



# ELC Corrosion Inhibitor 2798N

Formulation for heavy duty diesel engines includes nitrite, excludes silicate, phosphate and amines

Penray 2798N is a nitrated organic acid technology (NOAT) ELC corrosion inhibitor concentrate for heavy-duty diesel engines. This antifreeze inhibitor package contains nitrite and molybdate for heavy duty wet sleeve liner protection. 2798N is silicate-free, phosphate-free and amine free. Contains molybdate.

Antifreeze/coolant made with glycol consistent with ASTM E1177-14 and Penray 2798N is compatible with CAT EC-1 and other specifications listed below. Penray 2798N offers the easiest method of manufacturing NOAT technology antifreeze or engine coolant.

Antifreeze made with 2798N may be operated 300,000 miles. Adding a heavy duty NOAT ELC extender increases service to 600,000 miles.

Store above 75 °F (23.8 °C) to avoid gelling.

<b>Blending Instructions:</b>	50/50	Pre-dilute coolant contains 4.05% by volume of 2798N
	Concentrate	Contains 8.1% by volume of 2798N



- BENEFITS**
- Superior corrosion protection for aluminum, steel, iron, copper, brass and solder
  - Up to 600,000 mile cooling system corrosion protection with extender
  - Single system technology offers the easiest method of manufacturing
  - Compatible with Texaco® and Caterpillar® ELC and other “strawberry-red” NOAT coolants
  - Silicate, phosphate and amine free, contains molybdate
  - Lubricity agents extend water pump life

- SPECIFICATIONS**
- TMC RP-329A - ASTM D-4985
  - TMC RP-364 - ASTM D-3306
  - TMC RP-330 - ASTM D-6210
  - TMC RP-323

*Using and maintaining a properly formulated coolant is one of the most important aspects of engine maintenance.*



**Penray 2798N @ 4.05% in 50/50 Dilution**

**ASTM D-3306 and D-4985 Specifications**

Property	ASTM Test Method	ASTM Specification	Penray 2798N Performance
Specific Gravity @ 60 °F	D-1122	1.065 Min	1.1174
Freezing Point °F (°C)	D-1177	50 Vol % in Distilled Water: -34 °F (-36 °C) Max or Lower	50 Vol % in Distilled Water: -35 °F (-37 °C)
Boiling Point <sup>A</sup> °F (°C)	D-1120	325 °F (163 °C) Min 226 °F (107.8 °C) Min	339 °F (171.4 °C) 226 °F (108 °C)
Effect: Automotive Finish	D-1882	No Effect	No Effect
Ash Content, Mass %	D-1119	5% Max	1.2%
pH: 50 Vol % in Water	D-1287	7.5 – 11	7.95
Chloride, PPM	By IC	25.0 Max	1 ppm
Water, Mass %	D-1123	5 Max	3.4%
Foaming Tendencies	D-1881	Break: 5 Sec Volume: 150 ml	Break: 2.2 Sec Volume: 15 ml
Corrosion in Glassware Weight Loss, mg/specimen	D-1384		
Copper		10 Max	1
Solder		30 Max	-1
Brass		10 Max	1
Steel		10 Max	0
Cast Iron		10 Max	1
Aluminum		30 Max	2
Simulated Service Weight Loss, mg/specimen	D-2570		
Copper		20 Max	0
Solder		60 Max	3
Brass		20 Max	2
Steel		20 Max	6
Cast Iron		20 Max	1
Aluminum		60 Max	9
Corrosion of Cast Aluminum Alloys at Heat Rejecting Surfaces mg/cm <sup>2</sup> /week	D-4340 <sup>B</sup>	1.0 Max	-0.03
Cavitation Erosion Rating: Pitting, Cavitation or Erosion of the Water Pump	D-2809	8 Min	9

<sup>A</sup> Some precipitate may be observed at the end of the test. This should not be cause for rejection.

<sup>B</sup> This test is not required by ASTM D-4985; however, ASTM D-3306 requires it.

**Product Weight: 500 lbs/55 gallons**