



NOBURST[®] AL

ALL Metals (including Aluminum)
Antifreeze & Heat Transfer Fluid

Product Description

NOBURST AL is an antifreeze and heat transfer fluid for systems that contain Aluminum components. NOBURST AL has inhibitor technology that is compatible with all metals commonly used in hydronic heating systems including brass, cast iron, steel, solder, copper and aluminum. The product is to be used in place of water and other water-like fluids in systems where freezing may either cause damage or interfere with the functioning of the system. NOBURST AL is NOT safe for use when there is a possibility of contact with potable water.



Applications:

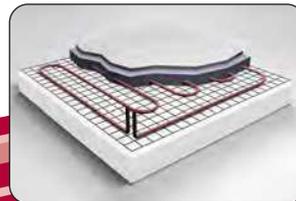
- Hydronic heating systems
- Infloor heating
- Snow melting systems
- Solar heating
- Cooling systems and chillers
- Cooling towers
- Water based heat extraction systems
- Refrigerating systems
- Industrial heat transfer

System Protection:

Protection Description

Freeze is the temperature where the first ice crystal forms in the fluid.
Flow is the temperature where the fluid will contain ice crystals but still flow.
Burst is the temperature where the fluid is solid, expanding and bursting the vessel.

| NOBURST AL | Freeze Point | Flow Point | Burst Point |
|------------|--------------|------------|-------------|
| 100% | -60°F | -70°F | -100°F |
| 75% | -30°F | -40°F | -80°F |
| 60% | -10°F | -20°F | -70°F |
| 50% | 0°F | -10°F | -60°F |
| 45% | N/A | N/A | N/A |
| 40% | N/A | N/A | N/A |
| 30% | N/A | N/A | N/A |
| 20% | N/A | N/A | N/A |



Sizes:

NOBURST AL is available in:

- 5-gallon plastic pails
- 55-gallon plastic drums
- 275-gallon plastic totes
- 5000-gallon tank trucks

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Installation:

No matter what type of system or equipment NOBURST AL is to be used in, several key steps are the same.

1. Clean the system with aluminum safe cleaner. Minerals, scale, rust and sediment can shorten the life of your system, reduce NOBURST's effectiveness and reduce heat transfer efficiency.

Check the system for leaks and repair any that are found. NOBURST AL may leak through some mechanical connections that do not leak with water. This is because of the viscosity of propylene glycol and water.

2. Measure total capacity of the system including the piping, tanks, boiler, collector plates, etc. The most accurate method of measuring fluid capacity is to fill the system and then completely drain it, volumetrically measuring the fluid drained.

Piping fluid capacity may be estimated using the pipe capacity chart on our website. Boiler and tank capacity must be obtained from the manufacturer of the equipment. Be sure all piping, collectors, and thermal expansion are accounted for in your estimates.

3. Determine the low temperature protection needed and the corresponding NOBURST AL concentration to use. Calculate the number of gallons of NOBURST AL to add to the system. ALLOW FOR ESTIMATE ERRORS WHEN DETERMINING THE AMOUNT OF NOBURST TO USE.
4. Make sure the system is empty, that the burner and pump are shut off, and that all zone and other valves are open so that no part of the system is isolated. Add NOBURST AL and then deionized or distilled water or pre-mix the NOBURST AL with water before adding the mixture to the system.
5. Remove all air from the system. Oxygen is required for corrosion to occur, so the less oxygen present, the better the corrosion resistance. Air can also reduce circulation, waste energy and cause noise.

Air is entrapped in water and other fluids and only is extracted over time, so several ventings or purgings may be necessary to have an airless system. Be certain to purge all air vents in the system.

6. Test the fluid after installation and thorough mixing to insure the proper amount of freeze protection is present. Test the fluid for pH and freeze protection using a pH test kit for pH and a propylene glycol refractometer for freeze protection.

System Requirements, Limitations & Cautions:

- NOBURST AL should not be used in systems where temperatures exceed 275°F or in systems that are permanently open to the atmosphere.
- NOBURST AL is NOT to be used in contact with or potential contact with potable water.
- Should not be used in steam systems.
- Should not be used as a coolant for internal combustion engines.
- Should not be used with CPVC.
- See MSDS for other information.

Flammability:

NOBURST AL is not flammable since it has no measurable flashpoint; however, if the product comes in extended contact with open flame, it is possible it will ignite. Material Safety Data Sheet is available upon request.

NB AL PD 06/08
Supercedes 08/07