that use FireFighter GL & PG should conform to local, state and NFPA requirements. The use of antifreeze within these systems should also conform to NFPA requirements.

Use of antifreeze solutions should also be in conformance with any state or local health codes. Please contact your local health authorities if you have any questions concerning the codes in your area.

Maintenance:

Chemicals which compose FireFighter GL & PG can break down over time. NFPA 25 requires that the freezing point of the system be tested at least once a year. Periodic testing of systems is critical to maintaining the proper concentration and freeze point of the fluid. Leaks, pressure surges, and temperature changes to the system can cause antifreeze to flow out of the system or water to flow into the system changing the freeze temperature.

Testing:

To test the freeze protection level of FireFighter GL or PG, the correct instrument must be used.

For testing FireFighter GL, Noble Company offers two instruments: 1) A laboratory grade hydrometer 2) A digital refractometer.

For testing FireFighter PG, Noble offers three instruments: 1) A laboratory grade hydrometer 2) An analog refractometer 3) A digital refractometer.

When testing indicates that the solution has weakened, empty the system and replace with new FireFighter GL or PG, according to the installation instructions.

For further information concerning correct testing procedures and test instruments, contact our technical services department and ask for "How to Choose the Correct Antifreeze Loop Tester", or go to www.noblecompany.com.

Technical Support:

Specifications, installation design, installation techniques and unique applications will be reviewed upon request. Address inquiries ATTN: FireFighter Technical Support, Email us: sales@noblecompany.com or phone us at: 800-878-5788. Field services are available through factory representatives and Noble Company staff. Contact Noble Company for local representatives. Additional product information and MSDS are available immediately through our website at www.noblecompany.com or our Fast Fax service at 1-800-272-1519. These are available 24 hours a day, 7 days a week.



FireFighter® Antifreeze

for Wet Fire Sprinkler Systems

Easy to Use • Easy to Maintain • Variety of Sizes Accessories & Testing Equipment Available

FireFighter non-toxic* antifreeze solutions are designed specifically for fire protection systems.

Use in place of water and other water-like fluids in sprinkler systems where freezing may either cause damage or interfere with the functioning of systems or equipment and/or toxicity to humans or animals is a concern.



FireFighter GL



SYSTEM COMPATIBLE

Glycerine solutions for CPVC wet fire sprinkler systems.



FireFighter PG

Propylene Glycol solutions for most metal wet fire sprinkler systems.



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FireFighter GL

FireFighter PG

System Protection:

Protection Description

Freeze Point is the temperature where the first ice crystal forms in the fluid.

Burst Point is the temperature where the fluid is solid, expanding and bursting the vessel.



FireFighter GL Ready-to-Use

| Specific Gravity @ 77°F | Freeze Point | Burst Point |
|----------------------------|-----------------|----------------|
| 1.127 | -15°F | -50°F |
| 1.119 | -5°F | -45°F |
| 1.112 | 0°F | -40°F |
| 1.095 | +10°F | -35°F |

FireFighter GL Concentrate

| Concentration % | Freeze Point | Specific Gravity @ 60°F |
|--------------------|-----------------|----------------------------|
| 70% | -40°F | 1.165 |
| 60% | -22°F | 1.151 |
| 50% | -15°F | 1.133 |
| 40% | +5°F | 1.100 |

FireFighter PG Ready-to-Use

| Specific Gravity @ 77°F | Freeze Point | Burst Point |
|----------------------------|-----------------|----------------|
| 1.033 | 0°F | -50°F |
| 1.028 | +10°F | -20°F |
| 1.024 | +15°F | 0°F |
| 1.020 | +20°F | +10°F |

FireFighter PG Concentrate

| Concentration % | Freeze Point | Specific Gravity @ 60°F |
|--------------------|-----------------|----------------------------|
| 60% | -60°F | 1.045 |
| 50% | -26°F | 1.041 |
| 40% | -6°F | 1.034 |
| 30% | +9°F | 1.027 |

*FDA Reference:

FireFighter GL & PG are virtually harmless to animals or plants; however, the disposal of these materials should be in conformance with national, state and local health codes.

FireFighter GL & PG are considered "Generally Recognized as Safe" by the Federal Food & Drug Administration.

Non-Toxic is used to describe extremely low, chronic and acute toxicity. No maximum safe intake for humans has been established.

Flammability:

FireFighter GL & PG are not flammable since they have no measurable flash point; however, both products can flash or burn if the water content is evaporated off. No harmful fumes are produced.

FireFighter GL

FireFighter PG

| | | | | |
|------------------------------------------------------------------|---------------------------------------------------------|--------------------|-------------------------------------------------------------------|--------------------|
| Ingredients: Active Ingredients: Other Ingredients: | USP or CP Glycerine Viscosity Reduction Agent Dye | | Propylene Glycol Viscosity Reduction Agent Dye Inhibitor | |
| | <u>Ready-to-Use</u> | <u>Concentrate</u> | <u>Ready-to-Use</u> | <u>Concentrate</u> |
| Physical Properties: | | | | |
| Color | Orange | Orange | Red | Red |
| Density @ 77°F (grams/ml) | 1.1263 g/cc | 1.2559 g/cc | 64.73 lb/ft | 66.18 lb/ft |
| Viscosity @ 77°F (Centipoise) | 6 | 1390 | 4.38 | 35.66 |
| pH | 7 | 7 | 8.0 - 9.0 | 8.5 - 9.5 |
| Boiling Point @ Atmospheric Pressure (760 mm) | 106°C | 290°C | 218°F | 310°F |
| Minimum Burst Temperature (Hard Freeze) | -50°F | +58°F* | -60°F | -100°F |
| Flash Point | n/a | 350°F | n/a | 214°F |
| Fire Point (Pensky-Martens Closed Cup) | n/a | 400°F | n/a | 220°F |

Tubing Size Charts:

Reference these charts when calculating the proper fluid capacity for a wet sprinkler system.

Copper Tube Type L

| Tubing Size | Gallons of Fluid Per 100 Feet |
|-------------|----------------------------------|
| 1/2" | 1.210 |
| 3/4" | 2.510 |
| 1" | 4.280 |
| 1-1/4" | 6.520 |
| 1-1/2" | 9.250 |
| 2" | 16.060 |
| 2-1/2" | 23.780 |

Schedule 40 Pipe

| Tubing Size | Gallons of Fluid Per 100 Feet |
|-------------|----------------------------------|
| 1" | 4.82 |
| 1-1/4" | 8.29 |
| 1-1/2" | 11.107 |
| 2" | 18.42 |
| 2-1/2" | 24.87 |
| 3" | 38.40 |
| 4" | 66.13 |

Polybutylene Tube

| Tubing Size | Gallons of Fluid Per 100 Feet |
|-------------|----------------------------------|
| 1/2" | 1.02 |
| 3/4" | 2.06 |
| 1" | 3.46 |
| 1-1/4" | 5.16 |
| 1-1/2" | 7.00 |
| 2" | 12.34 |

Blazemaster® Pipe

| Tubing Size | Gallons of Fluid Per 100 Feet |
|-------------|----------------------------------|
| 3/4" | 3.188 |
| 1" | 5.018 |
| 1-1/4" | 7.997 |
| 1-1/2" | 10.471 |
| 2" | 16.369 |
| 2-1/2" | 23.953 |
| 3" | 35.530 |

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