



Advanced Antifreeze Technologies

PENRAY 2798

Penray 2798 is a carboxylate Acid -based inhibitor system. This antifreeze inhibitor package features a silicate-free, phosphate-free formula to provide trouble-free service in newer automobiles and light-duty gasoline-powered trucks. Antifreeze made with virgin glycol and Penray 2798 is compatible with GM Dexcool® brand antifreeze, first introduced during the 1995 model year. It is also compatible with similar “orange” carboxylate inhibited antifreeze brands. Penray 2798 offers the easiest method of manufacturing carboxylate (organic) technology antifreeze or engine coolant. Coolant contains 3.25 vol % 2798, antifreeze concentrate must contain 6.5 vol %.

Store above 75°F (23°C) before use.



BENEFITS

- Extended service formulation
- Easy liquid blending
- One part system
- Compatible with Dexcool and other “orange” coolants
- Silicate-Free
- Phosphate-Free

SPECIFICATIONS

- ASTM D-3306
- ASTM D-4656 Auto – Pre-diluted

Using and maintaining a properly formulated coolant is one of the most important aspects of engine maintenance. 40% of engine breakdowns are a direct result of improper coolant maintenance.

The Penray Companies, Inc.

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Penray 2798 @ 3.25% in 50% Ethylene Glycol
ASTM D-3306 and D-4985 Specifications

PENRAY 2798

Property	ASTM Test Method	ASTM Specification	Penray 2798 Performance
Specific Gravity @60°F	D-1122	1.110 – 1.145	1.130
Freezing Point F° (C°)	D-1177	50 Vol % in Distilled Water: -34°F (-37°C) Max or Lower	50 Vol % in Distilled Water: -38.8°F (-39.3°C)
Boiling Point ^A F° (C°) @ 100% Boiling Point ^A F° (C°) @ 50%	D-1120	325°F (163°C) Min 226°F (107.8°C) Min	328°F (164.4°C) 226°F (107.8°C)
Effect: Automotive Finish	D-1882	No Effect	No Effect
Ash Content, Mass %	D-1119	5% Max	0.29%
pH: 50 Vol % in Water	D-1287	7.5 – 11.0	7.6
Chloride, PPM	D-5827	25.0 Max	<2.0
Reserve Alkalinity, ml	D-1121	N/A	12.8
Foaming Tendencies	D-1881	Break: 5 sec Volume: 150 ml	Break: 3.3 sec Volume: 75 ml
Corrosion in Glassware Weght Loss, mg/speciman	D-1384		
Copper		10 Max	2
Solder		30 Max	1
Brass		10 Max	1
Steel		10 Max	0
Cast Iron		10 Max	0
Aluminum		30 Max	0
Simulated Service Weight Loss, mg/speciman	D-2570		
Copper		20 Max	2
Solder		60 Max	15
Brass		20 Max	5
Steel		20 Max	1
Cast Iron		20 Max	0
Aluminum		60 Max	0
Corrosion of Cast Aluminum Alloys at Heat Rejecting Surfaces mg/cm ² /week	D-4340 ^B	1.0 Max	0.175
Cavitation Erosion Rating: Pitting, Cavitation or Erosion of the Water Pump	D-2809	8 Min	8

^A Some precipitate may be observed at the end of the test. This should not be cause for rejection.

^B This test is not required by ASTM D-4985; however, ASTM D-3306 requires it.

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