

FREEZE-FIGHTER SOLUTION

-50°F (-46° C) BURST PROTECTION

AF-SPEC

PRODUCT DESCRIPTION

PRODUCT

FREEZE-FIGHTER Anti-Freeze Solution and Heat Transfer Fluid for HVAC, Potable Water, and Solar Systems.

TYPE

Nontoxic Propylene Glycol Anti-Freeze Solution with special anti-corrosion inhibitors, color indicators, and burst protection to -50°F (-46°C).

RECOMMENDED USES

FREEZE-FIGHTER Anti-Freeze Solution is ideal for water based systems requiring maximum freeze and corrosion protection without the risk of environmental contamination.

FREEZE-POINT Anti-Freeze Solution works excellent in:

- Closed Loop Solar Systems.
- Hydronic HVAC Systems
- Potable Water Lines
- Sprinkler Systems
- Irrigation Lines
- Recreational Vehicles
- Pleasure Craft

FREEZE-FIGHTER Anti-Freeze Solution is a economical pre-blend to allow for direct replacement of water in the system with equal amounts of **FREEZE-FIGHTER** Anti-Freeze Solution for burst protection down to -50°F (-46°C). The direct replacement of water with anti-freeze, without having to measure or calculate the amount of anti-freeze needed, provides for an error free method to protect the system. **FREEZE-FIGHTER** Anti-Freeze Solution can also be diluted to offer higher freeze points and burst protection in warmer climates (see freeze and burst protection chart).

FREEZE-FIGHTER Anti-Freeze Solution lubricates pumps, valves and moving

RECOMMENDED USES CONTINUED

parts. **FREEZE-FIGHTER** Anti-Freeze Solution will not harm plastic or rubber seals, o-rings, or gaskets.

FREEZE-FIGHTER Anti-Freeze Solution is suitable for use with continuous operating systems with temperatures up to 250°F (107°C), and will not degrade significantly from short term exposures to temperatures up to 350°F (162°C).

COLOR/CONSISTENCY

Pink Liquid

ENVIRONMENTAL STATEMENT

FREEZE-FIGHTER Anti-Freeze Solution is nontoxic, nonflammable, and non corrosive. **FREEZE-FIGHTER** Anti-Freeze Solution eliminates the possibility of contaminating domestic and potable water systems. **FREEZE-FIGHTER** Anti-Freeze Solution will not support bacterial growth.

APPLICATION PRECAUTIONS

FREEZE-FIGHTER Anti-Freeze Solution has a greater tendency to leak past faulty joints than water, so all leaks must be properly corrected.

LIMITATIONS

Do not use in systems containing galvanized pipe or aluminum. Do not use in conjunction with boiler treatment chemicals without first consulting the manufacturer.

PACKAGING

U.S. Measure:

Stock Code	Size
AF1	1 gal. (3.78 L)
AF5	5 gal. (18.9 L)
AF55	55 gal. (208 L)

WEIGHT PER U.S. GALLON

8.34 lbs. (3.76 kg) ± 0.2

SHIPPING WEIGHT PER CASE

Stock#	Case Weight	#/Case
AF1	52 lbs. (23.4 kg)	6/case
AF5	43 lbs. (19.4 kg)	1/case
AF55	500 lbs. (225.2 kg)	1/case

DIRECTIONS FOR USE

1. Empty the entire system through faucets, petcocks, and other openings. Then close all openings.

2. Replace all water in the system with an equal amount of **FREEZE-FIGHTER** Anti-Freeze Solution to obtain -50°F (-46°C) burst protection. When using **FREEZE-FIGHTER** Anti-Freeze Solution to make less concentrated mixtures, use the Freeze and Burst Protection Chart to determine the correct dilution ratio to obtain the desired burst and freeze protection. Do not make mixtures less concentrated than shown on the table.

3. Be sure to protect all drains by adding **FREEZE-FIGHTER** Anti-Freeze Solution to traps and toilets to prevent freezing. Open each faucet to be sure **FREEZE-FIGHTER** Anti-Freeze Solution has displaced any water pockets. Close faucets when the pink color of **FREEZE-FIGHTER** Anti-Freeze Solution appears.

4. For circulating hot water heating systems and solar heating and cooling systems, **FREEZE-FIGHTER** Anti-Freeze Solution can remain in the system all year. Be sure to flush the system thoroughly of dirt, scale or oil prior to adding **FREEZE-FIGHTER** Anti-Freeze Solution.

5. Test the entire system for freeze protection and acid corrosion protection with **FREEZE-FIGHTER** Test Strips. Additional **FREEZE-FIGHTER** Anti-Freeze Solution may be required. Test the system annually.

(over)

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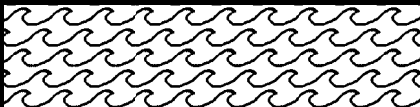
**NON-TOXIC
ANTI-FREEZE
PROTECTS SYSTEMS TO
-50°F (-46°C)**

TECHNICAL CHARACTERISTICS

FREEZE-FIGHTER SOLUTION FREEZE AND BURST PROTECTION CHART				
FREEZE PROTECTION	BURST PROTECTION	CONCENTRATION	PARTS BY VOLUME FREEZE- FIGHTER CONCENTRATE	PARTS BY VOLUME WATER
19°F (-7°C)		40%	2	3
16°F (-8°C)		50%	1	1
6°F (-14°C)		75%	3	1
-15°F (-26°C)	-50°F (-46°C)	100%	UNDILUTED	0

HOW TO SIZE YOUR SYSTEM

The capacity of your boiler can be found on the boiler plate, in the boiler manual or contact the manufacturer.
Use the following chart to help determine the number of gallons of **FREEZE-FIGHTER SOLUTION** be required to fill the system.

VOLUME/PIPE SIZING									
	PIPE DIAMETER								
	½"	¾"	1"	1½"	2"	2 ½"	3"	3 ½"	4"
Number of Gallons Per 100' Standard Steel Pipe	1.6	2.8	4.5	10.5	17.5	25.0	39.0	53.0	66.7
Number of Gallons Per 100' Type "L" Copper Tubing	1.2	2.5	4.3	9.3	16.1	24.8	35.4	47.8	62.0

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